DE GRUYTER
MOUTON

EVIDENTIAL MARKING IN EUROPEAN LANGUAGES

TOWARD A UNITARY COMPARATIVE ACCOUNT

Edited by Björn Wiemer and
Juana I. Marin-Arrese

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Preface

Europe has in general been considered an area with a low level of grammatical evidentiality marking, but those means that are not organized in a tighter paradigmatic fashion have never been described comprehensively. The present volume unites a collection of comprehensive descriptions of evidentiality marking, with a focus on lexical, or 'extra-grammatical', means. We can call these descriptions language-specific profiles, and such profiles are here proposed for a variety of European languages and with an attempt to abide by a largely unified framework of descriptions. The latter is important to better compare profiles of evidentiality marking, also in order to improve comparability with languages outside of Europe.

The main body of the book is occupied by these profiles. Apart from that, there is an introductory chapter providing the theoretical premises and other background behind the profiles, and a concluding chapter which supplies conclusions and a synthetic survey of the evidential profiles on the backdrop of Europe as a whole.

Björn Wiemer and Juana Marín-Arrese
Mainz/Madrid, July 2021

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Björn Wiemer and Juana I. Marín-Arrese

1 Introduction

This book aims to provide a step towards a unified description of units with evidential core meanings in European languages, and this introduction will attempt to spell out the conceptual premises of this endeavor. Europe is an area in which grammatical marking of evidentiality is attested comparatively poorly, at least if one compares evidentiality in these languages with the "classical" evidential systems of American Indian languages described by linguistic anthropologists Franz Boas and Edward Sapir (Boas 1938), or from a perspective like Aikhenvald's in which evidentiality is restricted to paradigmatically tight systems, that is, "source of information – whether seen, heard, or inferred – as obligatory aspects" (Aikhenvald 2004: 1). In fact, on average, European languages are not characterized by the use of specialized markers with core evidential functions that come close to the bound pole in morphologization clines (from autonomous words to affixes), i.e. we hardly find any verbal affixes or clitics that can be considered as morphemes specialized in marking information source. We do find, however, some verbal (sub)paradigms, i.e. TAM-morphology, which have acquired reasonably stable evidential functions (e.g., in Balkan Slavic, Baltic languages, or in some Romance languages), or some perceptual verbs in a petrified PRS.3SG-form with core evidential meaning, e.g. in some Romance languages, as well as modal auxiliaries that have moved into the evidential domain at different stages of conventionalization (cf. van der Auwera and Plungian 1998; Dendale and Tasmowski 2001). For these expressions the question arises as to how stable the 'evidential overtones' are, insofar as they cease to be mere evidential strategies and can be ascribed as full-fledged members to inventories of evidential markers of the respective language. This question has, in fact, come up in quite a number works; cf., for instance, Boye and Harder (2009); Lampert and Lampert (2010); Wiemer (2010).

As Lampert and Lampert (2010: 319) argue, for European languages "the category of evidentiality is of use only, we conjecture, if a radical conceptual stance is taken in order to not miss capturing alternative linguistic strategies of expressing this notion". Thus, what the contributions to this volume concentrate on is not grammatical paradigms, or bound and clitic morphology oriented toward the verb (or verb phrase), but basically units that have a distinct status as evidential expressions and, for this reason, can be considered lexical units, with varying relevance for the particular language's grammar. In their majority, these units are usually referred to as 'function words', which here include, for the time being, sentence adverbs. In other traditions they are called 'synse-

mantic', since they cannot stand by themselves (in isolated utterances) and do not have independent referential meaning (cf. Lehmann 1995). Function words have often been considered outcomes of grammaticalization, simply because they are not "autonomous", but either structurally depend on other units, or serve as modifiers of larger units. In the following, this line of argumentation will be avoided, since it raises a couple of awkward and basically unsolved issues (discussed in grammaticalization research) which are tangential to the task to be undertaken here (see however Section 1.2). For the time being, suffice it to say that function words can also be viewed as results of lexicalization, i.e. "a process by which new linguistic entities, be it simple or complex words or just new senses, become conventionalized on the level of the lexicon" (Blank 2001: 1603).

In sum, this book represents an attempt at taking stock of units with core meanings in the domain of information source, and this is done for different European languages and language families. Apart from the focus on function words (as distinct lexical units) we will also account for certain constructional frames, without deciding how these might be implemented in a "lexicon" of evidential marking. Thus, to a large extent, this volume is about the systematic lexicography of evidential marking that supplies a basis for crosslinguistic comparison, in an area that has been neglected in research in evidentiality so far, even for languages otherwise well-known and well-documented. In a sense, this volume can also be read as a digest of evidentiality marking in a larger part of European languages.

This purpose requires us to look for *tertia comparationis*, indispensable for any contrastive analysis and, as we think, for a methodologically sustainable and more useful lexicographic account of the units in question. We hope that the conclusions we are able to draw from our analysis will prove helpful for arriving at a more adequate comparative treatment of so-called 'function (or: synsemantic) words' with evidential meanings in Europe (and, hopefully, other parts of the world).

The remainder of this introduction is structured as follows. We will first give a short characterization of evidentiality as a notional domain and discuss what is regarded as 'evidential unit' (or 'evidential') in this volume (Section 1.1). This brings us to an assumed lexicon – grammar cline and its problems (Section 1.2) and the way more specific evidential meanings can be distinguished in taxonomies and networks, and how they might be decomposed (Section 1.3). We will then comment on the distinctions accepted for this volume and give a short overview over its contributions in Sections 1.4–1.5.

1.1 Evidentiality and evidential units

We understand evidentiality as a notional (i.e. conceptual, or substance) domain which deals with information source (cf. Boye and Harder 2009). That is, on the one hand, we abide by the often cited definition from Aikhenvald (2003: 1; cf. also Aikhenvald 2004: 3):

[1] Evidentiality proper is understood as stating the existence of a source of evidence for some information; that includes stating that there is some evidence, and also specifying what type of evidence there is.

On the other hand, we do not restrict ourselves to means considered grammatical (however defined; see Section 1.2), but treat evidentiality on a par with such notional domains like temporality, actionality (sometimes also called aspectuality), modality, counting and measurement, or possession, which are opposed to grammatical categories like tense, aspect, mood, number.[1] We are concerned with distinct markers and construction types which can be considered the core of "the linguistic encoding of the speaker's information source for a particular statement, a proposition" (Foolen et al. 2018: 1) in the languages selected for this volume. Work on this volume has been guided by the conviction that an account of evidentiality marking beyond (assumed) obligatory grammatical means substantially adds to an adequate characterization and delimitation of evidentiality as a conceptual domain (cf. Marín-Arrese 2015: 212).

In order to narrow down the range of means to be considered as evidentials – and, thus, in order to make the task of language-specific stock-taking of evidentials manageable – the four criteria formulated in Anderson's (1986) classical article still prove very useful as a point of departure.[2] His criteria for archetypal evidentials were the following (Anderson 1986: 274f.):

[2] (3a) Evidentials show the kind of justification for a factual claim which is available to the person making that claim, whether
    direct evidence plus observation (no inference needed)
    evidence plus inference

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1 Note that the definition in [1] does not specify whether evidentiality should be considered a grammatical category. Moreover, as concerns nomenclature, the parallels of *evidential-ity* with other widespread terms suffixed with *-ity* would rather suggest that we are dealing with a substance domain, not with a grammatical category. See also the insightful discussion by Squartini (2018), who however strangely finds that "this terminological neatness very naturally leads to Aikhenvald's 'grammar only' perspective" (Squartini 2018: 276f.).

2 Like Aikhenvald, Anderson understands evidentials as a "special grammatical phenomenon".

> inference (evidence unspecified)
> reasoned expectation from logic and other facts
> and whether the evidence is auditory, or visual, etc.   [condition a]
> (3b) Evidentials are not themselves the main predication of the clause, but are rather a specification added to a factual claim ABOUT SOMETHING ELSE [i.e. the propositional content of the utterance].   [condition b]
> (3c) Evidentials have the indication of evidence as in (a) as their primary meaning, not only as a pragmatic inference.   [condition c]
> (3d) Morphologically, evidentials are inflections, clitics, or other free syntactic elements (not compounds or derivational forms)."   [condition d]

Condition [a] captures the conceptual core of evidentiality, specifically it delimits evidentiality from epistemic modality. Boye (2012: 2–3) views evidentiality and epistemic modality as distinct domains, but groups them as subcategories of the conceptual domain of 'epistemicity', conceived as justificatory support for the truth of the proposition: evidentiality provides "epistemic justification", which is characterized in terms of "source of information", "evidence" or "justification", whereas epistemic modality provides "epistemic support", and involves the features of "degree of certainty" and "degree of commitment".

Andersons's condition [b] names a behavioral property directly relevant for an evidential's contribution to the utterance, which is located on the interface between syntax and illocution (or sentence mood). In particular, it does not "allow" evidentials to function as the predicate of a clause, but restricts them to the function of clausal modifiers. This, in turn, requires a clarification of scope and head – modifier relations (on which see Section 1.2).

Criterion [c] is a semantic condition requiring a clear-cut (non-*ad hoc*) understanding of coded vs. inferred meaning (components) (see below). Condition [d] restricts the inventory (or class) of potential evidential units on a morphosyntactic level. Note that here the crucial distinction is made between units belonging to clines from free to bound morphemes, on the one hand, and units normally considered as new lexical items composed of two (or more) lexical stems or a lexical stem plus some "semi-lexical" element, on the other. In whatever way compounds and derivational forms may be united and opposed *in toto* to units distinguishable on a free –bound cline of morphemes, the crucial point for Anderson seems to have been that units which he recognized as potential evidentials must **jointly** fulfill two conditions: (i) they must **not** be just **parts** of words (in the sense of lexical units), and (ii) they are just operators, not units with some sort of "lexical" (i.e. not merely functional) content. Evidentials can be parts of word forms (as fused or agglutinated morphemes), or they may be clitics, but as such they play a subsidiary role, both morphologically and functionally, in relation to the stem or phrase they modify. And they can be "free

syntactic elements" (i.e., distinct words in a morphosyntactic sense), but then their evidential meaning is subsidiary to other constituents of the clause as well. In fact, this subsidiary status becomes one of the cornerstones in delimiting possible inventories of evidential markers (see below).

In the remainder, compounds and derivational formations will not play any role, since in the languages dealt with in this volume linguistic means which satisfy criteria [a–c] and are also compounds or derivational morphemes do not seem to exist. Thus, criterion [d] hardly seems to be an issue for European languages. The "behavioral" criterion [b] will be followed with certain exceptions, which we will comment on in passing. This criterion is directly related to the aforementioned subsidiary role which evidential markers play in relation to units of larger formats. Criterion [b] has to do with the distinction between discursively primary vs. secondary usage and the conventionalization of the latter, which Boye and Harder (2009, 2012) make a cornerstone in their treatment of grammatical meaning and grammaticalization. According to them, if a unit has secondary status in discourse, it cannot be addressed (unless metalinguistically), i.e., it can neither be negated, nor contrasted, nor become the target of a question. Thus, while, for instance, in (1a) the tag question targets *I think* (including the propositional content of its clausal argument), in (1b) the question relates only to the clause following *I think*. That is, *I think* can "switch" its communicative status, and only in (1a) can it have discursively primary status:

(1)   a.   *Well [I think it's just a mess about place], don't you?*
        → primary discourse status of *I think*   [BNC: KE6 7437]
   b.   *I think [he fits in very well], doesn't he?*
        → secondary discourse status of *I think*

Here two points are important. First, the switch between primary and secondary status can go back and forth, as required by the communicative need (i.e., speakers' intentions) on specific occasions. Second, the expression *I think*, which marks an epistemic attitude, in either usage keeps its semantic scope over the propositional content of the clause which follows it. This scope is independent from the syntactic relation between *I think* and that clause, i.e., it is unaffected by the question whether that clause is interpreted as a clausal complement of *I think* (i.e., a tight syntactic connection) or not (e.g., just in juxtaposition).

In view of such observations, Boye and Harder (2009, 2012) consider a unit (or construction) grammatical(ized) if secondary discourse status has become a conventionalized feature, i.e., the "switch" illustrated above cannot be reversed anymore. The difference between conventionalized and occasional (and thus reversible) secondary status can be clearly seen when we compare, for instance, units often dubbed 'particles' with parenthetical expressions. The use of *I think*

in (1b) can be interpreted as a parenthetical expression, but only because it is discursively secondary in relation to the clause which it comments on (*he fits in very well*). One can argue whether this downgrading of communicative prominence is conventionalized (as the use of *I think* as a speaker-oriented comment is very frequent), but whether occasional (created "on the fly") or conventionalized, in (1b) *I think* only has secondary discourse function. If, instead, some particle (e.g., *perhaps*, *maybe*) or a sentence adverb (e.g., *fortunately*, *certainly*) were used, their secondary discourse function would be conventional, as these expressions are used **exclusively** as comments on the propositional content of the utterance.

The following examples from Russian and Polish show the close functional (i.e. communicative) similarity between particles and parentheticals indicating information source. The (a)-examples show particles, their discursively secondary role is conventionalized: they can be stressed only for metalinguistic purposes, they can never be negated or addressed in questions, etc. By contrast, the (b)-examples contain parenthetical expressions; though being quite frequent (with the given grammatical shape and lexical "filling"), they comply with a broader constructional pattern used for parentheticals. In particular cases, finite forms of verbs (usually the 3SG.PRS.IND form) can be considered particles, i.e. lexicalized units; a case in point is Russ. *kažetsja* 'it seems, apparently' (< *kazat'sja* 'seem') in (2a).

       Russian

(2) a. *A tret'ju* [čast'] *ja, vrode, kogda-to pytalas' posmotret', no osilila minut 10–15, **kažetsja**.*
        'And the third [part] I, like, once tried to look, but mastered (only) 10–15 minutes, **it seems**.'   [RNC; Forum: "Blade" (trilogy). 2008–2010]

     b. *Ja sejčas vključu ventiljator, i ešče budet muzyka, pod kotoruju, **kak mne kažetsja**, legče ponjat', legče počuvstvovat', kak vsë ėto odnovremenno letit...*
        'Now I will turn on the fan, and there will be some more music, to which, **as it seems to me**, it is easier to understand, easier to feel how all this is flying at the same time...'
                        [RNC; E. Griškovec. OdnovrEmEnno. 2004]

(3) a. *Pater patrzył na niebieski żel do golenia rozmazany na szybie i żałował, że nie pali papierosów. One **ponoć** uspokajają nerwy.*
        'Pater stared at the blue shaving gel smudged on the glass and felt regret that he did not smoke cigarettes. They **are said** to calm the nerves.' (lit. '... They **allegedly** calm the nerves.')
            [PNC; M. Krajewski & M. Czubaj: "Róże cmentarne". 2009]

b. *Tutaj nawet mniej widać, że jestem obca. Chociaż jak zawsze zawisam*
w powietrzu, poza grawitacją, bez punktu ciężkości. Niektórzy to widzą,
*a przecież, **mówi się**, to miasto jest otwarte dla odmieńców.*
'It is even less obvious here that I am a stranger. Although, as always,
I hover in the air, out of gravity, with no center of mass. Some see it,
and yet, **it is said**, this city is open to misfits.'

[PNC; I. Filipiak: "Magiczne oko". 2006]

However heterogeneous and complex the internal structure of parentheticals
may be, they are generally defined as comments on the propositional and/or
illocutionary content of some host, the latter usually being the remainder of the
respective clause or even of an entire sentence (or utterance). As such, paren-
theticals in general do not bear a syntactic relation to elements of their host, i.e.,
they are independent from the constituent or dependency structure of the latter.
Thus, Burton-Roberts (2006: 179) defines a parenthetical (P) as "an expression
of which it can be argued that, while in some sense 'hosted' by another expres-
sion (H), P makes no contribution to the structure of H".[3]

All these properties are the same for particles that operate on propositions
(and/or illocutions), except for the fact that they cannot "undo" their discur-
sively secondary status. In this sense (according to Boye and Harder), they can
be regarded as conventionalized markers of discursively secondary status that
scope over propositions. In vein with Anderson's criterion [b] they do not repre-
sent the main predicate of the (simple or complex) sentence, but just comment
on something else, namely a proposition.

Furthermore, Boye and Harder (2009) take the probably most radical stance
toward evidentiality as a substance domain in that they include into it all means
regardless of their status in terms of discourse prominence (and its conventionali-
zation). This includes prosody as well as full-fledged verbs with meanings denot-
ing perception, speech acts, epistemic attitudes or inferencing processes and
other "autosemantic" lexical units. Consequently, Boye and Harder dismiss An-
derson's criterion [b] as being not crucial for delimiting evidentiality as a sub-
stance domain. However, this criterion turns out to be very useful for a subdivi-
sion of expression classes that mark evidentiality, and this is why we "keep" it.

A similar case can be made for Anderson's criterion [c], i.e. the distinction
between coded and inferred meaning. Evidential meanings are inferred if they
are calculated "online" under specific (and changeable) discourse conditions;
they are coded if this meaning does not depend on the context but, conversely,

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3 Cf. also Grenoble (2004); Dehé and Kovalova (2007: 9); Grochowski (2007: 69); Kaltenböck
(2007: 31), among many others. For a survey cf. Sonnenhauser (forthcoming).

arises as a stable contribution to utterance meaning made by the respective unit. In a sense, inferred evidential meaning has to do with what Aikhenvald dubbed 'evidential strategies'. This term has been vaguely used either for evidential extensions of grammatical markers (or paradigms) with well established, but other grammatical values (e.g., perfects extending into indirect evidentiality), or for lexical, or 'extragrammatical' (Squartini 2018: 275), markers of evidentiality. In either case, evidential functions are assumed to arise as a cancellable side effect; and in either case the question arises as to what 'grammatical evidentiality marking' means (see Section 1.2).

To sum up: among Anderson's (1986) criteria we disregard criterion [d] as being hardly of practical use (for our purposes), while we in general accept his criteria [a-c] as a basis for a "stock-taking" of evidential units. This stands in contrast to Boye and Harder (2009), who dismiss all of Anderson's criteria but [a], which, in fact, just captures the notional delimitation of evidentiality (or information source) from epistemic modality. Since we are concerned with the conventionalized character of marking devices (criterion [c]) and in general abide by criterion [b], the range of units which are considered in the contributions to this volume basically belong in the category 'Discursively secondary use: conventionalized', as can be seen in the grey-shadowed box in Figure 1 (cf. Cornillie et al. 2015).
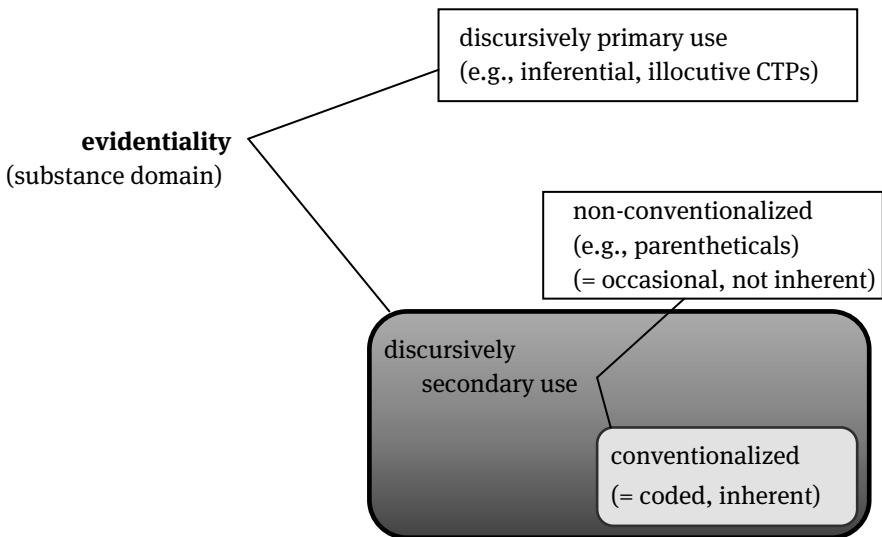
Figure 1: Delimitation of evidential markers within evidentiality as a substance domain.

1.2 The lexicon – grammar cline

In order to compose an inventory of evidential units for a specific language, and also for the purpose of crosslinguistic comparison, we need to be explicit and consistent in what 'grammatical' and 'lexical', and respectively 'grammaticalized' and 'lexicalized', are supposed to mean.

Contrary to Boye and Harder (2009; 2012), we do not assume that the conventionalization of discursively secondary use is *eo ipso* indicative of grammaticalization. If we apply Anderson's (1986) first criterion (the only one accepted also by Boye and Harder), we see that this criterion applies to sentence adverbs, modal particles, complementizers and to adpositions alike; among all these expression classes we find representatives with evidential functions (either as core functions or as evidential strategies). However, all these units are lexical units, in the first place; consequently, their genesis should first of all be viewed as lexicalization. Both grammaticalization and lexicalization involve reduction processes, but only grammaticalization implies that particular units are combined (in a slot-like manner) with an open host class (Himmelmann 2004). Lexicalization produces irregularity and loss of internal structure (transparency); a complex unit loses its compositional character and ends up as a holistic unit (e.g., a verb form petrifies, like Lith. *girdì*.PRS.2SG 'hear' > reportive particle, or it fuses with another element, e.g., a complementizer, as with *dicen que* 'they say that' > *dizque* as a reportive particle in some varieties of Spanish; cf., Marín-Arrese 2020). By contrast, grammaticalization yields a compositional frame in which some units of a class A (= closed set) paradigmatically replace each other and productively combine with units of another format B (= open set).[4]

Thus, the crucial difference between grammaticalization and lexicalization lies in the combinatorial potential and the cognitive access to the output of processes: "A sign is lexicalized if it is withdrawn from analytic access and inventorized. On the other hand, for a sign to be grammaticalized means for it to acquire functions in the analytic formation of more comprehensive signs" (Lehmann 2002: 1). Following further on Lehmann (2002), lexicalized units (e.g., function words) can (but need not) become the "input" of grammaticalization processes – on condition that they be combined with an open host class. This host class has a larger format, and it is no accident that much of the theorizing about grammaticalization has stressed that grammaticalization does not

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4 This is compatible with Boye and Harder (2012), since the relation between units of the two sets is asymmetrical and the combination of both remains transparent exactly **because of** their asymmetry.

apply to relatively simple (morphological) elements as such, but to conditions of their occurrence in some constructional frame (cf., for instance, Bybee et al. 1994; Noël 2007; and contributions to Bergs and Diewald 2008) or, to repeat Lehmann, "in the analytic formation of more comprehensive signs".[5] Some researchers furthermore emphasize that grammaticalization implies the rise of predictable replacement conditions, which lead to paradigm-like structures (cf., for instance, Diewald 2006, 2009). Tight paradigms – as with inflectional affixes marking categories like tense on verb stems or case on nominal stems – are but an extreme on the relative end of morphologization clines. However, morphologization (... cliticization > agglutination > fusion) is not by itself indicative of grammaticalization; *prima facie*, it just leads to a loss of transparency and to a holistic access to new signs.

Thus, if we assume function words (incl. sentence adverbs) to participate in grammaticalization, we should ask for an open host class of larger format within which these words occupy predictable positions (slots). Consequently, since typically evidential markers modify (or: scope over) propositions (see Section 1.1), any claim that they grammaticalize would require us to show that we can, to some extent, predict their occurrence in certain positions of utterances that contain propositions. Such utterances have to be regarded as their hosts (just as noun stems are the hosts of case markers, or verb stems are the hosts of tense markers). However, apart from the problem of obligatoriness (not dealt with here), the amount of such utterances is not only open (as is the class of nouns or verbs of a language), but practically endless (since utterances cannot be inventorized as can nouns or verbs). For this reason our assumption concerning function words and their hosts ("more comprehensive signs") does not appear very informative, unless we succeed in pinpointing specific structural constraints on the appearance of propositional modifiers. However, more often than not the criteria for their subdivisions and crosslinguistic comparison remain in the realm of semantic (or pragmatic) compatibility (including here distinctions of sentence mood: declaratives, interrogatives, commands, exclamatives) and, maybe, co-occurrence restrictions with markers showing a tighter paradigmatic organization (e.g., auxiliaries or bound morphology).

With such premises in mind, the original idea was to create a database of evidentiality markers, or: a comparative inventory of lexical markers with evi-

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5 Whether, and under which conditions, grammaticalization can do without 'elements' (morphemes etc.) is an issue that need not concern us here, since the contributions to this volume – as well as lexicon – grammar clines (whatever their premises) – presuppose distinct, phonologically realized elements.

dential functions, or: the lexicography of evidential marking, in European languages. In Wiemer and Stathi (2010) and Wiemer (2010: 63) a lexicon-grammar cline of evidential markers was proposed; it is reproduced (with slight modifications) as Figure 2. More appropriately, it should be considered a morphosyntactic cline on which units of different format are arranged. To what extent the units in its left half are considered grammatical is theory-dependent at a larger degree than this applies to units in the right half, and this has to do with the problems mentioned in the preceding paragraph. The localization of the various expression classes on the cline is tentative and simplified. In fact, a multidimensional arrangement would be necessary, since obviously more than one opposition is required to capture the differences in the interaction between semantic and structural scope of the relevant units (see Section 1.2.1 and Table 1).[6] Moreover, the array of expression classes on the cline is probably not exhaustive; for instance, it lacks "places" for construction types like those subsumable under raising (a.k.a. matrix coding), or with participles or other non-finite verb forms (well attested, for instance, in Baltic and Finnic) as clausal nuclei. These could in principle be added, provided a way is found to better represent the multidimensional space.

distinct lexical units   grammatical
morphology

← —————————————————————————————— →

particles   functional extensions
of TAM paradigms

       complementizers   auxiliaries
adpositions

sentence adverbs   bound morphology
     predicatives   (affixes)

syntactically independent/ propositional scope not mediated via larger constituents	operate on lexical heads/ asymmetry between syntactic and semantic scope

Figure 2: Evidential markers on a morphosyntactic cline.

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6 Another reason for simplification is that (formal) syntactic approaches differ quite a lot in their treatment and definition of notions like 'head', 'dependent', and 'modifier'.

To repeat, the basic idea was that expressions which fulfill Anderson's (1986) criteria [a] and [c] can be arranged on a cline between a lexical and a grammatical pole. After a compact characterization of the expression classes arranged on this cline we will comment on more specific issues concerning particular classes.

The grammatical pole of the lexicon – grammar cline is occupied by bound morphology and grammatical paradigms (TAM forms), as in the following examples from Spanish (cf. Marín-Arrese 2018) with *habrá/n* (Future Perfect; inferential 'must have') and *habría/n* (Conditional Perfect; reportive 'reportedly'):

Spanish

(4)   a.   *Conviene recordar que en Kosovo nadie ha entregado las armas, los serbios se las han llevado*

        y   *el*   *ELK*   *las*   **habrá**   **escondido**.
        and   the   ELK   3PL.ACC   FUT.PRF.3SG   hide.PST.PTCP

        'It is important to remember that in Kosovo nobody has surrendered their weapons, the Serbs have taken them away and the ELK **must have hidden** them.'   [CESJD: SOP]

    b.   *Hobeika* **habría** **dejado**   *grabaciones*   *y*   *pruebas*
        Hobeika   COND.PRF.3SG   leave.PST.PTCP   recordings   and   proof.PL

        que implican a Sharon en la masacre de Sabra y Chatila.

        'Hobeika [lit. **would have left**] had **reportedly** left recordings and evidence which implicate Sharon in the massacre in Sabra and Chatila.'   [CESJD: SNA] [Marín-Arrese 2018: 95]

The lexical pole consists of sentence adverbs and function words (particles, complementizers), but also of predicatives. The latter are, as a rule, uninflected units (as Pol. *widać* in ex. 5) or they are parasitic on marginalized grammatical values (like the neuter of adjectives in Lithuanian, see ex. 6).[7] They differ from function words in having their own argument structure, and one of their arguments can be a clause (cf. Wiemer 2019: 128–138); compare

Polish

(5)   *Widzisz? Żaden celnik do tego się nie przyjebie. Przyjrzyj się śrubom. Bez piasku jesteśmy od razu na celowniku, bo* **widać**, *że odkręcane były*.

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7 Pol. *widać* 'can be seen' represents a paradigmatically isolated infinitive ('see'), the neuter in Lithuanian has almost vanished as a control gender, but has been retained in adjectives (and participles) in predicative use. For details cf. Wiemer and Socka (this volume), Usonienė and Ruskan (this volume), Wiemer (this volume: Section 15.1.7.5, Section 15.2.5).

'You see? No customs officer will use it. Take a look at the screws. Without sand, we are immediately in the crosshair, because **you can see** <u>that they had been unscrewed</u>.'

<div align="right">[PNC; M. Olszewski: Chwalcie łąki umajone. 2005]</div>

Lithuanian

(6)   *Kinijos akcijų rinkos kapitalizacija vis dar palyginti menka, tad* **panašu**, <u>*kad ateinančiais metais*</u> <u>*Kinijos kapitalo rinka dvigubės ar net trigubės*</u>.
'The capitalization of the Chinese stock market is still relatively weak, so it **can be inferred** <u>that</u>/**looks** <u>like the Chinese capital market will double or even triple in the coming years</u>.'   [KLC; Verslo žinios. 2008]

This shows that predicatives do not comply with Anderson's criterion [b], nonetheless they form a significant part of the "evidentiality profile" of these languages (cf. Wiemer, this volume: Section 15.2.5).

The middle section of the cline is occupied by auxiliaries and adpositions. Auxiliaries, such as Germ. *sollen* or Pol. *mieć* (both characterized by a deontic-reportive meaning alternation) or *MUST*-auxiliaries in various European languages, combine with some form of a lexical verb; they cannot occur on their own (apart from ellipsis in turn-taking), in morphosyntactic terms their scope is restricted to the verb phrase. An analogical point holds true for adpositions. They cannot occur without their nominal complements and are, in this respect, constrained morphosyntactically to noun phrases.

It should be emphasized that distinctions of morphosyntactic format and, respectively, a cline from free to bound morphemes, as captured in Figure 2, reflect different stages of structural autonomy and, respectively, of structural scope; thus, units closer to the bounded end have narrower structural scope than units closer to free-word status. However, the format of morphosyntactic expressions does not necessarily correlate with semantic scope, nor with distributional properties on utterance level. Perhaps, the difference between both dimensions becomes clearest when we compare clitics and so-called modal particles. Clitics are defined on a morphosyntactic scale of boundedness (or coalescence) as morphemes that need a prosodic host (for whatever function), whereas modal particles are defined via their function in utterances, namely by their scope over propositions (to which they add some knowledge-related or illocutionary value), regardless of whether they also behave like clitics (some do, as Germ. *ja* in 7a) or not (many do not, as Germ. *schließlich* in 7b).

(7)   a.   *Fangen wir schon einmal ohne Ernst an. Er kommt* **ja** *heute später.*
<div align="right">[own knowledge]</div>
      b.   *Fangen wir schon einmal ohne Ernst an.* **Schließlich** *kommt er heute später.*   [own knowledge]
'Let's start without Ernst. He **anyway** is coming later today (you know).'

Remarkably, (7a) and (7b) are identical in propositional meaning, and the appeal to knowledge-backgrounds which they make differs only subtly. Modal particles are not evidential markers (see Section 1.3.3), but evidential particles likewise can be divided into those that behave like clitics and those which do not. The former can be illustrated with Ba. *omen* (see 8),[8] the latter with Pol. *podobno* (see 9).

(8) *Aitak*   ***[omen** du]*   *aurdiki*
     father.ERG.FOC   PROCL   AUX   throw
     '**Apparently**, it was father who threw it.'

                                    [Hualde and Ortiz de Urbina 2003: 317]

(9) *Bator*   ***podobno***   *wyjecha-ł*   *na mistrzowski kurs karate.*
     PN[M]-(NOM)   reportedly   drive_away[PFV]-PST-(SG.M)
     '*Bator **reportedly** went to a karate master course.*'

                                   [PNC; M. Czubaj: 21:37. 2010]

What particles and clitics share is their discursively secondary status (see Section 1.1), but it is an open empirical matter to show how systematically this property conditions clitic behavior of particles and, above that, to what extent 'clitic particles' enter into "one (or part of one) obligatory inflectional system" (Aikhenvald 2004: 70).

    Jointly with this, confusion as to what evidential markers scope over (see Anderson's condition [a] in Section 1.1) has to a large part arisen because structural (i.e. morphosyntactic) and semantic scope have not been kept apart. As pointed out above, structural scope correlates with the cline in Figure 2, whereas the semantic scope of evidential markers is propositions (Boye 2010, 2012, 2018). Whether this holds only for core units of this domain, or whether other ontological concepts (states of affairs, illocutions) should be considered as well, does not seem to be a question about the "essence" of evidentiality marking, but an issue of how far one wants to stretch this domain, and what are the practical consequences in the "inventorization" of linguistic expressions that mark evidentiality.

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8 The Basque hearsay particle *omen* ('reportedly', 'as they say') functions as a proclitic to the finite verb; it differs from affixes in that it "can occur independently in contexts where the finite verb has been deleted" (Rijk 1972: 131). Monforte (2018: 339) observes that evidence of the proclitic relation is found in focus contexts, where "the inflected verb is fronted in eastern dialects, carrying the particle along with it", as in (8). In the rest of the dialects of Basque the canonical order would be used: *aurdiki omen du.* (We are indebted to Karlos Cid Abasolo and Larraitz Zubeldia for comments on this example.)

A good case to illustrate the distinction between semantic and structural scope is modal auxiliaries. It seems to be generally acknowledged that an epistemic function of modal auxiliaries develops last, i.e. after deontic and circumstantial ('dynamic') meanings (cf. Traugott 1989: 35–43; van der Auwera and Plungian 1998). This extension is accompanied by an expansion of semantic scope from the level of states of affairs to propositions; the same applies if evidential functions appear (cf. Boye 2012). However, on the morphosyntactic level, i.e., as for structural scope, nothing changes.[9] Another case in point is manner adverbs (scoping over verb phrases and, thus, SoAs, when they develop into sentence adverbs (or particles). See the following examples from Russian (10).

Russian

(10) a. *Ja **točno** znaju, čto esli stučat' vo vse vozmožnye dveri, tebe xot' gde-to otkrojut i pomogut, no vidimo ja prosto sliškom ustala stučat'.*
'I know **for sure** that if you knock on all possible doors, somebody will open and help you at least somewhere, but apparently I'm just too tired of knocking.' [Запись LiveJournal. 2004]
→ manner adverb, scope over SoA

b. *Ne znaju, kak v univere, no mne v kolledže **točno** legče.*
'I don't know about university, but college is **definitely** easier for me.'
[RNC; Forum: Škola ili univer – gde legče? 2006]
→ sentence adverb, scope over proposition

1.2.1 Relations between units and their "hosts"

This said, we may say that typical markers of the grammatical pole, i.e. affixes (bound morphology), modify lexical heads in a strictly morphosyntactic sense, whereas typical markers on the lexical pole select some sort of host which they modify, but which they do not depend on in syntactic terms; modification applies on the level of the proposition (see above). Here belong sentence adverbs and certain particles, most of them are usually subsumed under 'modal particles'. Evidential markers with other morphosyntactic formats do not fall under either of these two extremes. Predicatives constitute clausal nuclei and have arguments on their own. Therefore, they neither modify (or depend on) other heads, nor are they elements used "on top" of constituent structure; that is, they

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9 Confusion as for this point has been a recurrent source of misunderstanding causing debates between adherents of "Lehmann-like" vs. "Traugott-like" treatments of scope in grammaticalization research.

are not propositional modifiers as such, but take scope over propositions when they have finite clauses as complements (see ex. 5–6). Auxiliaries, by contrast, form part of clausal nuclei: semantically, they modify a lexical verb and via that verb partake in the constituent structure of a clause; syntactically, they are often treated as heads to lexical verbs. In turn, complementizers serve as signs that introduce clausal complements; some of them can manipulate on the meaning of these complements, but the complement is always "governed" by some higher-order predicate (the complement-taking predicate, CTP). Compare Pol. *jakoby* 'as if, as though', which marks reportive evidentiality (Wiemer and Socka, this volume):

(11) *Zbrodzień Nazarian wszystko na owego Schirrę strąca, zaprzecza i wypiera się, **jakoby** on sam mordował, ale to pewnie ze strachu przed stryczkiem.*
'Nazarian, the abuser, throws everything down on this Schirra, denies it and denies **that** he himself had committed the murder, but probably because of fear of the noose.'   [PNC; A. Sapkowski: Chrzest ognia. 1996]

From this perspective, complementizers are analogous to case endings used as flags on nouns to mark the syntactic relation with their predicate. Moreover, complementizers happen to be sensitive to meaning alternations of their CTP; in this respect, they remind us of differential argument marking (Wiemer 2021: 46). In this respect, complementizers are like an antipode to predicatives: the latter have an argument structure of their own, while complementizers serve as flags of clausal arguments.

A yet different case is adpositions like *ACCORDING TO*-units, which specify the source of a speech act, or opinion; compare, for instance, Russ. *soglasno*, Pol. *według*, *zdaniem*, Germ. *gemäß*, *laut*, *zufolge*, Fr. *selon*, Lith. *pasak*. Syntactically, prepositions and postpositions scope over NPs and thus function as PP heads. Only as entire PPs do they scope semantically over propositions and are in this respect comparable to sentence adverbs and modal particles. As heads of PPs, adpositions also show an analogy to auxiliaries: the latter can be conceived of as syntactic heads of VPs (see above), but when they gain semantic scope over propositions the syntactic relation to their dependents does not change. The latter holds true also for affixal markers (or TAM constructions): they "stay at their place" even if evidential extensions occur (e.g., with perfects or conditionals). These comparisons demonstrate again how important the distinction between semantic (functional) and syntactic (structural) scope is.

In sum, different morphosyntactic formats of evidential markers provide heterogeneous inventories for particular languages. Markers that do not correspond to Anderson's criterion [b] must be checked as for whether they scope over propositions. As for complementizers, this issue does not raise particular

problems, because – as far as we know – if evidential complementizers occur in contemporary European languages, their CTPs require propositional arguments, and this strongly correlates with morphological finiteness of clausal arguments introduced by such complementizers (cf. Kehayov and Boye 2016). Presumably, the only systematic exception is HOW-complement clauses as arguments of perception verbs. It has been argued that these clauses do not code propositions, but states of affairs (Boye 2010, 2012). Another case in point is, again, predicatives. At least in Slavic, predicatives with clausal complements form a minority (probably both on type and token level), and those predicatives which do allow for (finite) clausal complements and code evidential values (SEE, HEAR, FEEL, SMELL, BE KNOWN) can also have non-clausal complements (cf. Wiemer and Socka, this volume; Wiemer and Letuchiy, this volume).

Table 1 provides a summary of the types of syntactic and/or semantic relationship between these expression classes and their "hosts".

Parentheticals are not included into the lexicon – grammar cline, because they are themselves an open class of units (with very different formats and internal properties), and most of them are created just "on the fly" for a specific occasion. For instance, every verb able to take a clausal argument can in principle be used parenthetically (or: be made the nucleus of a complex parenthetical expression).[10] Consequently, parentheticals cannot normally be considered conventionalized units to be entered into some lexical inventory. This is how parentheticals differ fundamentally from particles (see Section 1.1).

For a similar reason, raising (a.k.a. matrix coding, or Nominative-cum-Infinitive constructions[11]) – for those verbs showing relevant behavior in the particular language – is not in general considered in an inventory of evidential markers. However, certain parentheticals or constructions associated with raising may be included nonetheless, provided their text frequency considerably exceeds the average (for the given expression class) so that they may be considered prefabs (in Bybee's 2010 terms), i.e. expressions that are most probably not composed each time anew in discourse, but reproduced as holistic chunks.[12]

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10 There are rare exceptions, e.g. Russ. *naxodit'* 'find; consider' (Apresjan 2004: 1134).

11 Cf. Noël and Colleman (2011).

12 Accounting for such extremely frequent, though compositional complexes has become practice in Construction Grammar after Goldberg (2006: 5): "patterns are stored as constructions if they are fully predictable as long as they occur with sufficient frequency."

Table 1: Expression classes of evidential markers: relation between structural and semantic properties.

	Particles sentence adverbs	Predicatives	Complementizers	Adpositions	Auxiliaries	Affixes (TAM paradigms)
head-dependent relation	irrelevant	heads of NPs or clauses	head of clauses, but dependent on predicates (= lexical heads) in "higher" clauses	heads of PPs	heads of lexical verbs	modifiers of lexical heads
kind of dependency	semantic or none	syntactic (sentence level)		syntactic (phrase level)		morphosyntactic (word level)
role in constituency	particles: none sentence adverbs: self-standing constituent	nuclei of clauses (⊃ own argument structure)	none: flags of clausal arguments	self-standing constituents together with their dependents		none
relation to proposition/ semantic – syntactic scope	only semantic scope relevant; propositional modifier on sentence level	syntactic scope over sentence coincides with semantic scope over proposition	syntactic scope over clause coincides with semantic scope over proposition	asymmetry of wide semantic (= propositional) and narrow (morpho)syntactic scope: propositional scope only via entire constituents in syntactic scope (PP or VP, incl. argument structure) in relation to clause or sentence		

By a similar token, raising constructions sometimes start living their own life. They can turn into auxiliaries (Noël 2001; Boye 2012: 113f.) and establish patterns for a larger amount of verbs, which thereby enter into paradigmatic relations since they occupy preconceived slots. This has been suggested for a couple of verb meanings related to information source, such as SEEM, followed by THREATEN and PROMISE,[13] but also for SAY-verb constructions, e.g. in Danish (Ørsnes 2011, 2013); cf. Wiemer (this volume: Section 15.2.3).

1.2.2 Evidential extensions of established verbal paradigms

Although in this volume extensions of established TAM paradigms will only be treated as a background, some comments should be made. Extensions of tense-aspect paradigms into evidentiality do occur in European languages, the most salient cases being languages of the Balkans, first of all the Balkan Slavic perfect based on *l*-participles, and languages in the eastern part of the Circum Baltic Area, namely the Baltic languages and Estonian, for which different kinds of participle constructions are attested.[14] Debates concerning evidential extensions of TAM paradigms have arisen also with respect to conditional mood and tense-aspect forms of the past domain in French, Spanish and other Romance languages; cf. the relevant chapters in this volume and Marín-Arrese (2018), also for more references. The employment of the German *Konjunktiv I* in the context of reported speech and its relation to reportive evidentiality have been another widely discussed topic.[15]

In general, the question is to what extent these paradigmatic forms in the specific languages have really acquired an evidential meaning that can be regarded as coded, and how much these meanings depend on more specific contextual conditions (including properties typical for various genres and discourse types). However, regardless of how advanced the conventionalization of evidential functions may be in each particular case, this process has nothing to do with morphologization, nor with transitions from autonomous to function words. We are here dealing with the functional reinterpretation of forms (resp.

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13 For French cf. Dendale (this volume: Section 5.2.4.1), for German Diewald and Smirnova (2010), for English Breeze (2017).
14 For surveys cf. Wälchli (2000), Kehayov (2008) on Baltic and Finnic, Friedman (2003) on the Balkans.
15 Cf. Diewald and Smirnova (2010) and Mortelmans and Stathi (this volume).

entire paradigms) and their combinatorial restrictions with other grammatical categories and the morphosyntax of the given language.[16]

A yet slightly different case is future grams (including the future perfect, a.k.a. *futurum exactum*), which have been extensively discussed as possible evidential (in particular, inferential) strategies for a larger variety of languages (cf. Dendale 2001; Squartini 2008; Giannakidou and Mari 2013; Escandell 2014; Rivero and Simeonova 2015; Ayoun et al. 2018, among others). The "link" to evidentiality differs inasmuch as the discussion seems to hinge mainly on the epistemic load which has been ascribed to futures as an inherent property regardless of their origin and of how well established they are in temporal-deictic use. The epistemic functions which future grams fulfill in practically all European languages is associated with inferential functions, and the latter has been regarded as a salient area of intersection between epistemic support and evidential justification of judgments (van der Auwera and Plungian 1998; Sthioul 1998; Palmer 2001 [1986]; Jaszczolt and Saussure 2013; Marín-Arrese 2018, among others). The semantic and conceptual problems connected to this are discussed in Section 1.3.2. Here we only want to point out that the acquisition of evidential meanings (as evidential strategies) by future grams is based on this inherent relation between epistemic support for inferences and supplying evidential background for such inferences, and this is probably the reason why the 'future-evidentiality link' arises so consistently for languages all over the place. By contrast, the ways in which evidential extensions are acquired by TAM markers of other domains than the future appear to be more specific, and this is probably why, despite some general tendencies (or clusters) for conditionals and perfects, they create much more crosslinguistic variation (Wiemer, this volume). In this volume, the interaction of such grammatical means with lexical markers ('function words') has not been addressed systematically.

Similar recurrent problems with determining the relation between epistemic support and evidential justification have arisen for MUST-auxiliaries, and these are accounted for in the contributions, since we included (semi-)auxiliaries with evidential functions into our crosslinguistic inventory (see Section 1.5). On the lexicon – grammar cline auxiliaries are located in the middle, because they are "halfway" between autonomous word forms and morphosyntactically depend-

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16 Such restrictions become evident, for instance, when the inventory of evidentially interpretable forms (or subparadigms) is mapped against tense distinctions (e.g., in Balkan Slavic), or when evidential interpretations are triggered by clause types which lack agreement with a subject and/or require the relevant argument to be coded in the genitive (as in the Baltics). See fn. 14.

ent units (see Section 1.2.1). More specifically, modal auxiliaries add information along the baseline of modal distinctions set by contrasts of necessity (NEC) and possibility (POSS) cross-classified with conversational backgrounds: deontic, circumstantial, epistemic (van der Auwera and Plungian 1998; Hansen and De Haan 2009; Boye 2012).

1.2.3 Correlations between constructions and functions

Quite a number of researchers have shown that it is not just (simple or complex) morphological units, but rather constructional (i.e., phrasal or clausal) frames in which they participate, that acquire evidential functions or differ in the range of such functions. The probably best known case are SEEM-verbs in Germanic and Romance languages; cf. Dendale and Van Bogaert (2007) on Fr. *paraître/ sembler*; Cornillie (2007a, b) and Marín-Arrese (2017) on Sp. *parecer*; De Haan (2007) on some Germanic languages and Diewald (2001) particularly on Germ. *scheinen*, as well as some less systematic observations on Pol. *zdawać się*, *wydawać się* by Wiemer (2006: 53–59). In the current volume this issue has been elaborated on, particularly by Marín-Arrese and Carretero for Sp. *parecer* and by Marín-Arrese, Carretero and Usonienė for Engl. *seem*. In Romance languages like Spanish the verb *parecer* in its petrified PRS.IND.3SG-form (*parece*) significantly favors an inferential meaning, though some instances are found with a reportive value. English, in turn, is among the languages which employ more than one SEEM-verb for evidential purposes on different construction types. SEEM-verbs, *it seems* and *it appears*, show the development of a potential division of labor related to the different constructions in which they appear: SEEM+INF in the petrified PRS.IND.3SG-form, or in parenthetical use, tends to be employed with an inferential value, and the same tendency is found for *appear(s)*+INF. In their use as a verb form with a THAT-complementizer introducing a finite complement clause, *it seems* still clearly favors inferential uses, whereas *it appears* shows a preference for reportive values (Marín-Arrese 2017: 216). A survey of function ranges dependent on constructions with SEEM and other verbs is given in the concluding chapter (Wiemer, this volume).

In some cases, a verb form (usually PRS.IND.3SG) coalesces with some other element, e.g. a complementizer, which previously frequently occurred in a position that made it behave like an enclitic to that verb form. A prominent case is SAY/SAYC-units in diverse varieties of Romance languages (cf. Olbertz 2007; Cruschina and Remberger 2008, and the relevant contributions in this volume), such as *dizque* in Spanish (see Section 1.1, and Marín-Arrese and Carretero, this

volume), as well as in Basque (Carretero and Cid Abasolo, this volume). Both the function range and the number of construction types in which such units occur appear to be much narrower than for SEEM-based units; SAY/SAYC-units are mainly attested as reportive markers (with or without epistemic overtones), and this may also be due to their narrower etymological source meaning. A similar point can be made for Gr. *lei*, which has resulted just from the petrification of the aforementioned grammatical form of the basic speech act verb (Stathi, this volume).

This Greek case brings us to process by which some inflected form fossilizes without any other surface change and thereby isolates from its paradigm; compare Lith. *girdì* (Wiemer 2007: 179f.). In yet other cases forms are truncated, and not always is this process accompanied or followed by further steps on the morphologization cline. For instance, Russ. *mol* (< †*molvi-l* 'say-PST-(SG.M)') may sometimes behave like an enclitic, but it does not agglutinate to any particular class of word form (Wiemer and Letuchiy, this volume: Section 10.6.2). The same applies, in principle, to reportive Cz. *prý/prej* (< *praví* 'say'[IPFV].PRS.3SG); cf. Hoffmannová (2008).

Finally, there are various "mixtures" of fossilization, fusion and truncation, sometimes accompanied by semantic shifts; compare Russ. *de/skat'* (< *de* + *skazat'* 'say'[PFV].INF), Pol. *pono/ć* 'allegedly' (< *podobno* 'allegedly' < 'similarly' or *pomno* 'as is remembered' + *ci* adding emphasis).

Remarkably, the spectrum of functions disclosed for SEEM-based forms and the correlations with different constructional frames is largely mirrored by a comparable array of functions attested in the diachronic development of the HOW-based 'as if'-unit *jakoby* in Polish. It started as a similative marker with an indication of the irreal status of the basis of comparison (fused as *jako/by* < *jako* 'how, as' + *by* = irrealis marker, used also in the subjunctive), but then gradually, via epistemic modification, shifted into inferentiality until it "arrived" in the reportive domain, in which it is now used almost exclusively as a particle. Rare occasions of inferential use still occur, but apparently only in complementizer use, thus in a tighter syntactic frame (Wiemer 2015). These observations "harmonize" well with those mentioned above on SEEM-based units and their constructional frames.

Functional changes of (simple or complex) morphological units often lead to synchronic overlaps of functions between forms with a common origin, but with no (or minimal) differences in phonological shape. In grammaticalization studies this phenomenon has been called 'layering' (Hopper and Traugott 2003: 124–126). In particular cases it applies when fossilization is not accompanied, or followed, by truncation or fusion with other units, or when after such fusion the new unit further develops other functions (see examples above). From the syn-

chronic point of view, the relation between such functions often remains more or less transparent, but even if not, synchronic variation reflects diachronic steps, and it usually creates polysemy. Since, however, the functions of this (originally one) unit tend to be distributed over different syntactic contexts, we prefer to use the term 'heterosemy' coined by Lichtenberk (1991: 476) to mean phenomena "where two or more meanings or functions that are historically related, in the sense of deriving from the same ultimate source, are borne by reflexes of the common source element that belong in different morphosyntactic categories".[17] Heterosemy is accounted for in the contributions to this volume.

1.2.4 On the distinction between particles and sentence adverbs

Both so-called modal particles and sentence adverbs have propositional scope,[18] in this respect they behave alike. In this volume, the term 'particle' is employed only with regard to units which have propositional scope, other (often vague) usages of this expression are beyond our concern. Now, if one browses through linguistic descriptions of what is called 'particles' and 'sentence adverbs', one notices that authors discussing respectively the former or the latter practically tend toward complementary distribution, i.e. particles and sentence adverbs are usually not confronted with each other in the same description.[19] In particular, this concerns units with inferential functions as well as epistemic modifiers, e.g. Engl. *probably*, *certainly*, *perhaps* and their translational equivalents, and units with reportive functions. For instance, units like Engl. *allegedly*, *reportedly*, *obviously*, Germ. *vielleicht* 'maybe', It. *forse* 'maybe', *sicuramente* 'certainly', Pol. *podobno* 'reportedly', *prawdopodobnie* 'probably', are treated as sentence adverbs in Bellert (1977), Ramat and Ricca (1998), Austin et al. (2004), Eisenberg (2006: 218), Wierzbicka (2006), Condoravdi et al. (2019, 'epistemic adverbs'), Squartini (2007: 1), while they are analyzed as particles in Grochowski (2007), Grochowski et al. (2014). Hoye (1997: 212) proposes to redefine 'modal adverbs' (e.g., *certainly*, *apparently*, *obviously*) as 'modal particles'. In turn, Aijmer (2013)

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17 Good examples of heterosemy are supplied by modal particles, and among features employed for an intensional definition of modal particles some researchers have suggested 'homophony in other categories' (Schoonjans 2013: 135). Although probably pointing to the same kind of phenomena as does heterosemy, this coinage obliterates the etymological bond between the different 'categories' (defined by syntactic distribution).

18 The issue of which units can also function as modifiers of illocutions (and under which circumstances) is not of concern here and will thus be neglected.

19 Cf. however Nekula (1996: 13–24).

suggests that *of course* may function in either way. For her, the status as modal particle seems to correlate with looser syntax, i.e. it is more detached from the structure of the sentence it scopes over, but she does not specify how this might be tested once semantic scope (over propositions) does not change. In yet other works either term – '(sentence) adverb' and '(modal) particle' – is avoided and new ones are created like, for instance, 'adsentential operator' (Grochowski 2008) or 'adverbial metapredicate' (Danielewiczowa 2012), both doing justice to the fact that relevant units scope over propositions usually couched in self-standing clauses.

By the same token, when it comes to formulating properties of these word classes these properties often look identical, or their sets overlap.[20] Naturally, this raises the question whether we are dealing with the same kind of linguistic units (and their names are more or less arbitrary). Or does their differentiation make sense from an empirical point of view, but also for the purposes of a comparative account, at least as far as evidential functions are involved? Since this issue proves particularly complex, and we have not been able to solve it in a way that would be satisfying for all languages considered in this volume, we decided to postpone it. Correspondingly, i.e. inasmuch as uninflected function words with propositional scope and flexible positions in sentences (utterances) are concerned, we have not been too strict in whether they are dubbed 'particles' or 'sentence adverbs'.

1.3 Functional distinctions – how to divide them?

In the relevant literature, evidential functions (or values) have mostly been presented in a taxonomic fashion; consider, first of all, Aikhenvald (2004). Alternatively, an organization of functions in form of a network has been proposed, for instance, by Anderson (1986) and Squartini (2001, 2008). In practice, however, elements of both kinds of architecture prove to interlace (for a discussion cf. Wiemer 2018a: 128–132), and this volume is no exception. In general, the reason for a "mixed" approach toward classifying functions appears to be that some of the notions used in classifications are not primitive ones (see Section 1.3.2), but result from the intersection of different dimensions (or parameters). First of all, this holds true for the notion of 'inference' and, consequently, for

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20 For surveys concerning German and/or Slavic languages cf. Wiemer and Vrdoljak (2011a, b) Wiemer and Socka (2017: 34f.), Wiemer (2018a: 171–175), Socka (forthcoming: §2–2.1). From a broader crosslinguistic perspective cf. Wiemer (2010: 90f.).

units considered to mark inferential values. This shall become clearer in the following. The function grid which we applied in this volume is basically a taxonomic one, as this appears to be more convenient for comparative purposes. However, amendments have been introduced, which we will explain in Section 1.3.1, whereas Section 1.3.2 will discuss the problematic status of conjectural inferences, and Section 1.3.3 takes issue with other expression classes whose core functions are related to, but nonetheless beyond evidentiality (as delimited in Section 1).

1.3.1 A grid of functional values

Willett (1988: 57) distinguishes between the following types of evidence: (a) direct, or 'attested' through visual, auditory, or other sensory means; and (b) indirect, which comprises two subcategories, that of 'inference' from results or reasoning, and 'reported', or 'hearsay', which includes second-hand, third-hand or folklore. This classification establishes a basic functional division of labor between the encoding of evidence as first-hand vs. second-hand, and posits three values for evidential expressions: Attested, Inference and Reported. Similarly, Plungian (2001, 2010: 29) proposes a typology of evidential systems which posits an intersection of two basic types of oppositions: (a) 'direct (firsthand, witnessed)' versus 'indirect access to information'; and (b) 'personal' versus 'non-personal access to information'. This allows for different crosslinguistic clustering of evidential values (Plungian 2001: 354):

A. Direct evidence (including direct access to P[21]): Visual, Sensoric, Endophoric.
B. Reflected evidence (including direct access to some situation Q related to P): Synchronous inference,[22] Retrospective inference, Reasoning.
C. Mediated evidence (including neither direct nor reflected access to P): Quotative.

The point must be made that Plungian's use of the term Quotative does not distinguish between reportive evidence for which the original speaker(s) is/are known (or recoverable) and reportive evidence with unknown (or unimportant) original speaker(s). Aikhenvald (2004) uses 'Hearsay' for the latter and 'Quotative' for the former. We ourselves use 'hearsay' as a cover term for any

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21 Here, P means the described situation (not the proposition).
22 The validity of this value was questioned by Aikhenvald (2004: 193, fn. 5). For discussion cf. Wiemer (2018a: 132–136).

sort of reportive evidence which is not reported speech and not quotation. The point is that, currently, the term 'quotative' has been separated from reportive evidence and evidentiality as such. In general practice, quotatives (and quotations) have to do with the (re-)enactment of speech activity, or of its semiotic substitutes (mimics, gestures, etc.); thus, their targets are not the propositional content of (somebody else's) speech acts, but a reproduction of speech behavior and illocutions, or of whatever interlocutors regard as their semiotic equivalents. Quotatives serve "to introduce speech, thought, activities or attitudes" (Buchstaller and Alphen 2012: xii), and quotations are demonstrations in the sense of Clark and Gerrig (1990), not renderings of the content of speech, which are the domain of reportive evidentials. This is, why quotatives (and quotations) are outside of evidentiality as delimited in Section 1; see further in Section 1.3.3. Moreover, Diewald and Smirnova (2010) and Chojnicka (2012) have argued that there are substantial arguments for distinguishing reportive evidentials from reported speech representation, an issue which is beyond the scope of this volume.

In some of the classifications on evidential values a distinction is made based on the dimension 'Personal' vs. 'Non-Personal'; cf., for instance, Plungian (2001) and Squartini (2008). Frawley (1992: 413) argues for the distinction between an internal Source of Knowledge (Self) for the values 'Inference' and 'Sensation' (visual, auditory, other senses), from an external Source of Knowledge (Other) and the categories of 'External Information' (reportive evidentiality). Squartini (2008) has argued for the need to distinguish between 'Source of evidence', or locus of information, internal (SELF) or external (OTHER) to the speaker/writer, and 'Modes of knowing', as "the process leading to the acquisition of the information (directly visual, indirectly through inferences, reports)" (Squartini 2008: 917). To this should be added the 'Type of evidence', that is, the different nature of the evidence, whether visual, non-visual sensory, knowledge, or communication. The question remains, of course, that modes and types are inextricably intertwined in some cases: direct to sensory evidence, and indirect to knowledge and to communication. In particular, the category Inference, and more specifically perception-based inference, may be considered hybrid in that the internal mode of knowing is inextricably bound with an external source of evidence. As Squartini (2008: 931) acknowledges, "circumstantial inferences are marked both by the feature [+OTHER], representing the external sensory evidence, and by the feature [+SELF], representing the role of the speaker's own reasoning".

Diewald and Smirnova (2010: 54–55) conceive evidential categories in deictic terms and distinguish the following sources of information:

(i) *Direct* evidentials signal that the speaker/writer (Origo, deictic position of the speaker) has direct perceptual access (Q, secondary event) to the event described (P, primary event), that is, "all relevant points of the relation are treated as co-present in the same deictic field: the secondary event, functioning as evidence for the primary event, as well as the primary event are co-present with the origo, i.e., the marker includes an origo-inclusive value".

(ii) *Indirect* evidentials indicate that the primary event is not accessible in the current speech situation, that is, "the primary event is not co-present with the origo (and the secondary event): the marker expresses an origo-exclusive value". The different indirect evidential categories and values are defined as follows:

    (a) *Indirect inferential*: within this category Diewald and Smirnova (2010: 63) define the following values:

       – "Perceptual inferential value: P, because Q [Origo can observe some signs/traces of P]"

       – "Conceptual inferential value: P, because Q [Origo knows Q, and Origo knows that Q entails P]"

    (b) *Indirect reportive*: "the speaker has indirect access based on someone else's perceptual and cognitive capacities, i.e. what he has heard from someone else" (Diewald and Smirnova 2010: 64). The specific communicative source may be further sub-classified as 'hearsay' (involving some unspecified third-hand source), 'folklore' (information shared within the community of speakers), etc.; cf. Willett (1988) and see above.

An additional issue involves the derived consequence of these classifications of evidentiality and the fact that the concept of evidentiality itself is usually viewed as a compact, coherent 'functional-conceptual substance domain,' with a number of subdomains, typically direct, indirect-inferential, and reportive evidentiality. However, as Nuyts (2017: 58) has pointed out, "the notion of evidentiality is not a coherent semantic category", since "it covers dimensions of a quite different nature, which need to be kept apart and deserve a distinct status in a cognitively and functionally plausible semantic analysis". Direct evidentials signal the mode of knowing (direct) and type of evidence (sensory) and "differentiate between the different sense organs responsible for the experience (visual, acoustic, etc.)" (Nuyts 2017: 69). Reportive evidential resources indicate that the speaker has acquired the information indirectly through communication with others: "Hearsay is 'monolithic,' one-valued" (Nuyts 2017: 69). In contrast, the category 'inferential' involves degrees in the "reliability of the process of inferencing in view of the strength or quality of the evidence availa-

ble" (Nuyts 2017: 69) and serves to provide 'epistemic justification' for a proposition, as a subdomain of the conceptual domain of epistemicity (cf. Boye 2012).

Perhaps a more meaningful dimension is that of 'Mediation', that is, whether the evidential is marking: (i) direct sensory (e.g., visual, auditory, olfactory), non-mediated, access to the information, (ii) indirect, cognition-mediated mode of access, and (iii) indirect access, mediated by some other speaker(s)/conceptualizer(s). All three cases involve the personal dimension, which is congruent with the notion that evidentiality is "deictic, and thus inherently personal" (Diewald and Smirnova 2010: 60). In sensory perception there is a direct, unmediated access of the speaker/conceptualizer to some external entity or stimulus. It involves "the speaker's own direct assessment, unmediated by the view of another conceptualizer" (Langacker 2017: 43). In the case of indirect access through inference, the assessment is no longer direct, but mediated by the speaker/conceptualizer's processes of "higher-level cognition: thought, reasoning, generalization, inference, conceptual integration, and so on" (Langacker 2017: 21). Finally, in the case of report, the proposition is ascribed by the speaker/conceptualizer to some conceptualizer; there is mediation by "other conceptualizers, whether individually or in generalized fashion (e.g., as cultural knowledge)" (Langacker 2017: 21).

In this volume we will focus on inferential and reportive evidential expressions. The basic categories and values to which we adhere are illustrated in the following classification and examples from Marín-Arrese (2015: 212f.) and Marín-Arrese (2017: 198f.):[23]

(i) Direct Perceptual (DPE): evidential expressions indicating speaker/conceptualizer's direct, non-mediated access to visual or other sensory evidence.

(12)   *When, on a hot day in London, **I see** <DPE> a woman wrapped in a black sack tagging along beside a guy in light T-shirt, jeans and sneakers, my first reaction is: "How bloody unfair!"* (CESJD-EOG)

(ii) Indirect Inferential (IIE): evidential expressions indicating speaker/conceptualizer's indirect access to information, through: (a) perception-based inferences triggered on the basis of personal access to sensory evidence; (b) conception-based inferences founded on personal knowledge involving conceptions or beliefs, or else (c) communication-based inferences, that is,

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23 See also Marín-Arrese, Carretero and Usonienė (this volume) for English, and Marín-Arrese and Carretero (this volume) for Spanish. For an analogous classification cf. Izquierdo Alegría (2017).

inferences based on knowledge acquired through social communication sources (reports, documents, other speakers, etc.).

(13)   IIE (Perception-based): *Members of the Taleban and al-Qaeda were filmed kneeling in the dirt, their eyes shielded by goggles and thick black tape, their ears covered with muffs and their mouths with surgical masks. Chained to each other and restrained by leg irons and handcuffs, the pris-oners look like helpless victims. The photographer **appears** <IIE> to have caught their captors in the course of a gross violation of human rights.*
[CESJD-ELT]

(14)   IIE (Conception-based): *A burst of publicity can have as heady an effect on politicians as a bottle of champagne. It can also leave them feeling rotten the next day. William Hague went repeatedly for the high and let himself in for the subsequent hangovers, but I had thought Ian Duncan Smith was better able to resist. It **seems** <IIE> I was wrong. The Conservative leader's hijack of the case of Rose Addis has won him a few days' headlines. His colleagues are pleased that he has made an impact. But at what cost?*
[CESJD-EOT]

(15)   IIE (Communication-based): *One year on, the prime minister still **seems** <IIE> uncertain about how to characterise the war. <u>He started by acknowl-edging that</u> it wasn't a humanitarian intervention to liberate the people of Iraq from tyranny, but <u>concluded that</u> "we surely have a responsibility to act when a nation's people are subjected to a regime such as Saddam's". This is hardly a passing detail; it goes to the heart of Blair's proposals for reform of the UN and his new "doctrine of international community".*
[CESJD-EOG]

(iii) Indirect Reportive (IRE): evidential expressions indicating indirect, mediat-ed access to the information through social communication with some ex-ternal source(s).

(16)   <u>*According to the sources*</u>, *about 18 months ago, a 27-year-old Saudi made his way down the dusty track to the main road. His trip, **it appears** <IRE>, started at al-Farooq, where he had been training for several months. It was to end on American Airlines Flight 11 as it flew into the north tower of the World Trade Center.*
[CESJD-ENG]

1.3.2 Conjectures – inferences based on no particular stimuli

An additional, important caveat has to be made concerning some of the parameters employed in general accounts of taxonomies and networks of evidential values. A point made mainly by representatives of formal semantics is that inferences are no primitive notion. In fact, an inference – or any mental process – is not a type of evidence, as it is never a source of information itself; instead, this source (or basis of judgment) is the stimulus which triggers an inference (cf. Speas 2018, among others). Brugman and Macaulay (2015: 206) even reduce 'sources of evidence' to a classification of sensory bases from which inferences are drawn (and which show up in different taxonomies of evidential values referred to above). In practice, if we add 'propositional content' of speech to the division of stimuli serving as triggers for judgments, this division proves equivalent to the Types of evidence mentioned in Section 1.3.1, and it maps onto divisions within Squartini's (2008) Modes of Knowing and on Marín-Arrese's (2015, 2017) tripartition of indirect inferentials (perception-based, conception-based, communication-based) also mentioned there. It is in this respect where (some) function-driven classifications and decompositional approaches in formal semantics converge and can profit from each other (Wiemer 2018b: 96f.).

Apart from the functional divisions (and their parameters) discussed in Section 1.3.1, we have to take a stance on a critical issue concerning inferentials. Many have followed Squartini's (2008) distinction between circumstantial, generic and conjectural inferentials. The first two are based on perceptual stimuli and conceptual knowledge, respectively. Perceptual stimuli are, of course, always connected to specific occasions in the experience of speakers, while conceptual knowledge is more stable and can be further divided into general encyclopedic knowledge (e.g., about cultural habits or physical laws) and more specific, individualized knowledge (e.g., about the daily routines of one's relatives), with all sorts of gradations. Apart from perceptual triggers and internalized knowledge bases, inferences can also be made if "any evidence, both external and based on general world knowledge, is lacking" (Squartini 2008: 924). This sort of inference is dubbed 'conjecture'; correspondingly, the units based on such a basis of judgment defined as though *ex negativo* have been called 'conjecturals'.[24]

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24 In Aikhenvald's (2004) taxonomy, Assumed comes closest to Squartini's generic inferentials, while Inferred corresponds to circumstantial inferentials. However, there is no equivalent of conjecturals.

As distinct evidential values, conjectures are problematic for two reasons – one of them has to do more with the consistency of our account of the facts, the other is more related to the empirical behavior of relevant markers. As for the first reason, Squartini's definition makes clear that conjecturals do not narrow down the basis of judgment, they can include anything from gut feeling to hypothetical surmises, but exclude more specific backgrounds connected to perception and conceptual knowledge. This runs counter to Aikhenvald's (2004) wording: evidentiality marking "includes stating that there is some evidence, and also **specifying what type of evidence there is**" (see [1] in Section 1.1, emphasis added). Once we accept this definition (as we do), there is no place for means that do not specify the basis (= type of evidence) of the inferencing process, or which even exclude a perceptual or conceptual basis. If we left such an option, many other markers which simply indicate (or entail) some sort of epistemic judgment (first of all, everything meaning something like 'I'm sure that P') would have to be included as well. This would blur the distinction between evidential meaning (= epistemic justification) and modal meaning (= epistemic support) and also bring us into empirical problems (see below).

In this connection, we should be reminded of Plungian's (2001: 354) dictum that "an evidential supplement can always be seen in an epistemic marker" (i.e. every statement somehow calls out for a justification), whereas "the opposite does not always hold: not all evidential markers are modal in that they do not all necessarily imply an epistemic judgment" (i.e. the speaker can remain just agnostic as to whether they commit themselves to the judgment or not). If conjectures do not point to any specific knowledge background (and exclude perceptual triggers and conceptual backgrounds), they do not add any source-related (= evidential) information beyond what is already implied, anyway, namely: that there must be some justificatory background, some reason for the speaker uttering some propositional content.

The second problem with conjectures arises from empirical observations concerning the flexibility with which an evidential (in particular, inferential) function can be highlighted and an epistemic function be downgraded, or vice versa. In many cases, either function can be fore- or backgrounded, and this leads to context-dependent tip effects, in favor either of the evidential or the epistemic function. Many units that scope over propositions show a syncretism of epistemic and evidential potential in their meaning, and often it is difficult or impossible to determine whether an evidential or an epistemic component is only inferred (e.g., by way of Generalized Conversational Implicature) or coded. However, there seems to be a correlation between the lack of a specific experiential basis of the speaker's judgment and the rise of epistemic overtones, or the

predominance of epistemic support over epistemic justification (= reference to information source). That is, the less the judgment is based on some specific facts, or on circumstances observable in the given situation, the more probable it is that the respective marker will be interpreted as a signal of the speaker's epistemic support rather than an indication of what justifies the speaker's judgment.

This phenomenon becomes particularly prominent with sentence adverbs and other lexical modifiers of propositions, but good cases to illustrate this phenomenon are also available from core grammar, such as future (and future perfect) grams (cf. Dendale 2001, among others) and MUST-auxiliaries. To illustrate the case for lexical markers, let us look at the following Bulgarian examples (cf. Wiemer and Kampf 2015 [2012]: 175–186, also for more details). In (17) the speaker modifies the judgment ('he had become tired') by a similative unit (*kato če li* 'as though') which is often employed as a perception-based marker of justification; the justification itself is spelt out in the subsequent sentence (*dumite stavaxa vse po-provlačeni...* 'the words became more and more drawn out...'):

(17) *Nakraja*   **kato če li**   *se*   *be-še*   *umori-l*
eventually   as though   RM   be-IMPF.3SG   make_tired-LPT-(SG.M)
– *dumite stavaxa vse po-provlačeni, redovete se smăkvaxa nadolu.*
'Eventually he **seemed** to have become tired [lit. *he as though had become tired*] – his words became more and more drawn-out, the lines slipped down.'

In this case, weakening of epistemic support is hardly an issue, because the evidential function is foregrounded. This relation between justification (= evidential value) and epistemic support changes if no justificatory basis is supplied in the context (explicitly or implicitly), as this is the case in the following example:

(18) *Kriza-ta*   **kato če li**   *si*   *otiva*   *ot Evropa*.
crisis-DEF.F.SG   as though   RM.DAT   go_away[IPFV].PRS.3SG   from Europe
'It seems [lit. **as though**] the crisis is leaving Europe.'

This is a newspaper headline, and source of information is retained in the background; as a consequence, epistemic support is foregrounded and the speaker's commitment to the proposition ('the crisis is leaving Europe') can easily be put under question. What is uttered is just the author's opinion.

Now, while markers that are in general associated with perceptual backgrounds of judgment (like *kato če li*) can usually show such tip effects of varying evidential or epistemic foregrounding, other markers seem to be less flexible in this respect. In particular this concerns markers showing only a weak or no

association with perceptual or even conceptual triggers of judgment, which in Squartini's terms would qualify as conjecturals: Bulg. *navjarno* 'probably' is a good case in point. In (19) the speaker makes an assumption and marks it with *navjarno*; the evidence can be reconstructed only by a reader who knows the course of events and the protagonist of the given literary text. (20), in turn, is part of the fictional description of the protagonist, a famous Russian mathematician. The author presumes that Lobačevski is fighting against distracting thoughts, trying to concentrate on a complicated topic. Nothing indicates what justifies this assumption, the author merely surmises what the protagonist might be troubled with:[25]

(19) *Tolkova mnogo* *cvet-ja* *t-ja* **navjarno** *ne* *be-še*
so_many flower-PL 3-NOM.SG.F probably NEG be-IMPF.3SG
vižda-l-a *prez* *celi-ja* *si* *život*.
see[IPFV]-LPT-SG.F through entire-DEF.SG.M RM.DAT life[M]-(SG)
'She had **probably** not seen so many flowers during her whole life.'

(20) **Navjarno** *taka* *e* *prav-e-l* *i* *Lobačevski*,
probably so be.PRS.3SG do[IPFV]-NCF-LPT-(SG.M) PTC PN[M]-(SG)
dokato *e* *izvežda-l* *svo-i-te*
while be.PRS.3SG deduce[IPFV]-LPT-(SG.M) POSS_REFL-PL-DEF.PL
formul-i.
formula-PL
'**Perhaps** Lobačevski did so, too, when deducing his formulae.'

In both cases, since specific evidential background is lacking, the epistemic function is foregrounded, the degree of commitment to the respective proposition may vary, but it is the only function at stake for such surmises (based on whatever).

This kind of analysis could be extended. Anyway, the lesson is that, if the context does not hint at triggers for the justification of judgments, an evidential function remains in the background. Apart from this discourse-pragmatic mechanism, we can look at the meaning potential of expressions that operate on propositional content, and if such expressions do not provide hints at the basis of judgment either, they leave just the impression of somebody's personal stance, an opinion. This is the case with markers that are considered conjec-

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25 These considerations apply even if we account for the fact that, in this example, the perfect forms (with *l*-participle) mark indirect evidentiality. They themselves can carry epistemic overtones.

turals: no source-related meaning component has been conventionalized, and only the context could supply hints about evidential justification. For this reason we do not assign conjectures an evidential value in its own right.

Notably, regardless of these reservations against conjectures as an evidential value, Squartini's proposal of distinguishing circumstantial, generic and conjectural inferentials is valuable, on condition that we look at the interference of evidential and epistemic values. Under this condition, Squartini's tripartition of inferentials is very helpful in disclosing the functional distribution of different markers of inferential processes in a particular language, and this, in turn, allows for the observation of crosslinguistic patterns in the broader domain of epistemicity (in Boye's 2012 sense). Thus, consider Squartini's (2008) analysis of three prominent Italian markers related to the inferential domain. He shows that the distribution of the perception-based parenthetical *a quanto pare* 'as it seems' is very restricted, whereas evidential uses of the MUST-auxiliary *dovere* cover also (even mainly so) concept-based inferences, but it is barred from mere conjectures, for which, in turn, the (simple) future can be employed. In addition, from these three markers, only *a quanto pare* seems to be compatible with reportive contexts marked, e.g. in concert with the conditional, as in the following example (from Squartini 2008: 932, his translation and glossing):

(21)   ***A quanto pare*** *il presidente sarebbe scomparso: lo dicono i giornali.*
       '**Apparently** the president has disappeared (be.COND disappeared): that is what the newspapers say.'

Such observations suggest that only *a quanto pare*, but not *dovere* or the future, undergoes a functional extension into reportivity. In sum, this yields a rather neat distribution for these three markers, as shown in Table 2 (modified from Squartini 2008: 925).

Table 2: Form/function correlations in the inferential domain (Italian).

	Reportive contexts	Circumstantial inferences	Generic inferences	Conjectures
future	−	−	+	+
dovere 'must'	−	+	+	−
a quanto pare 'as it seems'	+	+	−	−

Since this distribution points at implicational relationships, it can easily be transferred into maps of epistemicity (like those in Boye 2012), even if the evi-

dential status of the future in Italian, and of conjecturals in general, remains debatable. Moreover, once obtained, the distribution of cognate or functionally similar markers in other languages can be tested in order to check to what extent this distribution can be considered a crosslinguistically recurrent pattern, and for which kinds of markers languages "deviate" from such a pattern. Basically, this has been done in connection with the "evidential profiles" provided for the languages represented in the present volume.

1.3.3 Other expression classes related to, but not included in, evidentiality

There are other classes of units which, though bearing a clear relation to knowledge (and its discourse-pragmatic exploitation), fail to meet the criterion of appealing, or referring, to a specific type of source.

One of them is a subset of what usually has been included into inventories of modal particles. This subset of modal particles has recently been dubbed 'enimitives' by Panov (2019, 2020). Enimitives are uninflected function words which frame a proposition as uncontroversial (Panov 2019: 71). Here are some examples (the translation with Engl. *after all* is only approximate, as English does not have good equivalents):

Lithuanian *juk*

(22) *Kaip priversti – ir ar reikia versti – vaiką skaityti knygas?* **Juk** *daguma dabartinių vaikų iškeitė jas į kompiuterį.*
'How to force a child to read books—and should it be forced? **After all**, most children of our days have replaced them [books] by the computer.'

[CCLL; R. Milašiūnas: Pokalbiai su psichoanalitiku. 2008]

Polish *przecież*

(23) A: *I czego chcesz ode mnie?* B: *W dzień jest w szkole, ale nie mogę jej zostawić samej w domu. Mogłaby u ciebie przenocować?* A: *Phil,* **przecież** *wiesz, że ja nie mam pojęcia o dzieciach.*
'A: What do you want from me? B: She's at school during the day, but I can't leave her home alone. Could she stay overnight at your place? A: Phil, **after all**, you know that I have no idea about children.'

[PNC; A. Barczyński: Ślepy los. 1999]

German *ja*

(24) *Laßt mich doch zu Gregor, er ist* **ja** *mein unglücklicher Sohn!*
'Let me see Gregor! **After all**, he is my unlucky son!'

[F. Kafka; cited from Panov 2019: 69]

Russian *ved'*

(25) *I v očerednoj raz Spilberg dokazal, čto možet snimat' ne tol'ko vysokobju-džetnye blokbastery, no i sdelat' xorošee, kačestvennoe kino za malye den'gi. **Ved'** dlja amerikanskogo fil'ma 50 mln $ ėto ne den'gi.*
'And once again Spielberg proved that he can shoot not only high-budget blockbusters, but also make good, high-quality movies for little money. **After all**, for an American film, $ 50 million is not money.'

[RNC; from an internet forum. 2006–2011]

Lith. *juk* in (22) serves to justify the preceding question by providing some knowledge background which the speaker assumes to be uncontroversial. Pol. *przecież* fulfils an equivalent function in (23), as speaker A objects to B's request by appealing to an assumed shared knowledge base. Similarly, Germ. *ja* in (24) justifies the speaker's urgent request, and in (25) Russ. *ved'* introduces a justification of the preceding assertion. As Panov emphasizes, and demonstrates, enimitives do not necessarily refer to knowledge that the speaker assumes to be shared with the interlocutor; nonetheless, such an appeal to shared knowledge is possible, as (23) shows (and the other three examples do not exclude). However, the important point to be made is that enimitives do not **specify** the source of information, as they do not raise an appeal to any specific piece of knowledge. Instead, the speaker simply insists that there is some motive for the respective illocution (and a possible propositional content), and that this motive is uncontroversial.

Examples (22–25) also show that enimitives can be used in justifications of different illocutions. This – together with the vague appeal to knowledge – suggests that their function does not so much consist in signaling justificatory background for propositional content; rather they are employed as argumentative devices to make one's illocutionary moves more convincing, and an appeal to possibly shared knowledge is but one option.[26] For these reasons, enimitives appear as only tangentially relevant for the substance domain of evidentiality and are therefore excluded from further consideration.[27]

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26 This is in line with the position made from the perspective of Relevance Theory: speakers use modal particles in order to make the interlocutor(s) understand that there is some reason for issuing the given speech act (among other things, for saying P). Modal particles should thus be conceived of as instructions to look for cues in the context for which the proposition (or illocution) at issue provides the most relevant connection as a premise, conclusion or motivation (König 2010: 84, 87, 94).

27 As a matter of fact, this decision would not change if the core function of enimitives (or any other subset of modal particles) were an appeal to shared knowledge. Diewald (2006) and

There are other types of units that should be excluded from evidentiality proper since they do not involve reference to specific types of evidence, but rather they are employed as discourse strategies to emphasize claims or access to knowledge for the speaker or the addressee. Such units can be united under meanings like 'as you know/as everybody knows' or 'of course'. Here belong sentence adverbs or parenthetical expressions like Sp. *como bien sabes*, Engl. *as you well know*, Russ. *(kak) izvestno*, Pol. *(jak) wiadomo* 'as is known',[28] but also Finn. *tietääkseni*, *tiettävästi*, and *tietysti* 'of course,', all of which are derived from *tietää* 'know' (Jaakola 2018). Interestingly, a very similar issue can be raised for bound markers like Khalkha Mongolian *-sang*, which marks past tense for established knowledge. In opposition to two past tense affixes of non-established knowledge (*-laa* for direct and *-jee* for indirect evidence), the semantics of *-sang* is very unspecific, which makes its status as an evidential debatable (Brosig 2018).

Borderline cases are units like Lith. *žinoma* (or *kaip žinoma*) 'as is known' (< *žinoti* 'know'), which are very frequent in reportive contexts and can therefore be regarded as emergent, or marginal, reportive markers (Usonienė and Ruskan, this volume: Section 12.4). A more advanced stage is attested for Gal. *seica* '(it) is said, apparently', which derives from *sei* 'I know' with a fused complementizer (*ca*). Obviously, a semantic shift from knowledge to speech has obliterated its original meaning, so that now it mainly targets the propositional content of speech acts (González Vázquez and Domínguez Romero, this volume: Section 8.2.2).

Finally, a point has to be made by returning to quotatives, in the sense defined first by Clark and Gerrig (1990) and more recently by Güldemann (2008), Buchstaller and van Alphen (2012) and in other work on 'new quotatives' (e.g., Tagliamonte and D'Arcy 2004); see Section 1.3.1. In the first instance, quotatives do not address propositions, but communicative behavior, i.e. illocutions. They are "used to mark the fact that whatever follows (or precedes, as the case may be) is a rendition of speech rather than a statement on reality. Quotatives introduce or in some way creatively reproduce something that was said, and this something need not be a statement with a truth value" (Holvoet 2018: 245). Such

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Diewald and Ferraresi (2008) have argued that German modal particles signal that the speaker assumes the content of their message to be presupposed in the communicative space shared with the interlocutor(s). Whether shared or not, enimitives alias modal particles do not refer to any specific kind, or piece, of knowledge.

28 Without the comparison marker (*kak*, *jak* 'as, like') these are also often used as complement-taking predicates.

a characterization clearly shows why quotation is to be set apart from reportive use.[29] Quotatives are more like rhetorical devices allowing the speaker to emphasize their attitude toward other people's verbal behavior. However, units (or constructions) dubbed 'quotative' are employed more broadly, since they are used not only to mimic other people's speech acts, but also gestures or other semiotic "substitutes" of speech; they are also used to construct thoughts and speech acts which the speaker only imagines and acts out, but which have never really occurred. Holvoet suggests that this latter usage domain be distinguished as interpretive, or echoic, use. Then, the more "canonical" type of quotative use (with reference to a particular situation and identified interlocutors) and the imaginative construction of other people's thoughts, expectations and behavior appear as two poles of a scale between which "there will be many intermediate situations" (Holvoet 2018: 248), covering all cases discussed in the literature that was mentioned at the beginning of this paragraph.

After all, regardless of how wide or narrow one captures quotatives, they fall outside the domain of evidentiality as delimited here. From a semasiological point of view, however, many evidential units (or constructions) show usage in the quotative domain as well and there are cases in which probably the one evolved from the other diachronically, and this diachronic relation remains to be investigated. Some of the language-specific chapters of this volume explicitly address this issue (cf. particularly on Russian and Polish),[30] and there are quite some borderline cases. Thus, for instance, Usonienė and Ruskan (this volume: Section 12.5) point out a couple of lexical markers in Lithuanian that, in their opinion, are better characterized as 'distancing markers', than as reportives proper, because they are primarily used to express the speaker's attitude to utterances referred to rather vaguely.

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29 According to Holvoet (2018), who follows Sperber and Wilson (1986), reportive use belongs to descriptive employment of language as it targets a statement about some state of affairs, whereas quotative use is interpretive since it targets the form of an utterance and comments on it taking into account the speaker's personal attitude to that utterance.

30 Cf. also Holvoet and Konickaja (2011) for a presumable diachronic pathway of Sln. *naj* as particle and complementizer with echoic > reportive use (also Sonnenhauser 2021 with more diachronic data), and Holvoet (2012) for an analogous proposal concerning Pol. *mieć* 'have > have to'.

1.4 Languages considered and divisions applied in this volume

This volume presents language-specific descriptions designed to provide profiles of evidentiality expressions in a variety of European languages. Section II presents profiles for three Germanic languages (English, Dutch, German), five Romance languages (French, Spanish, Catalan, Galician, and Portuguese), two Slavic languages (one East Slavic, Russian, and one West Slavic, Polish), one representative of extant Baltic (Lithuanian) and two isolates, one language from the Balkans (Modern Greek), and one non-Indo-European language (Basque). The language sample is limited in that it does not include Celtic, Scandinavian (North Germanic) or South Slavic languages. Moreover, the profiles are based on modern standard languages,[31] although each chapter closes with a section containing diachronic background for the marking devices included in the profile. To our knowledge, however, even for otherwise very well-described languages (like English, German, Spanish, Russian) there have not been so far any surveys which could be considered at once comprehensive, in-depth and composed on a comparable basis. Despite a focus on marking devices closer to the lexical pole (in accordance with Figure 2), grammatical evidentiality marking is accounted for if the respective language displays relevant TAM-paradigms or constructions that can be considered strategies or even conventionalized means of indirect information source.

This volume, as it seems, for the first time assembles accurate descriptions based on common denominators and with a focus on lexical markers, such as markers derived from SEE-verbs, SEEM-verbs, or SAY-verbs. These have been neglected probably because of a hitherto strong emphasis on grammatical marking (however defined; see Section 1.1–1.2). Within the Germanic group, Juana I. Marín-Arrese, Marta Carretero and Aurelija Usonienė describe a broad array of expressions for English along the lexico-grammatical continuum: open lexical classes (verbs, sentence adverbs, predicative adjectives), parentheticals, a closed set of modal auxiliaries with epistemic meaning, as well as various evidential constructions. Tanja Mortelmans describes the main evidential markers in Dutch, including modal auxiliaries, sentence adverbs, particles and verbs in particular construction types. Tanja Mortelmans and Katerina Stathi describe an inventory of expressions used to refer to a source of information in German,

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31 Some (rather occasional) observations on dialectal differentiation are made only in the chapters on Basque and Catalan, and the Dutch chapter sometimes points out differences between usage in the Netherlands and Belgium.

which are mostly lexical and typically optional and include modal auxiliaries, and verbs of appearance, sentence adverbs and prepositions.

The subsection on Romance languages includes the following chapters: Patrick Dendale describes a variety of evidential units in French, such as the epistemic modal *devoir,* several SEEM-verbs, the conditional form, idiomatic verbal expressions, sentence adverbs and adverbials, and prepositions. Juana I. Marín-Arrese and Marta Carretero describe a series of evidential expressions in Spanish, including open lexical classes (verbs, adverbs and adjectives), a closed subclass of modals, and past, future and conditional TAM forms, as well as parentheticals, conjunctive locutions and various constructions with the SEEM-verb *parecer*. Andreu Sentí describes similar types of evidential expressions in Catalan. Mercedes González Vázquez and Elena Domínguez Romero describe evidentiality in Galician, focusing on SEE and SEEM-verbs, modal auxiliaries and various reportive expressions, including the markers *disque* '(it) is said' and *seica* 'it is said, apparently, it seems'. Elena Domínguez Romero, Victoria Martín de la Rosa and Viviane de Moraes Abrahão describe similar expressions of evidentiality in Portuguese, including the reportive *diz que* '(it) is said'.

The chapters on Slavic languages include evidentiality in Russian by Björn Wiemer and Alexander Letuchiy, which describes evidential usage (with an account of meaning extensions from epistemic modals) of a broad diversity of units, including sentence adverbs or particles, and a number of predicatives. Björn Wiemer and Anna Socka describe evidential marking in Polish involving some modal auxiliaries with evidential (inferential or reportive) extensions, epistemic sentence adverbs (or particles), and predicatives, the latter mainly with inferential meanings.

The volume also includes three additional chapters on other European languages. Aurelija Usonienė and Anna Ruskan describe grammatical constructions and lexical means of coding evidentiality in Lithuanian, such as participle constructions and verbs and adverbs associated to the lexemes with meanings like SEE, HEAR, FEEL, SEEM and KNOW. Katerina Stathi describes evidentiality in Modern Greek, focusing on grammatical morphemes and function words, and also including some constructions with speech act verbs. Finally, Karlos Cid Abasolo and Marta Carretero, in the chapter on evidentiality in Basque, focus on evidential extensions, among others of epistemic modals; and on verbal and adverbial expressions that correspond to the meanings SEE and SEEM for inferential evidentials, and to SAY, (BE) LIKE and ACCORDING TO for reportive evidentials.

Finally, in Part III Björn Wiemer draws a comparison of the languages of this volume, which reveals that even among well-known and/or genealogically closely affiliated languages (like the languages representing SAE most closely:

French, German, Dutch) many differences can be found in the sets and ways in which markers have conventionalized evidential functions; some of them do not seem to have been accounted for before. For other closely affiliated languages, like the four Ibero-Romance ones, differences in this regard may be more subtle, but precisely these differences can supply valuable hints for usage-based research into the rise and entrenchment of evidential markers. This final chapter summarizes such observations and pinpoints main results, convergent and divergent properties of evidential units and sets in the languages of this volume.

1.5 Criteria in the contributions to this volume

A general schema (or grid) underlies the units included in the profiles. This schema is composed of abstract units representing meanings which are either found in lexical source expressions of evidential markers (on whatever point in morphologization clines or on the lexicon – grammar scale), such as SEE, SEEM, SAY, or which are otherwise recurrent points of departure for functions within indirect evidentiality, like the modal auxiliary MUST. These abstract units may be called hyperlexemes. They are labels for crosslinguistically recurrent types of evidential markers, in analogy to gram types (in the sense of Bybee and Dahl 1989; Bybee et al. 1994; Dahl 2000). Like gram types, hyperlexemes generalize over properties shared by language-specific markers; these markers can have different morphosyntactic formats, but they share properties that can be considered sufficiently distinct to set hyperlexemes apart from each other. Concomitantly, language-specific representatives of the same hyperlexeme carry individual properties which make them unique (and often difficult for crosslinguistic comparison).[32] For practical purposes, hyperlexemes have English labels, and many of their language-specific representatives are just translational equivalents of these English expressions. Thus, their description contains a common part of components relating to their meaning and grammatical behavior (characteristic of the respective hyperlexeme) as well as individual compo-

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32 Compare Dahl (2000: 7) on tense-aspect grams, which "can crosslinguistically be classified into a relatively small set of types. (...) Such gram types should not be thought of as absolute entities – characters chosen from a universal "gram alphabet" – but rather as the statistically most probable clusterings of properties in "grammatical space", or alternatively, as relatively stable points along the paths of development that grams take". Although grams of a certain type are kept together primarily by their semantics, a gram type is represented by elements "which can also be characterized as to [their] expressional properties", or "modes of expression".

nents, which may serve to contrast representatives of each hyperlexeme against each other.

All language-specific profiles in this volume account for the following hyperlexemes: *MUST*, *SEEM*, *SEE*, *SAY*, *(BE) LIKE*, *ACCORDING TO*. Though looking somewhat arbitrary, these hyperlexemes were chosen in order to achieve a good coverage of units that are most likely to occur in every European language, either because they are widespread etymological source expressions of evidential markers or of parts of constructions with a prominent evidential function, or because their translational equivalents in particular languages have often been discussed as a starting point of evidential functions, e.g. via evidential strategies. Apart from these hyperlexemes, each contributor was free to choose other units (or constructions) in their language-specific inventory, as long as the basic conditions (Anderson's criteria [a–c], see Section 1.1) were met. Deviations as for criterion [b] and [c] were admissible. As for [c], exclusions were made if, for instance, there was some construction (or constructional type) used with outstanding frequency in an evidential function; deviations as for [b] were admitted if the respective unit added some important characteristic to the overall inventory of evidential marking in the given language and, thus, to its profile.

All the language descriptions and claims are based on data drawn from well-established corpora in the respective languages. The discussion of all units chosen was arranged according to evidential subdomains: inferential, reportive, and indirect-indefinite. The last subdomain covers expressions that mark some function from indirect evidentiality (this includes inferences from hearsay; see Section 1.3), but within this domain the discrimination of the specific source is highly context-dependent. In addition, word class distinctions served as ordering criterion, and cases of heterosemy (see Section 1.2.3) were pinpointed. Additional sections were inserted if there were remarkable borderline phenomena to be pointed out, e.g. discussions about quotatives (e.g., in the chapter on Russian) or the arguable status of distancing markers as evidentials (e.g., in the chapter on Lithuanian). Thus, although the core of the units chosen was determined rather strictly for all language-profiles, there was also enough 'leeway' for interesting phenomena to be included into the inventory or to discuss arguable points. The latter might be taken as incentives for more systematic crosslinguistic research with a better control over methods of comparison.

Finally, we should emphasize that, as a rule, translations of language-specific units, and of examples, into English are only approximate. They serve as an orientation to "get the meaning", in most cases the reader has to rely on more specific and adequate information from the description. This comment might seem trivial, but in view of the often highly context-sensitive and versatile

meaning potential of the units and constructions involved, lack of semantic (or functional) equivalence between languages (in particular with English as the dominant metalanguage) is a particularly important issue in the case of information source marking. As it seems, insufficient awareness of lacking equivalence with English (or another metalanguage), and of possible distortions by purported closest translational equivalents, has been causing misunderstandings among researchers who communicate their results on evidentiality studies.

Abbreviations

Language names

Ba.	Basque
Bulg.	Bulgarian
Cz.	Czech
Engl	English
Fr.	French
Gal.	Galician
Germ.	German
Gr.	Greek
It.	Italian
Lith.	Lithuanian
Pol.	Polish
Russ.	Russian
Sln.	Slovene
Sp.	Spanish

Glossing

3	third person
ACC	accusative
AUX	auxiliary
COND	conditional
DAT	dative
DEF	definite article
ERG	ergative
F	feminine
FOC	focus
FUT	future
IMPF	imperfect
IPFV	imperfective
LPT	anteriority *l*-participle (Slavic)

M	masculine
NCF	non-confirmative (Bulgarian)
NEG	negation
NOM	nominative
PFV	perfective
PL	plural
PN	proper name
POSS_REFL	reflexive possessive pronoun
PRF	perfect
PRS	present
PROCL	proclitic
PST	past
PTC	particle
PTCP	participle
RM	light reflexive marker
SG	singular

Corpora used

BNC: *British National Corpus,* Oxford University Press. <http://www.natcorp.ox.ac.uk/corpus/>
CCLL: *Corpus of the Contemporary Lithuanian Language* – http://tekstynas.vdu.lt/tekstynas/
CESJD: *Corpus of English and Spanish Journalistic Discourse*. Comparable corpus of journalistic texts (opinion columns, leading articles, and news reports) in English and Spanish (compiled by Marín-Arrese).
COCA: *Corpus of Contemporary American English*. <https://corpus.byu.edu/coca/>
CREA: *Corpus de referencia del español actual*, Real Academia Española. <http://www.rae.es>
PNC: *Polish National Corpus* http://nkjp.pl/
RNC: *Russian National Corpus* https://ruscorpora.ru/new/

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Part II: **Language Profiles – Germanic**

Juana I. Marín-Arrese, Marta Carretero and Aurelija Usonienė

2 Evidentiality in English

2.1 Introduction

Evidentials indicate the source of information and/or the mode of access to the evidence on the basis of which the speaker/writer (henceforth S/W) feels entitled to make a claim (cf. Anderson 1986). Within the literature on evidentiality, the focus has traditionally been on grammatical evidentiality, that is, those systems of languages where marking the information source is obligatory and is typically realized by a set of closed-class elements (cf. Aikhenvald 2004). In a more recent study, Aikhenvald (2007: 209) notes that "[e]very language – no matter whether it has a fully grammaticalized evidential system, or evidential extensions of other categories – has an array of further ways of describing how one knows things". She proposes to make a distinction between the term 'evidentiality' to refer to the grammatical category of marking information source and the corresponding conceptual category 'information source': "the term 'evidential' is best used for closed grammatical systems, and the term 'information source' for the vast body of other ways of referring to knowing things" (Aikhenvald 2007: 222). As Aikhenvald (2014: 2) notes, "[t]here are, however, significant differences between evidentials and non-primarily evidential means 'co-opted' to cover some information sources". Whereas grammatical evidential systems are typically closed and subject to specific restrictions, the expression of information source in languages lacking a grammatical evidential system is more versatile, typically including both "closed classes of particles and modal verbs, and a potentially open-ended array of verbs of opinion and belief" (Aikhenvald 2014: 3).

English belongs to the Germanic group of languages, which has no obligatory grammatical category of evidentiality. But the substantial range of expressions that signal evidentiality is a phenomenon that begs explanation from a functional-onomasiological perspective (cf. Wiemer 2010). As Lampert and Lampert (2010: 319) argue, "the category of evidentiality is of use only, we conjecture, if a radical conceptual stance is taken in order to not miss capturing alternative linguistic strategies of expressing this notion". This broader conceptual category of 'evidential expressions' convey at the same time a wider and more fine-grained range of meanings including belief states and belief attributions, and information about how those beliefs were produced or acquired (Ünal and Papafragou 2020). For the realization of the conceptual domain of evidentiality in English, we find a broad array of expressions along the lexico-

grammatical continuum: open lexical classes (verbs, sentence adverbs, predicative adjectives), parentheticals, a closed set of epistemic modal auxiliary verbs, as well as various evidential constructions. Examples include the following expressions: SEE-verbs (*I see, as can be seen*, etc.), SEEM-verbs and adverbs (*it appears + COMP[1], it appears + INF, it seems + COMP, it seems +INF, it looks, it turns out, evidently, obviously*, etc.), THINK-verbs and adverbs (*I think, I reckon, supposedly*, etc.), SAY-verbs and adverbs (*they say, it is said, it is alleged/stated, I hear, you hear, allegedly, reportedly*, etc.), and parentheticals.

The present chapter focuses on two basic types of evidential meanings in English: (a) Indirect-Inferential (IIE), and (b) Indirect-Reportative (IRE). It is organized as follows. Section 2.2 discusses various types of inferential units, such as markers derived from SEE-verbs and from SEEM-verbs, as well as inferential extensions of modal auxiliaries and sentence adverbs. Section 2.3 describes reportative markers derived from SAY-verbs, and sentence adverbs, as well as markers derived from SEEM-verbs and THINK-verbs. Some cases of multifunctional and indirect-indifferent units are presented in Section 4. Section 5 discusses further items and issues, and the final section is devoted to some remarks on diachrony.

Examples provided in the chapter are drawn from the following corpora: *British National Corpus* (henceforth BNC), *Corpus of Contemporary American English* (COCA) and *Corpus of English Spanish Journalistic Discourse* (CESJD).

In the literature we find various subdivisions of the domain of evidentiality, which draw on classifications proposed by Willett (1988), Plungian (2001), Diewald and Smirnova (2010), Cornillie et al. (2015) and Marín-Arrese (2015), among others. The following illustrate the most common subcategories (from Marín-Arrese 2017a: 198–199):

(i) Direct Perceptual Evidentiality **(DPE)**: expressions indicating speaker/conceptualizer's direct, non-mediated access to visual or other sensory evidence.

(1) *When, on a hot day in London, **I see** <DPE> a woman wrapped in a black sack tagging along beside a guy in light T-shirt, jeans and sneakers, my first reaction is: "How bloody unfair!"*   [CESJD-EOG]

(ii) Indirect-Inferential Evidentiality **(IIE)**: expressions indicating speaker/conceptualizer's indirect access to information, through inferences triggered on

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1 For abbreviated category labels, see *Leipzig Glossing Rules*. See list of abbreviations for category labels not included in LGR.

the basis of personal access to perceptual evidence, or conception-based inferences founded on personal knowledge involving conceptions or beliefs, or else communication-based inferences, that is, inferences based on knowledge acquired through social communication sources (reports, documents, other speakers, etc.).

(2) *The main focus of concern used to be the effect of tourism on wildlife, but **it seems** <IIE> these days that the wildlife has the edge over the teeming poor.* [CESJD-ELT]

(iii) Indirect-Reportative Evidentiality **(IRE):** expressions of indirect, mediated access to the information through social communication with some external source(s).

(3) <u>*According to the sources*</u>, *about 18 months ago, a 27-year-old Saudi made his way down the dusty track to the main road. His trip, **it appears** <IRE>, started at al-Farooq, where he had been training for several months. It was to end on American Airlines Flight 11 as it flew into the north tower of the World Trade Center.* [CESJD-ENG]

Within the EUROEVIDMOD⋆ project, and in this chapter, we restrict our focus to two of the values or subcategories of evidential expressions: (a) Indirect-Inferential evidence (IIE), and (b) Indirect-Reportative (IRE).

2.2 Indirect-inferential

Inferential evidentials in English mainly involve various lexical expressions indicating S/W's inference based on perceptual evidence, or inference based on S/W's personal knowledge involving conceptions and beliefs and their knowledge of the world, or inference founded on various forms of communication, documentary evidence, oral or written reports, and others (cf. Marín-Arrese 2015, 2017a). The following examples illustrate these modes of access: perception-based, conception-based and communication-based[2] inferential readings respectively (Marín-Arrese 2015: 213, 2017a: 199):

(4) (**IIE: Perception-based**) *CONAN: We're talking with David Gergen about the White House and image control. [...] And, David, you mentioned back-*

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2 The term 'report-based' used in previous publications, Marín-Arrese (2015, 2017a), has been modified to 'communication-based', to avoid possible confusion with indirect reportative evidentiality, and because it best captures the broader nature of the sources of evidence.

firing. Mistakes can happen too – <u>the video released of the soldiers in Iraq</u> **apparently** *<IIE> <u>being prepped for their conversation with the president</u>. Mr-GERGEN: Absolutely, because it becomes too overcontrolled*, ...

[COCA, SPOK: NPR_TalkNation, 2005]

(5)   (**IIE: Conception-based**) *A burst of publicity can have as heady an effect on politicians as a bottle of champagne. It can also leave them feeling rotten the next day. William Hague went repeatedly for the high and let himself in for the subsequent hangovers, but I had thought Ian Duncan Smith was better able to resist. It* **seems** *<IIE> I was wrong. <u>The Conservative leader's hijack of the case of Rose Addis has won him a few days' headlines</u>. His colleagues are pleased that he has made an impact. But at what cost?*   [CESJD-EOT]

(6)   (**IIE: Communication-based**) *Immediate matters arising from the appointment of Louis Gerstner as the next chairman and chief executive of IBM Corp: Gerstner says he made three IBM executive decisions – all of them undisclosed – during the five-block walk from the Midtown Manhattan Hilton where the announcement of his appointment was made and IBM's Madison Avenue offices; and while many say that it has looked to be that way for most of this year,* **it seems** *<IIE> that for a couple of days, IBM really will be leaderless, <u>because John Akers says he will resign at today's board meeting, and Gerstner is not due to take up his posts until Thursday</u>.*   [BNC]

The following section will be devoted to the analysis of the following types of markers: (a) markers derived from SEE-verbs; (b) markers derived from SEEM-verbs; (c) inferential extensions of modal auxiliaries; and (d) inferential sentence adverbs.

2.2.1 Markers derived from SEE-verbs

As Whitt (2010) observes, the use of perception verbs, denoting sight, sound, touch, smell, and taste, is central in indicating evidentiality in English. In his cross-linguistic typological survey of perception verbs, Viberg (1983: 136) identified the following hierarchy for perception verbs: Sight > Hearing > Touch > Smell, Taste. Within this hierarchy, "verbs of visual perception enjoy the highest frequency of usage and greatest degree of polysemy" (Whitt 2011: 348). Boye (2012: 138–140) has similarly observed that predicates of visual perception may be considered synchronically polyfunctional in a number of diverse and genetically distinct languages, with attested multifunctional expressions for direct and indirect justification.

The verb of direct visual perception *see* characteristically undergoes a process of subjectification whereby the meaning extends from denoting access to external perceptual situations to that of internal cognitive processes of knowledge and inference (Traugott 1989: 34–35). In English, the verb *see* may be found with the value of direct perceptual evidence (DPE), involving direct personal access to visual or other sensory evidence, external to the S/W (7). As an evidential, the verb *see* may also be found with an inferential meaning (IIE) (8).

(7)   *From the hills beside Bel Younech, a Moroccan coastal hamlet close to Perejil, two red and gold Spanish flags **could be seen** <DPE> flying where, until yesterday, the red and green of Morocco had been on display.*

[CESJD-ENG]

(8)   *Europe remains the central issue of British politics. The voters may care more about health and education, but the gap between policies in these areas is relatively narrow, as we **have seen** <IIE> from Labour's failure to reform the NHS in any effective way.* [CESJD-EOT]

2.2.2 Markers derived from SEEM-verbs

Since the publication of the seminal volume by Chafe and Nichols (1986), where evidentiality is interpreted very broadly as "any linguistic expression of attitudes toward knowledge" (Chafe 1986: 271), SEEM-verbs (*seem, appear, look*) have been predominantly conceived as markers of evidentiality[3] (Chafe 1986; Anderson 1986; De Haan 2007; Aijmer 2009; Usonienė and Šinkūnienė 2013).

The most common SEEM-verbs in English used to code inferential evidentiality are *seem, appear* and *look*. A series of constructional variants of English *seem* and *appear* with an evidential reading are commonly distinguished in the literature (Gisborne and Holmes 2007; Aijmer 2009; Lampert 2011), namely:

(i)   Raising construction, *seem/appear* + INF;
(ii)   Unraised construction with an expletive subject, *it seems/appears + that*. COMP, or + Ø-COMP, as complement-taking predicates (CTPs) followed by finite complement clauses;

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3 See Lampert (2020) for a detailed account of the shifts in *seem*, from its location in the semantic space between 'factuality vs. fictivity', to its function as hedge, and to its use as an evidential marker.

(iii) Minor 'comparison' construction, *seems/appears + like/as if/as though.* COMP + finite complement clauses[4]; and

(iv) Parenthetical *seem/appear.*

With respect to the evidential values of the constructional variants of *seem* and *appear,* we may observe that: in (i) *seem(s)*+INF in the petrified PRS.IND.3SG-form, or in parenthetical use, tends to be employed with an inferential value, and the same tendency is found for *appear(s)*+INF; in (ii) *it seems*+COMP also clearly favors inferential uses, whereas *it appears*+COMP shows a preference for reportive values, which may be pointing to the development of a division of labor for these expressions (Marín-Arrese 2017: 216).

The following are examples of type (i) and (ii) constructional variants, both with inferential meaning:

(9) *"... Which political party is in power in your province or territory? What is the name of your Lieutenant Governor?" This test does not **appear** <IIE> **to** be widely resented; advisory websites, chat rooms and legal firms offering assistance take an almost giggly tone of cheerful fun and achievement.*
[CESJD-EOT]

(10) *..., the rulers of these countries would feel utterly betrayed if the US now appeared to be turning back. Putting all these factors together, **it seems** <IIE> **that** war in Iraq is almost inevitable within the next month. And unfortunately, the consequences of this war now look far more daunting than they did...* [CESJD-EOT]

The following example with *look* is an instance where the basis for the inference, perceptual or other, is not straightforward or transparent:

(11) *Miss Whiplash and Bash the Barbarian are still doing battle over the right to reply, and <u>judging by the amount of mail each receive</u> it **looks** <IIE> **to** be about even at the moment.* [BNC]

With examples containing a type (iii) constructional variant, we also find perception-based (12) and conception-based inferences (13), and cases where the inference derives from knowledge acquired through communicative sources,

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4 López-Couso and Méndez-Naya (2015) show that the complementizer function of *as if*, *as though* and *like* is the result of a process of grammaticalization derived from their function as adverbial subordinators.

such as reports, documents, etc., (14), though this reading is most often context-dependent:

(12)   *Sally Morrisey, the night sister, had just completed the hand-over as Lindsey walked into Reception. She nodded, smiling ruefully, in the direction of the waiting area.' It* **looks** *<IIE>* **as if** *you're in for a busy morning.* <u>*It's pretty full out there*</u>.   [BNC]

(13)   <u>*In keeping with the career pattern of your chart*</u>*, it* **seems** *<IIE>* **as though** *money will come in from a variety of sources*.   [BNC]

(14)   *'***Seems** *<IIE>* **like** *there is something special going on over there tonight', Taff*.   [BNC]

An example of type (iv) parenthetical expressions is the following:

(15)   *There is,* **it seems** *<IIE>, no such outcome in politics as a clear failure, merely an unfortunate setback. It is in this spirit that governments from the developed world, especially, have attempted to portray their inability to agree on even a basic outline for another round of multilateral trade negotiations after a marathon series of meetings last week in Seattle.*

                                                                              [CESJD-ELT]

Differences in degree of commitment may be observed with SEEM-verbs when combined with the complementizers *that* or with *as if*, *as though* and *like*, the latter being associated with a weaker commitment. The choice of complementizer is relevant because *as-if/though* and *like*-clauses often signal that the inference is basically conjectural and based on comparison with a virtual or potential situation, as in the following example, thus indicating a weaker commitment to the propositional content than in clauses with the complementizer *that*:

(16)   *Bernard Shaw has just completed the fourth volume, but it* **appears as if** *bricks, not books, will finish him off.*   [BNC]

When these verbs of seeming are used with the complementizers *like, as if, as though,* the inference may have the status of a Generalized Conversational Implicature (GCI), which may be cancelled, or not even triggered, if the proposition is false. In those cases, the expression simply refers to apparent evidence with only a tentative or provisional qualification of commitment to the proposition expressed in the complement clause, as in the following example:

(17)   *The results are greeted by wild applause as one act is toppled from the lead by another and so on. Only four results left and so far Lenny Henry has just taken a clear lead from Victoria Wood.* **It looks as though** *he's won,*

> *but no, the Liverpudlian comic, Al Dean, is awarded 97 out of a possible*
> *100 points. He's won.* [BNC]

The difference between these complementizers and *that* is clearly seen when they are combined with verbs that do not refer to appearance, such as *be*. Declerck (1992: 223) states that the '*it-is-as-if* construction' expresses "what the speaker infers to be a possible interpretation of a given situation" (see also López-Couso and Méndez-Naya 2012: 181). We reinterpret this difference along the lines of the preceding paragraphs: the constructions *it + be + as if*, *it + be + as though* and *it + be + like* may have an evidential reading in their own right. In the same way as in the construction with explicit verbs of seeming, the inference may be considered a GCI. Thus, *it is as if* invokes an evidential inferential meaning in (18), but not in (19), which is closer to a comparison reading.

(18) *And she like goes up to him quite freely and just kisses him on the lips, you*
      know okay fair enough people have friendships like that but it's not a kind
      *of kiss on the cheek **it is as if** there's something in it, you know, **as if** al-*
      ways she's rubbing it into him. [BNC]

(19) *When men live in the transcendent they become lost to the world; **it is as if***
      they speak an unknown language and are no longer understood by other
      men. [BNC]

The quantitative study of the complementizers *as if, as though* and *like* governed by the verbs *appear, feel, look, seem* and *sound* carried out in López-Couso and Méndez-Naya (2012) provides evidence that they are characteristically associated with the spoken language. There is a cline of formality for the three complementizers in written present-day British English and American English, *as if* being the most formal and *like* the most informal. In the written language, they were found to be more frequent in imaginative prose (and particularly in dialogues included in fiction) than in informative prose (López-Couso and Méndez-Naya 2012: 184–186). This research also showed that these complementizers were more frequent with the verbs *look* and *sound*, while the converse was the case for *appear, feel* and *seem*, which showed a preference for the complementizer *that*.

2.2.3 Inferential extensions of epistemic modal auxiliaries: *must*

There has traditionally been certain controversy in the literature regarding the evidential status of the English epistemic modal *must*. The relationship between the categories of epistemic modality and evidentiality, as Dendale and Tasmowski (2001: 341–342) note, has variously been regarded in terms of "disjunc-

tion (where they are conceptually distinguished from each other), inclusion (where one is regarded as falling within the semantic scope of the other), and overlap (where they partly intersect)". Aikhenvald (2004: 7) assumes that evidentiality and epistemic modality are crosslinguistically "fully distinct categories": evidential expressions may have epistemic extensions or *vice versa*, but it is important to determine the primary meaning of each expression. Van der Auwera and Plungian (1998), however, note that the meaning of English *must* is best situated in the overlap between the semantic space of inferential evidentiality and that of epistemic necessity. In a similar vein, Squartini (2008) observes that a characteristic feature of epistemic modal *must* is that it very often associates circumstantial[5] inferential meaning.

According to the cognitive linguistics conception of epistemic modality in terms of force dynamics, epistemic meaning arises from the notion of force (compulsion vs. the absence of a barrier), first manifested at the social level attached to 'root modals' *must* and *may*, which then extends to the notion of force at the mental level (cf. Sweetser 1982). The notion of potency at the mental level may then be interpreted as the force of evidence which leads the S/W to the most likely conclusion. In Langacker's (1991: 274) words, the activity of the speaker as the primary conceptualizer "can be thought of as the weighing of evidence". When that conception is used to project the future evolution of reality "the mental path he thereby traces can be thought of as a deductive path leading from the evidence toward a possible conclusion" (Langacker 1991: 274).

(20)　　*For Mr Blair, who presides over a party still riven by much deeper ideological fissures than were Mr Major's Tories, running a Government with a modest majority* **must** *<IIE> be a daunting prospect.*　　　[CESJC-EOT]

It has likewise been argued (Lampert 2011; Marín-Arrese and Carretero 2014) that other epistemic modals, such as *may* and *might*, also exhibit the meaning of the force of evidence. Lampert (2011: 9) notes that,

> [i]n definitions of epistemic modality in terms of a mapping of forces, the notion of evidence becomes part of the definition, thus making obvious the relatedness of the two concepts, but at the same time also the problems involved; in the epistemic domain, the only

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5 Squartini (2008: 925) identifies three types of inferential processes: *circumstantial* inferences, where the speaker's reasoning process is "heavily supplemented by external sensory evidence", *generic* inferences, which involve "a balanced proportion of the speaker's own reasoning and external information deriving from general world knowledge", and *conjectures*, where "all external evidence is missing, the speaker being solely responsible for the reasoning process".

imaginable 'force' can be the 'force of evidence' (in the form of premises), which would, for instance in the case of epistemic *must*, compel the speaker to conclude that p. But the force of evidence is also present in the other epistemic modals, such as *may* and *might*—the only difference between them perhaps being that the conclusion is stronger or weaker.

De Haan (2009: 268), however, makes the point that the conclusional force of *must* does not necessarily mean that it should be considered an evidential marker but rather an evaluative element, which indicates that the evidence is evaluated "according to its likelihood of being true". An integrative position is held by Boye (2012: 24), who observes that "both notions (epistemic necessity and inferential justification) need to be invoked" in order to account for the meaning and use of epistemic modal *must*. The diachronic extension of indirect inferential evidential value posited for the epistemic necessity modal *must* would involve a link between the semantic spaces of 'partial support' (epistemic modality) and 'indirect justification' (evidentiality). The view of *must* as an 'epistential' marker, situated at the intersection of the epistemic and evidential domains, is originally found in Faller (2002: 87–90).

Those features which are typically associated with evidential meaning, such as perception-based inferential meaning and overt justification of information, are relatively frequent for English *must*. These characteristic features seem to point to an extension of the meaning of *must* towards that of indirect justification within the domain of evidentiality.

2.2.3.1 Type of evidence and inferential meaning

As in the case of the verb *seem*, we also find cases of perception-based, conception-based and communication-based inferential meaning with modal *must*. Sanders and Spooren (1996: 245) note that modal *must* combines with both 'observational evidence' and 'knowledge-based evidence', where the conclusive force is dependent on S/W's reasoning based on their knowledge about a situation. Examples of the perception-based inferential meaning are mostly found in spoken English.

(21)   (IIE: Perception-based) *<hit text="KBW" n="18252"> Oh. She can bear I wouldn't like to say what they're doing. Look at that one, he's on his back. Is one of them a drake then? <kw>**Must**</kw> be. Yes. Which one's which? <u>Well he's got a little. That one's on the other's back</u>. Oh I say! Oh they might they're coming for a swim now look. Ooh just gonna have </hit>*

[BNC-Baby]

Nonetheless, cases of conception-based inferential meaning are the highest in frequency for both spoken and written English.

(22)　(IIE: Conception-based) *In reaching out to the Liberal Democrats, he seemed to display a generosity of spirit – and did so safe in the knowledge that they were never likely to accept his offer. He has welcomed the preposterous Tory MP Quentin Davies (clubs: Brooks's, Beefsteak, Travellers) into the Labour fold. Ouch! That* **must** *<IIE> have hurt. Most important, because it reflects substance rather than style, Brown has disdained any lurch to the Left and has come out as the new Labour man he always was.*
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[CESJC-EOT]

In our data, there were one or two marginal examples of *must* with inferential meaning based on evidence from reports or hearsay, typically found in the context of a lexical expression (see underlined) indicating speech representation.

(23)　(IIE: Communication-based) *Although it never becomes clear why so many women should pay for this woman's advice on their lifestyles, it is clear, <u>from both Cherie and Alleway's repeated, almost hypnotised allusions to her as "my friend",</u> that Caplin* **must** *<IIE> offer something other fitness instructors do not. Certainly her new-agey charms are sometimes wedded to merciless analysis.*　　　　　　　　　　　[CESJC-EOG]

However, modal *must* is not found with a reportative evidential meaning. As Marín-Arrese (2018: 90–91) observes, "[m]odals in English, as grounding elements, are inherently subjective; they thus evoke the speaker as the implicit conceptualizer, and this feature appears to effectively block further extension of modal *must* to the domain of reportative evidentiality, as has also been ascertained for Spanish *deber (de)*".

2.2.3.2 Evidential justification: overt justification vs. non-overt or no evidence

One of the relevant features of evidentiality is that of the explicit specification of the evidential justification for the proposition, that is, whether there is an overt reference to the evidence for the claim in the immediately preceding or following co-text, or whether the claim expressed in the proposition is not based on any overt evidential justification (cf. Hoye 2009; Marín-Arrese and Carretero 2014).

　　　In accordance with the purported evidential nature of *must*, we would expect frequent cases of evidential justification in the case of this expression, which is, in fact, often the case in examples of *must* in spoken English, as in the following example:

(24) <hit text="KB7" n="755"> *She was screaming and <u>you could hear </u>her cry-ing. <u>Then you hear,</u> she pounded up the bloody stairs and he was after her and <u>I reckon </u>well the only room with a lock As you say is the bathroom. is the bathroom, <u>so</u> she <kw>**must**</kw> **have been** <IIE> in there <u>cos he's hammering on the door and bashing it and kicking it</u>. Bloody hell of a row.* </hit>   [BNC-Baby]

Cases of non-overt evidential justification or no justification are also found. These are mostly instances involving generic inferential meaning, i.e. S/W's reasoning on the basis of information deriving from general world knowledge, or conjectural inferences, based solely on the S/W reasoning process (Squartini 2008), as in:

(25) *Because, so damnably often, Europe has not been at peace. Even fatuous Freddie must remember Bosnia and the second horror of Sarajevo. Even Sayers Jr **must** <IIE> have seen pictures of Flanders fields and thought of the millions upon millions of people – young people – who perished there.*
                                                                          [CESJC-EOG]

2.2.3.3 Epistemic and/or evidential meaning

Non-factual verbs of cognitive attitude (cf. Hennemann 2012) express epistemic stance in English, and indicate S/W's reflective attitudes or beliefs regarding propositions or states of affairs. As Cappelli (2007: 123–124) observes, these expressions involve the epistemic evaluation or "the assignment of a 'likelihood degree' to a representation". Parentheticals with cognitive attitude verbs, such as *I think/suppose/guess/reckon,* express subjective epistemic stance, and may, depending on the context, be interpreted as involving conception-based infer-ences or conjectures. Likewise, as Brinton (2005: 144) notes, "in addition to epistemic and evidential meaning, they serve purposes of intimacy and 'posi-tive' politeness (self-effacement and deference)".

The variant of *seem* with an explicit experiencer (*seems to me*) is a subjecti-fied form which is more akin to verbs of mental state such as *I think* or *I believe,* a cognitive attitude or belief-type of expression (Marín-Arrese 2017b). Sanders and Spooren (1996: 246) note that I-embeddings "explicitly encode the speak-er/writer's personal limitation of the validity of information", thus the commu-nicated information is maximally subjective. Nuyts (2005) uses the term 'subjectifier' and considers that they do not belong within the functional cate-gory of evidentiality. López-Couso and Méndez-Naya (2012: 188) also note that the expression *it seems to me* may be interpreted as "indicat[ing] the speaker's

belief and his or her commitment to the truth of the proposition in the sub-clause", and is a less face-threatening alternative to *I think* or *I believe*:

(26)   **It seems to me** *the only way our congressmen (mostly Republicans) are going to rebuff the NRA is if their own children are killed by gunmen. The slaughter of children in schools hasn't changed their attitudes. Apparently, even those tragedies didn't hit quite close enough to home for them.*

<div align="right">[COCA, NEWS: Denver Post, 1999]</div>

Perceptual evidentials, such as *seem* or *look*, without the I-embedding, most often convey intersubjectivity. As Sanders and Spooren (1996: 258) observe, evidentials typically associated with perception-based evidence presuppose "intersubjective, manifest evidence, observable by more persons than the speaker", so that "the commitment to the validity of the information is shared or at least potentially shared by the speaker/listener and other participants". However, when these perceptual predicates involve conception-based evidence, the inferential evidential meaning often displays a shade of (un)certainty, which may be regarded as a subjective epistemic extension of the evidential.

(27)   *It is unlikely that the final report will be published in October, as was origi-nally planned; the end of November, perhaps the beginning of next year,* **look to be** *more likely publication dates, leading to an inevitable delay in implementation.*   [BNC]

2.2.4 Inferential sentence adverbs: *apparently, clearly, evidently, obviously, seemingly*

In English, we find a considerable number of evidential expressions in the open lexical class of adverbs: *apparently, clearly, evidently, obviously, seemingly*. Within expressions of evidentiality, sentential adverbs count among the most obvious candidates, as attested by a number of studies (Simon-Vandenbergen and Aijmer 2007; Celle 2009; Ruskan 2015; Wiemer and Socka 2017; Carretero et al. 2017).

The meanings of these adverbs, which evoke appearance and manifest evi-dence, are defined in the Oxford English Dictionary (OED) as: "distinctly visible or perceptible", "with perfect clearness", "manifestly to the sight", etc. Their evidential meaning may be described as follows: "So far as it appears from the evidence; so far as one can judge" (OED).

(28)   *And my accident occurred one night as I was driving home from work. I was in Harvard Square, and a woman driving a Honda* **evidently** <IIE>

wasn't paying attention and smashed into the back of my car, jarring, you know, me out of the driver's seat almost. [COCA, SPOK: NPR, 2014]

(29)   *In Wednesday's shooting, Paul Brandin, 51, of Denver, pulled into the inter-section just after the shooting and got out of his car. He saw a man **apparently** <IIE> helping another person in a vehicle who had been shot. He saw another man tussling with the apparent gunman.*

[COCA, NEWS: Denver Post, 2006]

These adverbs may sometimes be ambiguous, having both manner and senten-tial readings. Sentence adverbs, or clause-oriented Adjuncts, in the words of Huddleston and Pullum (2002: 575–578), "represent modifications of the ap-plicability of the clause content", characterizing "how the propositional content of the clause relates to the world or the context", their meaning contribution to the clause being "much more external to the content of the proposition". Along similar lines, Quirk et al. (1985: 620) assign sentence adverbs to their category of 'Disjunct', since they are "syntactically more detached and in some respects 'superordinate', in that they seem to have a scope that extends over the sen-tence as a whole" (Quirk et al. 1985: 613). As Egedi (2009: 110) has observed,

> manner adverbs are closely related to the predicate, being located below the universal quantifier(s) and negation. [...]. Sentence adverbs, on the other hand, seem to fall outside the predicative portion of the sentence; they can be neither focused, nor negated.

In sum, sentence adverbs belong to a speaker-related functional domain in that they are "attitude markers that provide additional information that is external to the proposition expressed by the core sentence" (Egedi 2009: 111).

According to this characterization, they fulfill Anderson's (1986: 274–275) second condition, since they are not part of the main predication of a clause but rather a specification about a main predication or, in terms of Boye and Harder (2009: 23–27), they constitute secondary information. Apart from the basic con-dition that the meanings may be described in terms of the notion of evidence, Boye (2010: 304) argues that "for a given linguistic expression to be considered as having evidential meaning, it must be attested with a proposition-designat-ing clause as its semantic scope", that is, not a states-of-affairs-designating clause.

There are a number of criteria which serve to distinguish between the uses of these expressions as sentence adverbs or predication adverbs: (a) while sen-tence adverbs may appear in every possible position in the clause (Kaltenböck 2009), predication adverbs tend to precede the predicate; (b) sentence adverbs may be fronted in pre-topic constituent position, as in (30); (c) sentence adverbs

do not fall within the scope of negation, as in (31), nor can they be modified by Subjuncts such as *only*.[6]

(30)   *It seems to me the only way our congressmen (mostly Republicans) are going to rebuff the NRA is if their own children are killed by gunmen. The slaughter of children in schools hasn't changed their attitudes. **Apparently** <IIE>, even those tragedies didn't hit quite close enough to home for them.*
[COCA, NEWS: Denver Post, 1999]

(31)   *But the current public mood, laced as it is with racist attitudes, **seemingly** <IIE> doesn't distinguish between legal and illegal immigrants. That means that even people who are obeying the law, working for a living, and paying taxes – the legal immigrants – are being targeted and penalized.*
[COCA, NEWS: Denver Post, 1997]

Adverbs such as *clearly, evidently* and *obviously* indicate sources of information which may be considered conventionally high in reliability, so that the communicated information is esteemed as high in validity. The adverbs *apparently* and *seemingly* would indicate a medium to low degree of reliability of the source. Nuyts (2014: 62) regards evidential inferentiality as a scalar category similar to epistemic modality. Thus, according to Nuyts (2014: 62), *seemingly* is used to indicate "low confidence/reliability" with which the S/W makes the inference, while *apparently* is claimed to code medium confidence.

The conception-based inferential sense of *obviously* involving personal knowledge and/or knowledge of the world is quite frequent, as illustrated in the following example and co-occurring with inferential *must*:

(32)   MAX-IRONS: *Well, I thought great. But then I thought they have **obviously** <IIE> made a mistake. They must have been drunk when they were casting. Because why I cast an English actor as an Austrian opera singer because I can't either speak Austrian or sing opera.*   [COCA, SPOK: NBC, 2015]

Non-evidential, interactional uses of *obviously* with an intersubjective expressive function of establishing a common ground with the addressee are often found (Carretero et al. 2017: 46), as in the following example:

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6 According to Quirk et al., Subjuncts, are adverbial elements which "have in general a lesser role than the other sentence elements; they have for example less independence both semantically and grammatically and in some respects are subordinate to one or other of the sentence elements" (Quirk et al. 1985: 613).

(33)   ELLA-WOODWARD: – *you want to add your canned tomatoes*. MATT-
        LAUER# *Okay. Canned tomatoes. ELLA-WOODWARD: Your black beans.*
        MATT-LAUER: Right. And these are canned also **obviously**. ELLA-WOOD-
        WARD: *Those are canned also. Some apple cider vinegar.*

[COCA, SPOK: NBC, 2015]

These uses have been characterized as 'bonding' by Simon-Vandenbergen and
Aijmer (2007).

2.3 Reportative evidentiality

Reportative evidentiality pertains to the indirect evidential domain, and indi-
cates the S/W's access to the evidence mediated by an external source, where
the original S/W's perspective is lost, and there is no referential mention of this
external source (cf. Chojnicka 2012; Marín-Arrese 2013). In most classifications
of evidentiality, the information or evidence communicated may correspond to
the category termed Quotative, which involves "reported information with an
overt reference to the quoted information", or the category Hearsay, for "report-
ed information with no reference to whom it was reported by" (Aikhenvald
2004: 367). However, the classification of the Quotative as evidential has be-
come rather obsolete, and may give rise to ambiguity or indeterminacy, since
this category would best be considered within speech representation. In this
respect Chojnicka (2012) has convincingly argued for the distinction between
reportative evidentiality and speech representation in terms of the dimensions
of 'speaker perspective' and 'source realization' (see chapter on Spanish).

The markers found most often involve auditory perception verbs (*I hear
that*), verbs of communication (*they say, it is said*), as well as sentence adverbs
(*allegedly, reportedly, supposedly*). Cases of meaning extension of markers
which evoke appearance and are typically found as inferential evidentials in-
clude verbs of appearance (*appear, seem*) and sentence adverbs (*apparently,
seemingly*). A case apart is the reportative evidential marker *according to*, which
allows for the explicit designation of the original source with the prepositional
object position (*according to X*), and where the perspective point of the original
S/W is present, and the source is mentioned though it is defocused to a non-
Subject role (cf. Marín-Arrese 2017b).

2.3.1 Markers derived from SAY-verbs

In markers derived from SAY-verbs, the primary authorial voice evokes an external voice as source. This backgrounded external voice may be evoked by 'genericization' in impersonal constructions (*they say*) as a non-specific source, or implicit through passivization (*it is said/alleged/reported*); cf. Marín-Arrese (2017b).

(34) *It was in this heightened atmosphere that the notorious 45-minute claim and other intelligence purporting to show that Iraq was continuing to produce chemical and biological weapons was passed on to Downing Street without being properly examined by the intelligence officers best placed to assess it. Much of this **is** now **said** <IRE> to have been withdrawn, although ministers have yet to correct the parliamentary record.* [CESJD-EOG]

In using these forms of backgrounding of the original source, S/Ws may either adopt a neutral position in terms of alignment with the original voices, or else position themselves in disalignment with them (DuBois 2007). As Aikhenvald (2014: 12), observes, "[i]n English, 'they say' may imply that the speaker does not really believe what is being reported".

2.3.2 Markers derived from SEEM-verbs and THINK-verbs

Perceptual evidential expressions are also subject to extensions within the subdomain of indirect justification or indirect evidence. Both inferential and reportative functions are found for the following verbs of appearance in English: *appear, seem*.

(35) *Kohlgate was the name attached to the party financing scandal which erupted last year when the former Chancellor admitted taking £600,000 in illegal party donations. **It** now **appears** <IRE> that the criminal case against Herr Kohl will be shelved if he pays a fine of about £100,000.*
[CESJD-ENT]

As Wiemer (2010: 105) notes, this phenomenon is common to other Germanic and Romance languages, where the 3SG form of the present indicative of "SEEM-verbs highlights a reportative function only when it loses its dependency relations with a host sentence, i.e., when it becomes petrified as a particle viz. parenthetical". However, in English, SEEM-verbs need not comply with the above-

stated condition in order to evolve a reportative shade of meaning, as the following example shows.

(36)   *Precisely what happened is not clear, as* <u>*chronicle accounts vary*</u>*, but **it seems** <IRE> that Tany and his men advanced inland some distance, and then returned to the bridge of boats.*   [BNC]

Meaning extensions from the domain of cognition to the domain of social communication, and thence to a reportative use, are found in expressions such as *is believed/thought/supposed*.

(37)   *We don't understand why they were so intent on killing us. We weren't communist, all we did was support the Republic", Mrs Gonzalez said. About 35,000 people **are believed** <IRE> to have died this way, without trial or after rapid, meaningless courts martial. Up to now nobody has paid attention to any but the most famous victims.*   [CESJD-ENG]

2.3.3 Reportative sentence adverbs: *allegedly, reportedly, supposedly*

Sentence adverbs like *allegedly* and *reportedly* consistently carry a reportative value. The meaning of *allegedly* is described in *Macmillan's English Dictionary for Advanced Learners* (2002) as follows: "if someone allegedly does something, another person says that they have done it, even though it has not been proved". In a similar way, the *Merriam Webster Dictionary*[7] characterizes *allegedly* as "said to have happened but not yet proven". The *Macmillan* Dictionary defines *reportedly* in a similar fashion: "used for showing that you are not certain that something you are reporting is true". The adverb *supposedly* is defined by the *OED Online* in the following terms: "**1.** According to belief, but without conclusive evidence and perhaps mistakenly; as is (or was) supposed; by way of supposition. 2. As a pretence, by way of feigning."

According to these definitions, these adverbs may be characterized by the following two features: (a) Reportative: evidence comes from linguistic messages; (b) Non-conclusive: the evidence does not lead to the conclusion that the proposition is true. In Celle's (2009: 280) words, "these adverbs signal the speaker's lack of commitment to what s/he is saying". Also, as Ruskan (2015: 4) observes, "the English adverbials *reportedly*, *allegedly* and *supposedly* do not

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7 http://www.merriam-webster.com/dictionary/alleged, accessed December 20, 2014.

express the author's epistemic judgment but mark distance from the original sources of information or propositional content (Celle 2009: 289)".

With regard to this last factor, it is worth pointing out that both adverbs, *allegedly* and *reportedly*, are frequently found within contexts of contrast with another proposition stated as true, where these adverbs signal some aspect of the information or evidence is simply reported and non-conclusive. For example, in (38) the writer expresses total certainty that the two Iranian political refugees had been detained in Ankara, but provides non-conclusive reported evidence about their having been tortured.

(38) *In March representatives of the Office of the UN High Commissioner for Refugees were refused access to two Iranian political refugees who had been detained in Ankara and **allegedly** tortured.* [BNC]

The frequency of both adverbs in the BNC, specified in Table 1, shows that they are markedly more frequent in written than in spoken language, especially in the case of *reportedly*.

Table 1: Occurrence of *allegedly* and *reportedly* in the British National Corpus (raw numbers and frequency per million words).

REPTV ADVS	BNC-SPOKEN			BNC-WRITTEN
	N	F (pmw)	N	F (pmw)
allegedly	25	2.5	1,014	11.27
reportedly	1	0.1	1,450	16.11

Syntactically, *allegedly* and *reportedly* may have clausal and non-clausal scope. In the latter case, when they modify a given constituent of the clause, they may be regarded as 'focalizers' in the sense of Simon-Vandenbergen and Aijmer (2007), as in the following example, where the scope of *allegedly* only covers 'to his surprise', while the truth of the rest of the proposition (that Weinberger found himself arguing against the policy again) is not questioned.

(39) *Weinberger found himself, **allegedly** to his surprise, arguing against the policy again.* [BNC]

The conceptual scope of *allegedly*, however, is still propositional, following Boye's (2010, 2012) account of evidential meanings as "all conceptually dependent on a *proposition*, as opposed to a *state of affairs* and a *speech act*" (Boye 2010: 291, original italics). In (39), the proposition under the scope of *allegedly*

could be stated as 'Weinberger's finding himself arguing against the policy again was to his surprise' (see also Celle 2009: 271–272).

These adverbs are often found as parentheticals, and they show a clear predominance for medial position, as Celle's (2009: 273) quantitative analysis of their occurrences in parliamentary debates and journalistic discourse shows.

(40)   *The new Army Commander, Gen. Vimol Wongwanich, promised to unify the Army and on Aug. 7 ordered commanders of all army units not to intervene in politics or do anything to help or hinder any political party. Vimol was, reportedly, well regarded within the military, with a reputation for professionalism and integrity.*   [BNC]

Like the other sentential adverbs discussed above, they cannot be modified (**very allegedly*; Celle 2009: 274), nor can they fall under the scope of negation, but rather they can scope over negation:

(41)   *The recording was made in a Hamburg nightclub on a portable tape recorder by audience member Edward W Taylor. Taylor, now a butcher in Liverpool, has admitted he never requested, or received permission to make the recording. However, an American party acquired the tape in the late '70s and licensed it to Sony last summer. Sony are* **allegedly** *not paying royalties to the Beatles, and refuse to withdraw the album.*   [BNC]

The meaning of the two adverbs indicates the existence of a source of evidence for the validity of the proposition consisting of one or more spoken or written linguistic messages, which may or may not be referred to explicitly in the neighboring linguistic context. In this respect, *allegedly* and *reportedly* differ in two ways according to Celle (2009: 285):

> Firstly, *allegedly* specifies that the speaker refuses to commit himself/herself to the truth of the proposition, while there is simply no speaker's commitment with *reportedly*. Secondly, *reportedly* indicates speech attribution, even if the source is unidentified, while *allegedly* does not necessarily imply an assertive source, hearsay serving as a fictitious pretext in a number of cases.

Concerning the second difference, since the meaning of *allegedly* typically indicates that the evidential qualification is based on hearsay or rumor, it may be argued that in the cases of "fictitious pretext", i.e., if *allegedly* is used to qualify a proposition whose truth the S/W knows is in violation of Grice's (1989: 26)

Maxim of Quality, the S/W is presumably using it as a face-saving device or for other reasons.[8]

In certain cases, the S/W seems to take a neutral standpoint (42), the result being close to a total lack of commitment. Nevertheless, the linguistic context often provides hints about the S/W's degree of commitment to the validity of the proposition. Not surprisingly, *reportedly* is more prone to hint the S/W's belief in the validity of the proposition, as in (43):

(42) *THE long police siege at an Aberdeenshire cottage ended peacefully yesterday afternoon — more than 40 hours after an oilman had locked himself inside his home,* **allegedly** *in possession of a shotgun. Brian Say, 44, had been allowed to sleep undisturbed during the night at his home at Craigmuir Croft, in the small village of Ythanbank, near Ellon. A dialogue with trained police negotiators resumed at 8am.* [BNC]

(43) *The company says video or a maximum 640 x 480 pixel rectangular region of the screen can be sent in near real time. Users can* **reportedly** *adjust frame speed, image quality and window size, giving them control over how much data is sent over the network.* [BNC]

In general terms, we observe that *allegedly* points to hearsay evidence while *reportedly* points to (spoken or written) reports that provide evidence. It is not surprising, therefore, that *reportedly* is more often found to qualify reports that require accuracy, such as those including quantitative data (44). On the other hand, *allegedly* is more readily associated with common sayings or beliefs (45).

(44) *The floods were brought on by three days of continuous torrential rains in the north which had begun on Sept. 8, and spread quickly through parts of the Punjab and Sind, threatening sites of historic interest, engulfing thousands of villages and inundating vast acres of cropland. In Punjab, the worst affected province, more than 1,700,000 hectares of agricultural land were* **reportedly** *affected and 20-50 per cent of the country's partially harvested cotton crop, its main foreign exchange earner, was destroyed.* [BNC]

(45) *It is not easy for parents (and indeed, other caregivers) to know when, how, and how much to discipline. They need to be tough minded as well as lovingly tender and to know when to 'change gear' from one to the other. This*

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8 This behavior also occurs with epistemic expressions of non-total certainty, as in *I probably made a mistake* uttered when it is easy to infer that the S/W knows that s/he made a mistake. These cases do not invalidate the semantic characterization of *probably* as expressing less than total certainty.

> *is particularly the case in applying discipline to adolescents. Care and con-*
> *trol are the issues where the **allegedly** 'terrible teens' provide such a*
> *daunting challenge. Adolescents are thought of (and often rightly) as disci-*
> *plinary headaches to their parents. Perhaps you are one of those parents*
> *who await their child's approaching puberty with apprehension.*   [BNC]

This tendency agrees with the fact that *reportedly* occurs more frequently when the source of the report is explicitly mentioned in the co-text, as in the case of 'the tale goes' in the following example:

(46)   *IBM PERSONNEL IN A FLAP <u>The tale goes</u> that a little while back, IBM*
       *Corp was using street names, **reportedly** from the Palo Alto town map, as*
       its product code names — Sierra, Summit perhaps — and had been carefully
       working up the map, so that all you had to do to put a top IBMer into a real
       flap was to pick a name from the map a couple of streets up from the most
       recent one you'd heard of and ask how that product was coming along.
                                                                            [BNC]

In other occurrences of the two adverbs, the source of the report is not explicit, but information about it is provided by means of conversational implicature. In certain cases, the source is clearly a participant in the situation expressed by the clause, often the agent, as in (47), where the 'institutional mind' alleges to act on behalf of society and the majority of the population (or, in more concrete terms, the police).

(47)   *As Crick (1976: 123) has argued, "criminology (like anthropology), is large-*
       ly concerned with systems of classification". In consequence, police modes
       of thought build up into classifiable systems of praxis which are the prod-
       uct of dealing with the extremes of social experience. These in turn become
       massively overdetermined, regenerative and self-justifying, creating an in-
       *stitutional mind which, although **allegedly** acting on behalf of society and*
       the majority population, comes to regard that same group as outsiders and
       potential antagonists who are never to be accorded easy access to the pro-
       cesses of the organization.   [BNC]

Allegedly and *reportedly* occasionally occur with words or short expressions presented as literally quoted from the original source (which may be specified or not). *Reportedly* may even occur with quoted stretches of some length:

(48)   *In essence, what was envisaged was the construction of internal manage-*
       ment systems around the hierarchical command structures characteristic
       of government departments (see Chapter 2). By 1984 every department had
       ***reportedly** "taken steps to introduce a top management system for Minis-*

ters and senior managers', enabling these 'to review regularly the depart-
ment's aims, examine its 'businesses' and the 'customers' they serve, set
objectives, and establish priorities" (Progress in Financial Management in
Government Departments, 1984, p. 3). [BNC]

These adverbs take on an epistemic implication of lack of total certainty. As
mentioned above, *allegedly* and *reportedly* were characterized as signaling non-
conclusive evidence and express lack of S/W's commitment to the validity of the
proposition. Celle (2009) considers them as 'disassertive', in that the S/W dis-
claims responsibility for the information that s/he is transmitting. This is clearly
the case with the adverb *supposedly,* which exemplifies with Celle's (2009: 287)
statement that *supposedly* is "used when saying what many people say or be-
lieve is true, especially when you disagree with them":

(49) **Supposedly** <IRE> *a parent told the sheriff in town that one of the young*
men had threatened his son and had explosives. And apparently nothing
was done about it. And I don't know if all these stories are true, but I think
clearly information had leaked out and people didn't make much of it and
didn't report it and didn't follow it up. [COCA, SPOK.]

The adverb *supposedly* is most frequently found in contexts that express skepti-
cism about the validity of the information transmitted:

(50) *There are a hundred places I could go next to investigate Capone ties. He*
supposedly <IRE> *financed a hotel in Ensenada and drank at Hussong's, a*
cantina with a peanut-shell floor and a legitimate claim on having invented
the margarita. A bar in Mexicali's Chinatown claims to be connected to an
underground tunnel network that was apparently subject to a shared-use
agreement between Capone and the Chinese mafia to shuttle booze under
the border. The list goes on. But I'm tired of chasing ghosts and whispers. I
abandon my Capone hunt and turn down a dusty country road, heading
toward the Guadalupe [COCA, NEWS: Washington Post, 2015]

2.3.4 *according to*

The unit *according to*, typically found with a reportative value, is a complex
preposition which takes as complement either a noun phrase, explicitly desig-
nating the source of the information, or a nominal clause. The *Merriam-Webster
Dictionary* gives the following meanings for *according to*: (i) in conformity with,
(ii) as stated or attested by, and (iii) depending on. The second meaning of *ac-*

cording to would correspond to its evidential reportative use. When it is used as an evidential, the resulting prepositional phrase scopes over a proposition, which may be expressed by means of a complete clause or of a unit of a lower rank, in which case part of the proposition is implicit, as in the following example '(she was) a miracle of nature':

(51) *Like Elizabeth too she had red hair, but unlike her cousin she was some six feet tall, towering majestically over most men, with a narrow face, high brow and broodingly sensual eyes – 'a miracle of nature',* **according to** *an Italian visitor to her court.*   [BNC]

Like *allegedly* and *reportedly*, *according to* can occur with words or short expressions presented as literally quoted from the original source:

(52) *Think of the prospect of John Major lining up at the London Marathon, or Neil Kinnock limbering up before taking to the squash courts. Worse still, imagine Margaret Thatcher preparing for a dip. Paddy Ashdown, on the other hand, is said to be one of the fittest MPs at Westminster but* **according to** *his camp, 'he likes to keep his fitness regime out of the headlines'.*
                                                                          [BNC]

In contrast with *allegedly* and *reportedly*, with *according to* the source of the evidence is cited explicitly. The source may be a document or report as in (53), or, more rarely, hearsay or common beliefs (54).

(53) **According to** *1986 Treasury figures, in 1985 per capita health and personal social service expenditure for those age 75 and over was £1,340 compared with £530 for those aged 65201374 and £305 for the population as a whole (HM Treasury, 1986). They occupy about 50 per cent of all hospital beds.*   [BNC]

(54) *Although most of the Mondays managed to knuckle down to a daily routine, rather than the usual blurred, night-time slog, stories continued to filter back to Britain that it wasn't all hunky-dory in paradise.* **According to** *hearsay, Bez had managed to break his arm – twice; Shaun was there in body but his head was elsewhere; and there were persistent rumours of rifts between the pair and the rest of the band, who just wanted to get their heads down and get on with work rather than get on one.*   [BNC]

Concerning negation, *according to* functions like sentential adverbs in that it falls outside the scope of negation. In examples like the following, where the negative particle precedes *according to*, we may interpret it as involving the negation of the ellipted proposition, not of the particle:

(55)   *On 25 August 1945 the Emperor Bao Dai had abdicated. At the point of a gun, says one author but not ['at the point of a gun'] **according to** Bao Dai himself. 'The people', he said, 'possess a very sure instinct which, in historic hours, conducts them towards those whose mission it is to guide them. [...]'*   [BNC]

In addition to its basic reportative uses, we may also find cases where *according to* expresses inferential meaning based on perceptual evidence as in (56), or inference triggered by communication-based evidence (57):

(56)   *They thought they were replanting authentic Christianity in the vineyard of the Lord, that is, in the same European Christendom which, they believed, had been devastated by the medieval church. Its clergy, **according to** <u>the painting</u>, were unfaithful laborers who had practically destroyed the vineyard and eradicated the faith. The reformers, by contrast, were faithful laborers who had recovered genuine Christianity from the original sources and restored the vineyard to productivity*
        [From: Scott H. Hendrix (2004). *Recultivating the Vineyard. The Reformation Agendas of Christianization*. Louisville, Kentucky: Westminster John Knox Press]

(57)   *The real search can't begin until we find out what sort of kidnappers we're dealing with. For the moment -for all we know- they could be a couple of amateurs from this village who've got the girl hidden ten minutes from here. So we search here. And at least we'll find the girls' car because **according to** <u>what one can make out of her statement</u>, they were removed from it somewhere on the road between here and Taverna yesterday morning...*   [BNC]

Table 2 shows the frequency of *according to* in the BNC. As can be seen, it is much more frequent than *allegedly* and *reportedly* (see Table 1), and, like these adverbs, it is strongly associated with the written language, for which the relative frequency is more than four times that for spoken language. It must be noted that the meaning distinctions have been ignored, so that non-evidential cases are also included in the counts.

Table 2: Frequency of *according to* in the British National Corpus (raw numbers and frequency per million words).

	BNC SPOKEN			BNC WRITTEN
N	F (pmw)	N	F (pmw)
391	39.1	15180	168.67

As regards the question of epistemic conversational implicatures, *according to* expresses mediated evidentiality with no epistemic component. However, the S/W may communicate his/her degree of commitment to the truth of the proposition by means of conversational implicature, depending mainly on the reliability of the source of the evidence. Notice the difference between the S/W's high degree of commitment in the evidential use in (58) and the skepticism of the use in (59):

(58)   *Now, some of Britain's rarest birds have had their best breeding season on record this summer. **According to** figures published by the Royal Society for the Protection of Birds, the long hot spell over the summer meant that more birds of prey came to our shores than at any time since the eighteen nineties.*   [BNC]

(59)   *Modi's elder brother, Emanuele the politician, who visited Paris some time during 1914, knew all about the affair. **According to** him Beatrice was so jealous that she locked Modi up in the cottage to keep him from going off with other women. Whatever the truth of it, by the end of the year Modigliani seems to have turned away from the brawling and tension.*   [BNC]

The stance of the S/W towards the communicated information will naturally vary depending on the purported authority and/or social standing of the source, what White (2006: 64) has termed 'evidential standing'. But the S/W may choose to display lack of alignment with the source; as Marín-Arrese (2011: 44) notes, the use of this unit is "a mechanism frequently used in journalistic discourse whereby the speaker/writer frames the proposition as highly warrantable, and at the same time avoids taking responsibility for the information or assessment".

2.4 Inferential and reportative uses: multifunctionality of *apparently, seemingly and supposedly*

The adverb *apparently* is found with both inferential and reportative meanings, as in examples (60) and (61), though the latter use is by far the most frequent in both spoken and written discourse (Marín-Arrese 2015: 221):

(60)   *Now turn to Europe. A section of the Spanish electorate has **apparently** <IIE> decided that the appropriate response to the murder of 200 of their fellow citizens is to ask what their Government might have done to provoke this outrage. This is a stance that smacks of weakness, not defiance.*

[CESJC-EOT]

(61)   *According to intelligence briefings, his was the hand that cut Pearl's throat, a murder for which the British-born militant Omar Saeed Sheikh has already been sentenced to death in Pakistan. The story of Sheikh's "arrest" was also clouded with inconsistencies. He had been involved in a string of terrorist acts and had served time in an Indian jail. He was released in a hostage swap, returned to Pakistan and **apparently** <IRE> continued his activities without undue interference from Pakistani intelligence.*   [CESJC-EOG]

Reportative uses, as in (62), are relatively frequent for *seemingly*. In this respect, the meaning extension of *seemingly* appears to behave similarly to other evidential expressions invoking appearance.

(62)   *In Texas, Mr. Rove has **seemingly** <IRE> made few mistakes. Mr. McDonald and other consultants noted that when Mr. Rove set up shop in Austin two decades ago, Democrats held the lion's share of statewide offices. # Now, Republicans do, " and they're all Karl's candidates, " Mr. McDonald said, ...*   [COCA, NEWS]

In a study on evidential sentence adverbs, Carretero et al. (2017: 51) found the following results for inferential and reportative values for these adverbs, which are shown below in Table 3. As can be seen, *supposedly* is similar in usage to *apparently*, both distinctly favoring reportative uses, though some marginal uses with an indirect inferential reading can also be found, as in (63):

(63)   *... it looks like receiver Ralph Janvey is cashing in on the Stanford Financial investors. He will get his $27.5 million for 14 weeks, according to the story. He is burning cash at the rate of $2 million per week. Not bad. That means he **supposedly** <IIE> has 25 lawyers working full time at $400 per hour to eat up that much cash.*   [COCA, NEWS: Houston Chronicle, 2009]

Table 3: Inferential and Reportative values of *apparently*, *seemingly* and *supposedly*.

ENGLISH	COCA Spoken				COCA Newspapers			
	IIE	IRE	NE	Total	IIE	IRE	NE	Total
apparently	2	48	0	50	4	46	0	50
	4%	96%			8%	92%		
seemingly	28	21	1	50	31	14	5	50
	56%	42%	2%		62%	28%	10%	
supposedly	2	42	6	50	4	42	4	50
	4%	84%	12%		8%	84%	8%	

Adverbs of medium and low reliability are more associated with reportative evidentiality, since they commonly mark the information as originating from external voices (report or hearsay), and in so doing they indicate a lack of commitment or a distancing effect on the part of the S/W.

2.5 Further items and issues

There is a grammatical construction found in a few Germanic languages, namely in English, Dutch and Danish, which is referred to by a term used in Latin grammar as *Nominativus cum Infinitivo* or evidential NCI (Noël and Colleman 2010), as well as "evidential passive matrices of English infinitival complement clauses" (Noël 2001), e.g.:

(64) *"Not only **are** some birds **known to detect** infrasound, but one species has been shown to produce infrasonic calls. (FEV 1108)"* [Noël 2001: 278]

Noël and Colleman (2010) claim that in English, there has been "a steady increase in the range of verbs that could enter the pattern ever since its introduction into the language", and its frequency actually doubled in the 19th century (Noël 2002: 185). The Dutch pattern however "stopped expanding in the 18th century", and the given construction is marginal in present-day Dutch mainly with deontic meaning (Noël and Colleman 2010). In Danish, as Ørsnes (2011: 31) observes, the function of reportative passives "is to attribute a piece of information to a source external to the speaker or in addition to the speaker".

The most common matrix verbs found in the "evidential NCI construction" in English are communication, cognitive and perception verbs, namely the expressions *be believed to, be claimed to, be considered to, be deemed to, be estimated to, be felt to, be found to, be held to, be known to, be reported to, be seen to, be shown to* (Noël and Colleman 2010: 160). Consider the following example, where the NCI construction with the matrix verb *say* is used to code hearsay:

(65) *AMERICAN ring doughnuts from The Delicious Donut Co are made from a flour which **is said to give** them a light, fluffy, and non-greasy consistency.* (BNC A0C 1141) [Noël and Colleman 2010: 160]

2.6 Remarks on diachrony

The development of evidentials in English presents a similar pattern to the diachronic development of evidentials in other languages described in this volume. In most cases, non-evidential elements which derive evidential meanings are

adverbs of manner and constructions with verbs of perception, belief or communication: SEE-verbs, SEEM-expressions, THINK-expressions and SAY-expressions. Evidential uses of modal elements have typically followed a path from root modals to the acquisition of epistemic and evidential values through inference and inter/subjectification of meaning (Langacker 2003; Boye 2012). The development of these polysemies involves a diachronic process of inter/subjectification in the sense of Traugott (1995, 2010), which pertains to speaker/writer's attitude towards the content of the communicated proposition, and attention to sharing evidence or bringing it to the addressee's attention (Whitt 2011).

In their diachronic study of the English verbs of appearance, Gisborne and Holmes (2007: 26) claim that these verbs have undergone processes involving an increase in their syntactic complexity triggered by the acquisition of propositional arguments and semantic bleaching, leading to the development of inferential senses. According to the respective entries in the *Oxford English Dictionary* (OED), the three SEEM-verbs have evolved from verbs related to the domain of appearance or perception:

(i) *Appear*:

Forms[9]: "ME–15 **apere**, ME **apeer(e**, 15–16 **apear(e**; ME **appeere**, **appiere**, ME–15 **apper(e**, 15–16 **appeare**, 15 **appear**."

Etymology: "<*aper-*, tonic stem (compare present subjunctive *apere*) of Old French *apar-eir, -oir* <Latin *adpārēre, appārēre* to appear, <*ad* to + *pārēre* to come in sight, come forth. Subsequently with prefix Latinized, *appere*, and in the reformed spelling of 16th cent. *appear*".

(ii) *Look*:

Forms: "OE **loccia** (*Northumbrian*, in prefixed forms), [...], ME **loc** (imperative), lOE **lochian**, eME **iloke** (past participle), [...] ME **loce**, ME **lok** (past tense), ME **lok**, ME **lokeand** (present participle), [...]."

Etymology: "Cognate with Old Saxon *lōkon*, Middle Dutch *loeken*, and probably Early Runic *lokom*, 1st singular or plural present indicative or 1st plural present optative (Weser estuary; 5th cent.) < the same Germanic base as Old High German *luogēn* to look furtively, to peek (Middle High German *luogen*, *lūgen*, German *lugen*: see note), further etymology unknown".

(iii) *Seem*:

Forms: "ME **sem**, ME–15 **seme**, ME **syme**, **sieme**, ME–16 **seeme**, ME **ceme**, [...] ME– **seem**; *past tense* ME, 15 **semde**, [...]."

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9 Abbreviations: ME (Middle English), OE (Old English), lOE (late Old English).

Etymology: "Middle English *sēme*, < Old Norse *sǿma* (modern Icelandic *sǽma* to honor, conform to, Middle Swedish *söma* to befit, beseem, Danish *sømme* reflexive to beseem), < *søm-r* (< prehistoric **sōmi-*) fitting, seemly; compare the cognate Old Norse *sóma* (past tense subjunctive *sǿmðe*) to beseem, befit".

The OED entry for *appear* gives the following as the first attested cases of the *appear-that* construction with the meaning of being evident, the verb *appear* with an inferential meaning, or the reportative use in a parenthetical constructions:

(66) a. (*c*1374) Chaucer tr. Boethius De Consol. Philos. v. iv. 162: *Þat **it may apere þat** þe prescience is signe of þis necessite.*
          '[So t]hat it may **appear** (= we could conclude) that the prescience is the sign of this necessity.'

     b. (a1616) Shakespeare Merry Wives of Windsor (1623) iii. i. 67 Page.: *Hee's the man should fight with him...* Shal. ***It appeares** so by his weapons.*
          Page [to Shallow]: 'I warrant you, he's the man who should fight with him [...] Shallow: **It appears** so by his weapons.'

     c. (1812) H. Davy Elements Chem. Philos. 5: *Theophrastus did not, **it appears**, adopt the sublime doctrines of his master.*

The OED entry for *look* provides the following as some of the earliest attested cases of *look + as/as if* or *look + like*, with a meaning of 'having the appearance that something is the case':

(67) a. (*c*1400 (?*a*1300)) Kyng Alisaunder (Laud) (1952) l. 1092 (MED): *Jn herte he gynneþ fecche mood And **lokeþ** as he were wood.*
          'In [his] heart he begins to gather anger and **looks** as if he was mad (furious).'

     b. (1655) Bp. J. Taylor Vnum Necessarium Ep. Ded. A5: ***It looks** as if men had no designe in the world, but to be suffered to die quietly.*
          '**It looks** as if men had no designs in the world, but to undergo death quietly.'

     c. (?1746) T. Sheridan Brave Irishman I. ii. 11: Capt. *May be he has a mind to put the Front upon me.* Cheat. ***It looks** like it, very like it, Captain.*
          'Captain: Maybe he has a mind to (intends) to put up a front (take on a false or deceptive appearance) for me. Cheat: **It looks** like it, very like it, Captain.'

According to the entry for *seem, v.2*, in the OED, the oldest attested cases of the impersonal use with a meaning of appearance, the parenthetical use with a reportative value, and of the *seem-that*-S construction with an inferential value would be the following:

(68) a.   (*a*1225) St. Marher. 5: *Lauerd. salue me mine wunden þat hit ne* **sem** *nowðer ne suteli omi samblant þat ich derf drehe.*
'Lord, salve my wounds so that it will nowhere **seem** in my appearance that I suffer grievously.'

b.   (1377) Langland Piers Plowman B. xviii. 117: *Her suster,* **as it semed,** *cam softly walkynge.*
'Her sister, as **it seemed**, came softly walking.'

c.   (*c*1386) Chaucer, Melibeus 355: *And al be it so þat* **it seme that** *thou art in siker place, yet shaltow alwey do thy diligence in kepynge of thy persone.*
'And although **it seems** that you are in a secure place, yet you shall always exert yourself in guarding your person.'

(iv)   *See*:
Forms[10]: "eOE **sean** (*Mercian*, in prefixed forms), eOE **sian** (*Mercian*, in prefixed forms), OE **sea** (*Northumbrian*), OE **sion** (in prefixed forms), OE (ME chiefly *south-west midlands*) **seon**, eME **soe**, eME **son** (*south-west midlands*) [...], ME **sen**, ME **seo** (chiefly *south-west midlands*), ME **seone** (*west midlands*), [...]."
Etymology: "Cognate with Old Frisian *siā*, *siān*, *siēn* (West Frisian *sjen*), Old Dutch *sian* (Middle Dutch *sien*, *zien*, Dutch *zien*), Old Saxon *sehan* (Middle Low German *sēn*, *sien*), Old High German *sehan* (Middle High German, German *sehen*), Old Icelandic *sjá*, Old Swedish *sea* (Swedish *se*), Old Danish *sje*, *se* (Danish *se*), Gothic *saihwan*; further etymology uncertain".

According to the OED entry for the verb see, some of the most frequent meanings are related to S/W's personal understanding or recognition of a fact, often used parenthetically, and to have or gain insight or understanding, as in the examples in (69), and inferential perception-based or communication-based values, as in (70):

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10 Abbreviations: eOE (early Old English), eME (early Middle English).

(69) a. 1603 G. Johnson Disc. Trouble Eng. Church Amsterdam 85: *So far as **I see**, this place neither alloweth the one, nor condemneth the other.*
'As far as **I can see**, this place neither allows the one, nor condems the other.'

b. 1885 M. Holley *Sweet Cicely* v. 171. ***I can't see** through it, why drunkards and murderers are punished, and them that make 'em drink and murder go free.*
'**I can't understand** it, why drunkards and murderers are punished, and those that make them drink and murder go free.'

(70) a. (1566) W. Painter Palace of Pleasure I. xlvi. f. 262: *The Countesse **seing** him so pensife, sayde vnto him [etc.].*
'The Countess **seeing** him so pensive, said to him [etc.].'

b. (1737) Boston Gaz. 16 May: ***I See** by the last Gazette that our old Friend has publish'd a Vindication of himself.*
'**I see** from the last Gazette that our old fried has published a vindication of himself.'

There are no detailed studies devoted to the historical development of evidential sentence adverbs, such as *apparently*, *obviously* and *seemingly*. They are all derivational, formed from adjectives by adding the suffix *-ly*. According to the OED, the etymology for these adverbs is the following:

(i) *Apparently*: "< apparent adj. + *-ly* suffix < Old French *aparant, -ent* < Latin *appārēnt-em*, present participle of *appārēre* to come in sight: see *appear* n., and *-ant* suffix1, *-ent* suffix".

(ii) *Obviously*: "< obvious adj. + *-ly* suffix < classical Latin *obvius* presenting itself to the mind or senses, ready to hand, common, exposed or open (to), in the way (< *ob-* ob- prefix + *via* way: see via n.) + *-ous* suffix".

(iii) *Seemingly*: "< seeming adj. + *-ly* suffix < seem v.2 + *-ing* suffix (I. To be suitable, befit. II. To have a semblance or appearance)".

The following are some examples of these sentence adverbs in their earliest attested evidential readings, from the OED:

(71) a. (1846) J. Ryland in Life & Coo. J. Foster (1846) II. 107: *It has been remarked, and **apparently** with truth.*

b. (1816) Scott Antiquary III. vi. 140: *The last syllable, bog, is **obviously** a mere corruption of the Saxon Burgh.*

c. (1828) Scott *Fair Maid of Perth* xi, in Chron. Canongate 2nd Ser. I. 289: *The contending parties, **seemingly**, were partizans of Douglas, known by the cognizance of the Bloody Heart, and citizens of the town of Perth.*

Their present semantic-functional development might be regarded to be in line with the adverbialization process in language. According to Swan (1988, 1989) adverbialization is a gradual process; sentence adverbs derive mainly from word modifiers (manner adverbs and intensifiers) by undergoing both syntactic shift and semantic change towards more subjective and abstract meaning.

Data sources

Corpora

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Corpus of English and Spanish Journalistic Discourse (CESJD-JMA). Comparable corpus of journalistic texts (opinion columns, leading articles, and news reports) in English and Spanish, compiled by Marín-Arrese (2000-2010). The annotation system of the texts in the corpus is the following: ELG (English-Leading article-*The Guardian*), ELT (English-Leading article-*The Times),* EOG (English-Opinion column-*The Guardian),* EOT (English-Opinion column-*The Times),* ENG (English-News reports-*The Guardian),* ENT (English-News reports-*The Times)*.

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Tanja Mortelmans
3 Evidentiality in Dutch

3.1 Introduction

In this section, the main evidential markers in Dutch will be presented. Before we embark on their description, it must be noted that the domain of evidentiality in Dutch has not been studied extensively, which implies that there is not much literature to refer to. Exceptions include a number of studies which (only briefly) discuss the evidential (inferential and reportive) reading of the modal verb *moeten* (De Haan 2000; Nuyts 2004; Cornillie 2009; Mortelmans 2010, 2012; Olbertz and Honselaar 2017) and the reportive reading of the modal verb *zou* (De Haan 2001; Roels et al. 2007; Mortelmans 2009; Harmes 2017). The verbs of appearance *blijken*, *lijken* and *schijnen* have also been studied, albeit again rather cursorily (Sanders and Spooren 1996; De Haan 2007; Vliegen 2010, 2011a–b; Koring 2012; Mortelmans 2016, 2017; Poortvliet 2016). Van Bogaert and Colleman (2013; 2019) and Van Bogaert and Leuschner (2015) focus on the reportive particle *('t) schijnt* '(it) seems'. And, finally, Nuyts (2004) has paid some attention to evidential markers in Dutch in general, mainly from the perspective of their combinability with deontic and epistemic modal expressions.[1] For most of the markers presented in this chapter, however, systematic corpus-based analyses are lacking.

Apart from the apparent lack of in-depth studies, the existing ones seem to disagree with respect to some very fundamental issues. To give an example: Sanders and Spooren (1996) treat *schijnen* 'seem' on a par with the other verbs of appearance *lijken* 'seem' and *blijken* 'turn out, appear', as they "presuppose evidence which is directly manifest" (Sanders and Spooren 1996: 245), whereas Koring (2012: 876) views *schijnen* as a genuine reportive marker, since "the speaker has only indirect evidence for the embedded proposition in the form of hearsay evidence" (similarly also Vliegen 2011a: 133). Another example: whereas *lijken* 'seem' is regarded as a subjective (i.e. exclusively speaker-oriented) marker by Vliegen (2011a) and Nuyts (2004: 57), both Sanders and Spooren (1996: 246) and Koring (2012) describe *lijken* as non-subjective, "as it can include more members in the group for evaluation" (Koring 2012: 888). At least

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1 Apart from the markers that will be dealt with in this section (see Section 3.2), Nuyts (2004: 16) also includes evidential predicative adjectives (e.g. *evident* 'evident', *plausibel* 'plausible', *aannemelijk* 'likely'), full verbs (e.g. *horen* 'hear', *vernemen* 'learn, be told') and idiomatic expressions (e.g. *het ligt voor de hand* 'it is obvious').

two factors can be made responsible for these discrepancies. First, there is no common theoretical ground, so that authors can mean very different things when labelling a particular use as 'subjective' or '(in)direct'. And second, many of these verbs occur in different construction types, whereby particular evidential functions can be shown to be associated with particular constructional patterns. The verb *schijnen*, for instance, can express both inferential and reportive evidentiality in combination with a *te*-infinitive, whereas the impersonal complement construction *het schijnt dat* 'it seems that' invites reportive meaning only (the same holds for adverbial *naar het schijnt* 'as it seems'). This inhibits a straightforward and clear characterization of the evidential values of these verbs, since it is not so much the verb *an sich* which carries a particular evidential meaning, but rather the verb[2] in a particular construction type – whereby the variation with respect to construction types is notoriously high in the case of verbs of appearance (see Section 3.3.3).

A final introductory note concerns the possible variation between Belgian and Netherlandic Dutch, on the one hand, and variation qua medium (i.e. the difference between spoken and written language) and/or register (formal vs. colloquial), on the other. The corpora used for the present analysis include both spoken and written present-day material: systematic use is made of the Corpus of Spoken Dutch (*Corpus Gesproken Nederlands* (CGN)) and the so-called CONDIV[3]-corpus (for written Dutch), both of which allow us to make a distinction between Belgian and Netherlandic Dutch.[4] Such a distinction can be relevant. Van Bogaert and Colleman (2013), for instance, have convincingly shown that the Belgian Dutch particle *('t) schijnt* – as far as its development as well as its present-day usage is concerned – is clearly different from its Netherlandic Dutch counterpart *schijnt*. By the same token, the complement construction *het schijnt dat* is much more frequently used in Belgian spoken Dutch than in Netherlandic spoken Dutch (Mortelmans 2017). When relevant, medium, register and regional variation (between Belgian and Netherlandic Dutch) will be explicitly discussed. For reasons of space, however, no systematic distinction will be made in this chapter; instead we will focus on the use of evidential markers in what will be assumed to be the standard variety of Dutch.

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2 Verhagen (2019) discusses the so-called *inquit*-construction in Dutch, i.e. a schematic construction with evidential-like (reportive) meaning. In this case, evidentiality cannot be associated with a specific lexical expression, but is denoted by a basically syntactically defined construction (identifiable on the basis of the initial position of the reported clause, which is followed by the reporting clause).

3 For more information on the CONDIV-corpus, see Deygers et al. (2000).

4 In some cases, additional Google-searches were conducted.

3.2 Overview

There are no morphological means to code evidentiality in Dutch. The main evidential markers in Dutch are the modal verbs *moeten* 'must' and *zou* (etymologically related to the modal/future auxiliary *zullen* 'shall', but claimed to be an independent form in present-day Dutch by Harmes 2017) in combination with a bare infinitive, various construction types involving the verbs of appearance *schijnen*, *lijken* and *blijken*, and a number of sentence adverbs, of which *blijkbaar* and *kennelijk* (both meaning 'apparently, obviously, evidently') are the most important, i.e. most frequently used representatives. Apart from being used as copulae, the verbs of appearance *lijken*, *schijnen* and *blijken* can combine with a *te*-infinitive and with a complement clause introduced by either *dat* 'that' (in the case of *schijnen* and *blijken*) or *als(of)* 'as if' (in the case of *lijken*). They also occur in parenthetical (e.g., *(zo) schijnt het* 'so it seems') and adverbial (e.g., *naar het schijnt* 'as it seems') constructions and even as particles (*('t) schijnt* 'it seems', *blijkt* '(it) turns out').

Most of these markers are associated with both inferential and hearsay values (whereby the hearsay value is to be considered an extension of the original inferential meaning). On top of that, Dutch has a number of dedicated reportive markers (*het schijnt dat* 'it seems that', and the adverbials *naar verluidt* 'reportedly' *naar eigen zeggen* 'by one's own account'). The *zou* + INF construction is highly polyfunctional, as it expresses both non-factuality (in unreal conditionals for instance) and functions as an evidential hearsay marker (while it cannot express inferential evidentiality). Moreover, *zou* functions as a backshifted tense form of future *zullen* in contexts of indirect speech (*Ik zal komen* 'I will come' → *Ze zei dat ze zou komen* 'She said she would come').

Direct evidential values can be coded by verbs of perception like *zien* 'see' and *horen* 'hear', when used as complement taking predicates (1a) or in adverbial and parenthetical constructions (1b).

(1) a. *ik* **zie** **dat** *u*   *nog* *niet* *klaar*   *bent*
        I   see   COMP you still not   ready be.PRS.2SG
        met *het*   *ontbijt.*
        with ART.DEF.N breakfast
        'I **see that** you haven't finished breakfast yet.'
                                [CGN/comp-o/nl/fn001112.sea#fn001112.47]

    b. *Jan-Willem* *is*   *niet* *echt* *bruin* *geworden[...]*
        Jan-Willem be.PRS.3SG not   really brown become.PTCP
        zo **te** **zien.**
        so   to   see.INF

'**Ostensibly** Jan-Willem has not really tanned.'
[CGN/comp-a/nl/fn000263.sea#fn000263.198]

Interestingly, the verbs in these construction types can easily give rise to indirect evidential interpretations. The adverbial construction *zo te zien* 'so to see', for instance, can also be interpreted inferentially ('on the basis of visual evidence, the speaker infers y'), whereas parenthetical *hoor ik* 'I hear' in (2b) is most often interpreted reportively ('I was told').

(2) a. *ze   waren   [...] niet   dik   goed   gebouwd   en*
          they   be.PST.PL   not   fat   well   built   and
          zo   te   zien   in   een   uitstekend-e   conditie.
          so   to   see.INF in   ART.INDF.SG   excellent-SG.C condition
          'They were not fat, well-built and **appeared** to be in excellent condition.'   [CGN/comp-o/nl/fn001198.sea#fn001198.4]

     b. *Felix   **hoor   ik**   net   is   van   plan   zondag*
          Felix   hear.PRS.1SG I.NOM just   is   of   plan   Sunday
          te   komen
          to   come.INF
          'Felix – **I've** just **heard** – has the intention of coming on Sunday.'
          [CGN/comp-a/nl/fn008515.sea#fn008515.9]

In fact, it may in practice be rather difficult to decide whether we are dealing with direct evidentials or whether the construction expresses that the speaker actually infers something on the basis of perceptual evidence (cf. also de Hoop et al. 2018's discussion of parenthetical *hoor ik* in Dutch). This also holds for the sensory adjectives/adverbs[5] *zichtbaar* 'visible/visibly' and *hoorbaar* 'audible/audibly', which can refer to direct sensory evidence (3) or code an inference on the basis of such evidence (4).

(3) *en   toen   riep   hij   **hoorbaar**   voor*
     and   then   call.PST.SG he.NOM audibly   for
     iedereen   kom   eens   hier   schat
     everyone   come.IMP once   here   baby
     'And then he called out **audibly** for everyone come here baby.'
     [CGN/ comp-o/vl/fv800018.sea#fv800018.24]

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5 Dutch does not formally distinguish between adverbs and adjectives (at least not in their bare form).

(4) *maar hij was **zichtbaar** in de war.*
     but he.NOM be.PST.SG visibly in ART.DEF.SG.C confusion
     'But he was **visibly** confused.'

[CGN/comp-o/nl/fn001049.sea#fn001049.21]

Other adjectives/adverbs that are sometimes characterized as evidential, are
evident 'evident, obvious' and *duidelijk* 'clear' (cf. Nuyts 2004); they can enter
complement taking constructions (e.g. *het is evident dat* 'it is evident that'), be
used parenthetically (e.g. *dat is duidelijk* 'that is clear') and adverbially (*hij is
duidelijk ziek* 'he is clearly ill'). Their evidential status is controversial, though.
De Hoop et al. (2017) discuss *ik denk* 'I think' and *ik geloof* 'I believe' as markers
of so-called endophoric evidentiality (Plungian 2001), whereby "a direct per-
sonal inner state constitutes the source of information" (Jing-Schmidt and
Kapatsinski 2012: 348). In view of the strong epistemic contribution of such
expressions, however, we will not discuss them in this chapter.

In the remainder of this chapter, we will concentrate on inferential and
reportive evidential markers. It will become clear that Dutch has an interesting
inventory of dedicated reportive markers (consisting of both auxiliaries and
adverb(ial)s; see Section 3.4) in combination with a system of inferential mark-
ers whose meanings may extend into the reportive domain (see Section 3.3).

3.3 Inferential units

We will distinguish between inferential adverbs, modal verb constructions
(*moeten* 'must' + INF) and constructions featuring the verbs of appearance *lijken*,
schijnen and *blijken*. Interestingly, reportive extensions can be found in all three
categories.

3.3.1 Adverbs

3.3.1.1 The inferential adverbs *kennelijk, blijkbaar* and *klaarblijkelijk* 'apparently, obviously, evidently'

The main inferential adverbs in Dutch are *kennelijk*, *blijkbaar* and *klaarblijkelijk*,
which are remarkably similar in meaning and use. They are predominantly used
inferentially, whereby the evidence can be both perceivable as well as non-
immediately perceivable (i.e. more conceptual). So, in (5a), *kennelijk* is used in a
context in which the evidence is visible – the puddles are a visible result on the
basis of which the speaker infers that it has rained. Similarly, in (5b) the obser-

vation that the grass is wet, leads to the inference marked by *blijkbaar* that it has rained. And in (5c), *klaarblijkelijk* is used in a context in which the observable fact that everybody is covered with mud serves as input for the inference that it has rained.

(5) a.   *Het   heef-t   **kennelijk**   geregend,   want*
             it   have-PRS.3SG apparently rain.PTCP   because
             tussen   de   natt-e   klinker-s   van   de   steeg
             between ART.DEF wet-PL   brick-PL   of   ART.DEF.C alley
             op de   voorgrond   ligg-en   plass-en.
             on   ART.DEF.SG.C foreground lie-PRS.PL   puddle-PL
             '(The speaker comments on a picture) **Apparently/obviously** it has rained, because there are puddles between the wet bricks of the alley at the front.'   [http://www.spaarnestadphoto.nl/]

     b.   ***Blijkbaar**   heef-t   het   geregend,   want*
             apparently   have-PRS.3SG it   rain.PTCP   because
             het   gras   is   nat.
             ART.DEF.N grass   be.PRS.3SG   wet
             '**Apparently/obviously** it has rained, because the grass is wet.'
                       [http://www.quizlet.nl/chapters/569635/goed-op-weg/?show_mobile=1]

     c.   *Foto.   Vijf   vriend-en [...]   zijn   aan   het*
             foto   five   friend-PL   be.PRS.PL at   ART.DEF.N
             *wandelen in   de   natuur.   **Klaarblijkelijk***
             walk.INF in   ART.DEF.SG.C nature   apparently
             heef-t   het   geregend want   iedereen
             have-PRS.3SG it   rain.PTCP because everyone
             zit   onder   de   modder.
             sit.PRS.3SG under   ART.DEF.SG.C mud
             'Picture. Five friends are walking in nature. **Apparently/obviously** it has rained because everyone is covered with mud.'
        [http://commons.wikimedia.org/wiki/File:COLLECTIE_TROPENMUSEUM_ Wandeling_door_de_natuur_TMnr_60050355.jpg]

The following examples illustrate that the three adverbs can also code inferences based on non-perceivable evidence. In (6a), in which *kennelijk* is used, it is the (non-immediately visible) fact that a particular soccer game has been watched by more than 2 million people that gives rise to the inference that soccer is fun, whereas in (6b), the fact that no new objections have been raised against a particular proposal leads to the inference marked by *blijkbaar* that the

neighbours are satisfied. In example (6c), *klaarblijkelijk* marks an inference based on the non-observable (and in fact implicit) fact that the modem importer has not yet reacted.

(6) a. *Net als [...] Ajax-Croatia in Amsterdam, een*
   just like Ajax-Croatia in Amsterdam ART.INDF
   wedstrijd die 2.650.000 kijker-s trok.
   game REL 2.650.000 viewer-PL attract.PST.SG
   *Zo leuk is voetbal **kennelijk**.*
   so fun be.PRS.3SG football apparently
   'Just like Ajax-Croatia in Amsterdam, a game that attracted 2,650,000 viewers. So much fun is football **apparently**.'
   [CONDIV-NL, sport03.txt]

   b. *De omwonend-en zijn **blijkbaar***
   ART.DEF.PL resident-PL be.PRS.PL apparently
   tevreden over de aanpassing-en, want tegen
   satisfied regarding ART.DEF adjustment-PL because against
   het [...] voorstel zijn geen bezwar-en [...] ingediend.
   ART.DEF.SG.N proposal be.PRS.PL no objection-PL raise.PTCP
   '**Apparently**, the residents are satisfied with the adjustments, because no objections have been raised against the proposal.'
   [CONDIV-NL, nieuws04.txt]

   c. *Ik heb mijn modemimporteur al om*
   I.NOM have.PRS.1SG my modem importer already for
   hulp gemaild, maar die is niet al te
   help mail.PTCP but DEM be.PRS.3SG not all too
   *snel **klaarblijkelijk**.*
   quick apparently
   'I have mailed my modem importer for help, but he's not too quick **apparently**.' [CONDIV-NL, n_comp2.sml]

Reportive extensions can be found with all three adverbs (see ex. 7a, b, c), although they seem to be less frequent in the case of *kennelijk* (7a). This may be due to the fact that *kennelijk*, which is etymologically related to the verb *kennen* 'know' more strongly evokes the idea of strictly personal knowledge (cf. also Plungian 2001: 353, who views inferential evidence together with direct evidence as 'personal evidence', in contrast to mediated evidence). By contrast, the adverbs *blijkbaar* and *klaarblijkelijk* are derived from *blijken*, which can be used in a hearsay meaning (see Section 3.3.3.2). Note that in example (7c), reportive

zou marks reportive evidentiality as well; this seems to be a case of evidential concord.

(7)   a.   *Het   is   kennelijk   een   bekend   probleem*
             it   be.PRS.3SG   allegedly   ART.INDF   well-known   problem
             zo   las   ik   op   internet [...]
             so   read.PST.SG   I.NOM   on   internet
             '**Allegedly** it is a well-known problem, as I have read on the internet.'
             [http://www.onemorething.nl/community/topic/nieuwe-mail-geluid-opgelost]

       b.   *Ik   heb   ondertussen   contact   gehad   met   Humax*
             I.NOM   have   meanwhile   contact   have.PTCP   with   Humax
             en   het is   blijkbaar   een   bekend   probleem.
             and   it   be.PRS.3SG   apparently   ART.INDF   well-known problem
             'In the mean time I have had contact with Humax [a particular brand], and it is **allegedly** a well-known problem [i.e. that is what they have told me].'
             [http://www.kieskeurig.nl/digitale_decoder/product/282061-humax-irhd-5000c/vragen]

       c.   *Pyongyang   zou   klaarblijkelijk   een   nucleair-e*
             Pyongyang   shall.PST.SG   apparently   ART.INDF   nuclear.SG.C
             motor   in   een   tunnel   hebben   geplaatst,   die
             engine   in   ART.INDF   tunnel   have.INF   place.PTCP   REL
             zaterdagochtend   zou   gelanceerd   kunnen   worden,
             Saturday morning   shall.PST.SG   launch.PTCP   can.INF   PASS.INF
             klink-t   het op de   radiozender   'Voice of America'.
             sound-PRS.3SG   it   on   ART.DEF.SG.C   radio station   Voice of America
             'Pyongyang **is allegedly said** to have placed a nuclear engine in a tunnel, which could be launched on Saturday morning, it is said on the radio station 'Voice of America'.'
             [https://nieuws.vtm.be/buitenland/straks-nieuwe-test-noord-korea]

The main differences between the three sentence adverbs pertain to regional variation, on the one hand, and overall frequency, on the other (see Table 1). First, *kennelijk* is considerably less popular in Belgian Dutch, which has a very outspoken preference for *blijkbaar*, both in written and in spoken language. The dominance of *blijkbaar* in Belgian Dutch is particularly striking in the spoken CGN-corpus (normalized frequency: 22.8/100,000 words). Second, the overall frequency of *klaarblijkelijk* is much lower than that of the two other sentence adverbs.

Table 1: Absolute and normalized (/ 100 000 words) frequencies of *kennelijk*, *blijkbaar* and *klaarblijkelijk* in spoken and written Dutch.

	CONDIV-NL		CGN-NL		CONDIV-BE		CGN-BE	
	abs	**norm**	**abs**	**norm**	**abs**	**norm**	**abs**	**norm**
kennelijk	350	**7.3**	233	**4.1**	145	**1.1**	26	**0.8**
blijkbaar	195	**4.1**	297	**5.2**	1448	**11.3**	745	**22.8**
klaarblijkelijk	9	**0.2**	6	**0.1**	25	**0.2**	5	**0.1**

3.3.1.2 The inferential adverbs *schijnbaar* and *ogenschijnlijk* '1. only seemingly; 2. apparently'

The adverbs *schijnbaar* and *ogenschijnlijk* have (at least) two quite different meanings. They either refer to the fact that a particular state of affairs only seems to be the case, but in reality does not hold (as in 8a–b), a use that cannot be considered evidential.

(8) a. ***Schijnbaar*** *lijk-t*   *Moskou*   *op*   *ander-e* *grot-e*
        seemingly   resemble-PRS.3SG Moscow   on   other-PL   big-PL
        sted-en   *in*   *Europa,*   *maar* *in*   *de*   *realiteit*
        city-PL   in   Europe   but   in   ART.DEF.SG.C reality
        is   *alles*   *anders.*
        be.PRS.3SG   everything   different
        '**Seemingly** Moscow resembles other big cities in Europe, but in reality everything is different.'   [CONDIV-NL, varia09.txt]

     b. ***Ogenschijnlijk*** *respecteer-t*   *men*   *de*   *wet,*
        seemingly   respect-PRS.3SG one   ART.DEF.SG.C law
        maar *de*   *interpretatie* *ervan*   *gebeur-t*   *op*
        but   ART.DEF.SG.C interpretation of.it   happen-PRS.3SG   on
        basis *van* *ander-e* *overweging-en*
        basis   of   other-PL   consideration-PL
        '**On the face of it** one respects the law, but the interpretation of it rests on other considerations.'   [CONDIV-NL, div02.txt]

Alternatively, both adverbs are often used with inferential meaning:[6] in (9a), *schijnbaar* marks an inference based on perceptual evidence (the speaker sees a

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6 To avoid the non-factual reading often associated with *schijnbaar*, speakers can resort to the unambiguous adverb *blijkbaar*, as the following example illustrates.

flashing light and infers that something must have happened); in (9b) the speaker infers – on the basis of the fact that the fundamentalists are behaving differently as far as the military is concerned – that they do not feel invincible anymore.

(9) a. *d'r was **schijnbaar** iets gebeurd want in*
   there be.PST.SG apparently something happen.PTCP because in
   de verte zag ze een zwaailicht.
   ART.DEF.SG.C distance see.PST.SG she ART.INDF flashing light
   '**Apparently** something had happened, because she saw a flashing light in the distance.' [CGN/comp-a-nl/fn007956.sea#fn007956.132]

  b. (Regarding military the fundamentalists have changed their tune.)
   ***Ogenschijnlijk** voel-en ze zich niet meer*
   apparently feel-PRS.PL they REFL not anymore
   onoverwinnelijk [...]
   invincible
   '**Apparently** they don't feel invincible anymore.'

                 [CONDIV-NL, nie_s5.txt]

Reportive extensions are possible as well, as in the following examples (10a-b). Both represent cases of evidential concord, as the reportive meaning is marked twice: not only by the adverbial, but also by lexical means (*zo hoorde ik* 'so I heard' in ex. 10a) and by the prepositional phrase *volgens militaire bronnen* 'according to military sources' introduced by the source preposition *volgens* 'according to' in (10b).

(10) a. *zo hoor-de ik van de week dat er*
   so hear-PST.SG I.NOM of ART.DEF.SG.C week COMP there
   in Eindhoven een [...] grote nieuwe zaak geopend
   in Eindhoven ART.INDF big new business open.PTCP
   *is. de allergrootste van Nederland **schijnbaar**.*
   be.PRS.3SG ART.DEF.SG.C biggest of Holland allegedly
   'So I heard this week that in Eindhoven a big new store has been opened, **allegedly** the biggest one in Holland.'
        [CGN/comp-a/nl/fn007956.sea#fn007956.132]

(10) b. *Volgens militair-e bronn-en hebb-en de*
   according to military-PL source-PL have-PRS.PL ART.DEF.PL

(i) *in 't begin wel **schijnbaar** **blijkbaar**.*
  in ART.DEF.SG.N beginning really seemingly apparently
  'at least in the beginning **seemingly apparently**'   [CGN-BE]

> *Amerikan-en* **ogenschijnlijk** *grote* *schade* *toe<ge>bracht*
> American-PL allegedly big damage <PTCP>cause.PTCP
> *aan* *de* *Iraakse* *luchtafweer.*
> to ART.DEF.SG.C Iraqi air combat
> 'According to military sources, the Americans have **allegedly** caused
> major damage to Iraqi air combat.' [CONDIV-NL, nieuws06.txt]

With respect to their frequency, it is clear that both *schijnbaar* and *ogenschijnlijk* occur much less frequently than *kennelijk* and *blijkbaar*, both in Belgian and in Netherlandic Dutch, and both in the spoken and the written corpora, as Table 2 shows.

Table 2: Absolute and normalized (/ 100 000 words) frequencies of *schijnbaar* and *ogenschijnlijk* in spoken and written Dutch.

	CONDIV-NL		CGN-NL		CONDIV-BE		CGN-BE	
	abs	norm	abs	norm	abs	norm	abs	norm
schijnbaar	33	**0.7**	51	**0.9**	62	**0.5**	17	**0.5**
ogenschijnlijk	70	**1.5**	10	**0.2**	66	**0.5**	4	**0.1**

3.3.2 Inferential modal verb constructions: *moeten* + INF

The modal verb *moeten* 'must' in combination with a bare infinitive can have inferential meaning in Dutch. This reading is relatively rare, though, as can be deduced from Table 3: an analysis of a sample of 6,000 occurrences of *moeten* reveals that only 133 instances (2.2 %) carry inferential meaning. Deontic and dynamic readings of *moeten* clearly prevail. The analysis also shows that inferential readings of *moeten* occur somewhat more frequently in the written corpora (CONDIV-NL and CONDIV-BE) than in the spoken ones (CGN-NL and CGN-BE).

Interestingly, inferential *moeten* + INF seems to be preferentially used with particular types of inference. In contrast to the inferential adverbs discussed in Section 3.3.1, 'inferential' *moeten* + INF does not typically mark inferences based on perceptual, highly accessible evidence, but rather on more conceptual types of evidence that involve more abstract, typically logical forms of reasoning. On the basis of the corpus data, a number of typical *moeten* + INF-cases can be discerned.

Table 3: Frequency of inferential and reportive *moeten* in Dutch.

	CONDIV-NL (n: 1,000)	CONDIV-BE (n: 1,000)	CGN-NL (n: 2,000)	CGN-BE (n: 2,000)	total (n: 6,000)
moet[7]	47 inferential	40 inferential	27 inferential	19 inferential	133 inf
	0 reportive	0 reportive	0 reportive	5 reportive	5 reportive

First, the construction occurs in contexts in which the speaker concludes something with respect to the (emotional, cognitive) state of mind of someone else, often a fictitious character or someone she does not have immediate access to (because e.g. the person lived 200 years ago). What is inferred, is therefore typically non-verifiable. Clear examples are:

(11) a.   (I like to imagine that, how people were able to decipher their names for the first time.)
  Dat **moet** *als een overwinning ge-wees-t zijn.*
  that must.PRS.SG like ART.INDF victory PTCP-be-PTCP be.INF
  'That **must** have been like a victory.'   [CONDIV-NL, div02.txt]

  b.   (Hopkins hated the star-like airs of his colleagues, but also their lack of talent.)
  Doorgaans hield hij dat voor zich […] maar
  generally keep.PST.SG he.NOM that for REFL but
  hij **moet** *zich vaak geërgerd hebben, zoals*
  he.NOM must.PRS.SG REFL often annoy.PTCP have.INF as
  duidelijk word-t uit […] zijn besluit.
  clear become-PRS.3SG out.of POSS conclusion
  'He normally didn't show this, but he **must** have been annoyed often, as becomes clear from his conclusion.'   [CONDIV-NL, div04.txt]

  c.   *Valuas, de stichter van Venlo,* **moet**
  Valuas ART.DEF.SG.C founder of Venlo must.PRS.SG
  geweten hebben dat Funs van Grinsven werd
  know.PTCP have.INF COMP Funs van Grinsven become.PST.SG
  geboren anders had hij Venlo nooit gesticht.
  born otherwise have.PST.SG he.NOM Venlo never found.PTCP

---

7 Note that the CONDIV-corpus is not annotated, so that it has to be searched for particular word forms. I decided to look for *moet* (1-2-3 singular present tense) rather than *moeten* (both plural present tense and infinitive) to avoid non-finite forms.

'Valuas, the [fictive] founder of Venlo, **must** have known that Funs van Grinsven was born, otherwise he would never have founded Venlo.'   [CONDIV-NL, div02.text]

d. *dat   uh   ja   dat   **moet**   frustrerend*
   that uh   yes that must.PRS.SG   frustrating
   zijn   voor   die   mensen   waarschijn ...
   be.INF for   those people   probab...
   'that uh yes that **must** be frustrating for these people probab...'
                                    [CGN/comp-b/vl/fv400145.sea#fv400145.96]

The above use of *moeten* + INF clearly resembles the one of its German counterpart *müssen* + INF (cf. Mortelmans and Stathi, this volume). Second, *moeten* + INF is found in logical arguments, often involving deductive reasoning.

(12) a. *Er   zijn   zoveel   boekje-s verkocht van Simon Carmiggelt*
        there be.PRS.PL so.many book-PL sell.PTCP of Simon Carmiggelt
        dat   elk   gezin   in   Nederland minstens een boek van
        that every family in   Holland   at.least one book of
        *hem   in   huis   **moet**   hebben [...]*
        him   in   house   must.PRS.SG   have.INF
        'So many books of Simon Carmiggelt have been sold that every household in Holland **must** at least have one of his books.'
                                    [CONDIV-NL, div01.txt]

   b. (Context: two options are given, someone asks which one is the correct one and adds)
      *'t   **moet**   één   van   die   twee   zijn   he.*
      it   must.PRS.SG   one   of   those two   be.INF he
      'It **must** be one of those two, mustn't it.'
                                    [CGN/comp-h/vl/fv400035.sea#fv400035.110]

   c. *dat   **moet**   dus   een   deskundige zijn*
      that must.PRS.SG   therefore ART.INDF   expert   be.INF
      vermits het een   -oloog   is
      as   it   ART.INDF   -ologist be.PRS.3SG
      'That **must** therefore be an expert as it is an –ologist.'
                                    [CGN/comp-h/vl/fv400051.sea#fv400051.238]

Finally, inferential *moeten* is often found in (the more abductive kind of) reasoning typically associated with scientific theorizing.

(13) a. *Ergens   in   de   lichaamscell-en   **moet**
        somewhere   in   ART.DEF.PL body cell-PL   must.PRS.SG

een	*reactie*	*op*	*gang*	*komen*	*waardoor*
ART.INDF	reaction	in	action	come.INF	as.a.result.of.which

cell-en	*gaan*	*woeker-en*
cell-PL	go.PRS.PL	proliferate-INF

'Somewhere in the body cells a reaction **must** set in that makes these cells proliferate.'   [CONDIV-NL, div02.txt]

b. | *Een* | *dergelijk* | *geluid* | ***moet*** | *van* | *intelligent* | *leven* |
|---|---|---|---|---|---|---|
| ART.INDF | such | sound | must.PRS.SG | from | intelligent | life |

afkomstig	*zijn.*	*De*	*natuur*	*kan*	*voorzover*
coming	be.INF	ART.DEF.SG.C	nature	can.PRS.SG	as.far.as

bekend	*zo'n*	*toon*	*niet*	*creëren.*	*Het*	*is*
known	such.a	sound	not	create.INF	it	be.PRS.3SG

een	*typisch-e*	*redenering*	*van*	*astronoom*	*Seth Shostak.*
ART.INDF	typical-SG.C	argumentation	of	astronomer	Seth Shostak

'Such a sound **must** originate from intelligent life. Nature cannot create such a sound, as far as we know. This is a typical line of argument of astronomer Seth Shostak.'   [CONDIV-NL, div01.txt]

c. | *d'r* | *zijn* | *al* | *zoveel* | *studie-s* | *gemaakt* | *daarover* |
|---|---|---|---|---|---|---|
| there | be.PRS.PL | already | so.many | study-PL | make.PTCP | thereon |

en	*nooit*	*kan*	*men*	*zwart*	*op*	*wit*	*bewijzen*
and	never	can.PRS.SG	one	black	on	white	prove.INF

dat [...]	*het*	*zien*	*van*	*agressiviteit*	*agressiviteit*	*in*	*de*
COMP	ART.DEF	see.INF	of	aggression	aggression	in	ART.DEF

hand	*werk-t*	*maar*	*d'r*	***moet***	*toch*	*een*
hand	work-PRS.3SG	but	there	must.PRS.SG	however	ART.INDF

verband	*zijn*
connection	be.INF

'there have been so many studies conducted about that and one can never prove black to white that seeing aggression leads to aggression but there **must** be a connection.'

[CGN/comp-b/vl/fv400111.sea#fv400111.401]

Especially with respect to the latter cases, one could question whether these uses of *moeten* + INF are still to be labelled inferential, i.e. based on evidence, or rather epistemic.

De Haan (2000, 2001) and Cornillie (2009), among others, point out that *moeten* + INF can have reportive extensions. Corpus searches in both CGN and CONDIV, however, reveal that such extensions are extremely rare. In fact, the analysis of 6,000 instances of the present tense singular form *moet* in both written and spoken Belgian and Netherlandic Dutch finds reportive instances only

in the spoken Belgian Dutch sample (see Table 3 above). As was already noted by Cornillie (2009), contextual information plays a major role in guiding the interpretation of *moeten*. It is the presence of explicit markers pointing to reportive information that seems to allow *moeten* to get an unambiguous hearsay reading. Compare, for instance, the reportive particle '*t schijnt* (see ex. 14a and Section 3.3.3.3 for further discussion) or the parenthetical phrase *zeggen ze* 'they say' in (14b).

(14) a. *maar   die   **moet**   't   schijn-t   ook   wel*
but   DEM   must.PRS.SG.   it   seem-PRS.3SG   also   really
uh   vrij   vlot   Nederlands   gesproken   hebben.
uhm   pretty   fluently   Dutch   speak.PTCP   have.INF
'He's said to have spoken Dutch pretty fluently.'
[CGN/comp-b/vl/fv400168.sea#fv400168.201]

   b. *Gezelle   **moet**   daar   ooit   ne   keer   geweest*
Gezelle   must.PRS.SG   there   once   one   time   be.PTCP
*zijn   om   een   j*ong-e   priester   uh*
be.INF   in.order.to   ART.INDF   young-SG.C   priest   uh
Vlaams   dus   Vlaams   zegg-en   ze   te   leren
Flemish   so   Flemish   say-PRS.PL   they   to   teach.INF
'Gezelle is said to have been there once to teach Flemish to a young priest they say.'   [CGN/comp-b/vl/fv400107.sea#fv400107.572]

Another unambiguously reportive example involving *moeten* + INF is presented in (15); adverbial *naar het schijnt* (see also Section 3.3.3.3) supports the reportive reading here.

(15) *is   er   iemand   naar   inglourious   basterds* [sic]
is   there   someone   to   inglourious   basterds
*gaan   kijk-en?[...]   naar   het   schijn-t   **moet***
go.INF   watch-INF   as   it   seem-PRS.3SG   must.PRS.SG
hij   hillarisch [sic]   *zijn.*
he.NOM   hilarious   be.INF
'Has anybody watched *inglourious basterds*? **It is said** to be hilarious.'
[http://www.mbgclan.nl/forums/index.php?topic=83.20;wap2]

3.3.3 Constructions with the SEEM-verbs *lijken*, *blijken* and *schijnen*

Dutch has three verbs of appearance that can all express inferential evidentiality: *lijken*, *blijken* and *schijnen*. Characteristic of all three verbs is their

high constructional variability: apart from the fact that they can still be used as full lexical verbs (16a) expressing the meaning 'resemble' (in the case of *lijken*), 'show itself, to become clear' (in the case of *blijken*) and 'give light' (in the case of *schijnen*), they can all be used as copulae (16b), in combination with a *te*-infinitive (16c), as a complement taking predicate (16d) and in adverbial (16e) and parenthetical (16f) constructions.

(16) a. *De zon **schijnt**/Dat moet vandaag **blijken** / Hij **lijkt** op een ezel.*
'The sun **is shining**/That must **become clear** today/He **resembles** a donkey'

   b. *Anna **lijkt/blijkt/schijnt** een goede directeur.*
'Anna **seems**/**turns out to** be/**seems** a good director'

   c. *Anna **lijkt/blijkt/schijnt** een goede directeur **te zijn/te worden**.*
'Anna **seems**/**turns out to** be/**seems** to be/to become a good director'

   d. *Het **lijkt alsof/lijkt erop dat/schijnt dat/blijkt dat** Anna een goede directeur is.*
'It **seems as if**/**seems that**/**turns out** that Anna is a good director'

   e. ***Naar het lijkt/schijnt/blijkt** is ze een goede directeur.*
'As it **seems**/**turns out** she's a good director.'

   f. *Ze is, **zo lijkt het/schijnt het/blijkt het**, een goede directeur.*
'She is, as it **seems**/as it **turns out**, a good director.'

The main differences between these three verbs can be related to at least five factors, which are to some extent interconnected, as will become clear in the individual subsections:

a) their **overall frequency** (determined on the basis of their frequency in the CGN and CONDIV-corpora): especially in the written CONDIV corpus, *lijken* and *blijken* are considerably more frequent than *schijnen* (see Table 4).

b) particular **register and medium preferences**: compared to its frequency in the written corpus, *blijken* occurs less often in spoken language, whereas *schijnen* is much more frequent in the spoken corpus than in the written material (especially in the Belgian Dutch subcorpus CGN-BE). For *lijken*, the difference between its frequency in the written and the spoken corpus is minimal.

c) the possibility to combine with a **free dative experiencer**: whereas *lijken* can be combined with an experiencer in almost every construction type, this potential is extremely reduced in the case of *schijnen* and *blijken*.

d) the relative **frequency** of the **various construction patterns**: *lijken* predominantly occurs in the copula construction (illustrated in ex. 16b), *schijnen* clearly prefers the infinitival construction (illustrated in ex. 16c),

whereas *blijken* seems to prefer the complement construction (illustrated in ex. 16d).

e) their **evidential semantics**: Whereas *lijken* – when used evidentially – mainly functions as a speaker-oriented inferential marker, evidential *blijken* typically involves intersubjectively accessible evidence (see Section 3.3.3.2), and evidential *schijnen* has both inferential and reportive semantics (the latter most outspokenly in the Belgian Dutch variety).

Table 4: Frequency of the *SEEM*-type verbs *lijken*, *schijnen* and *blijken* (normalized per 100,000 words).

seem-type verbs in Dutch	CONDIV-NL newspapers		CGN-NL		CONDIV-BE newspapers		CGN-BE	
	abs	**norm**	**abs**	**norm**	**abs**	**norm**	**abs**	**norm**
lijkt 'seems'	1483	**30.9**	1824	**32.2**	2462	**19.2**	440	**13.5**
leek 'seemed'	515	**10.7**	465	**8.5**	861	**7.7**	215	**6.5**
blijkt 'appears'	1661	**34, 7**	601	**10.6**	2599	**20.3**	270	**8.2**
bleek 'appeared'	1029	**21.5**	345	**6.1**	2164	**16.9**	183	**5.6**
schijnt 'seems'	98	**2.0**	386	**6.8**	200	**1.6**	346	**10.6**
scheen 'seemed'	10	**0.2**	55	**0.97**	39	**0.3**	26	**0.8**

3.3.3.1 *lijken*-constructions

The Dutch verb *lijken* is the immediate semantic counterpart of German *scheinen*, i.e. when used evidentially, it typically expresses inferential evidentiality, whereby the evidence upon which the inference is based, can but need not be perceptual (contrary to what is claimed by Koring 2012: 876, who connects *lijken* only with "directly available perceptual evidence"). Also more conceptual evidence types are possible, as will become clear from the examples discussed below (see especially ex. 21b–c). Just like German *scheinen*, the constructional variability of Dutch *lijken* is high, as an analysis of 200 random occurrences of the 3rd person present tense form *lijkt* in the Dutch and Flemish parts of the CONDIV-corpus reveals. Additional corpus analyses involving *lijken*

can be found in Vliegen 2011a (written Netherlandic Dutch only) and Mortelmans 2017 (based on the spoken CGN-corpus).

Table 5: Distribution of construction types with Dutch 3rd person present tense *lijkt* 'seems'.

lijk-t 'seem-PRS.3SG'	CONDIV-NL	CONDIV-BE	Total
= copula	45	57	**102**
+ *te*-inf	34	27	**61**
+ *alsof* 'as if'	12	4	**16**
= main verb 'resemble'	4	8	**12**
+ *erop dat* 'like it that'	3	2	**5**
+ *me dat* 'to me that'	0	2	**2**
parenthetical *zo lijkt het* 'so it seems'	2	0	**2**
	100	100	**200**

The verb most frequently (i.e. in more than 50% of all occurrences in the CONDIV-sample) appears in the copula construction. Here, it is generally difficult to decide whether *lijken* is used with a purely lexical or with a more inferential meaning. On a lexical interpretation, the verb describes the fact that a particular way of appearance emanates from the subject. Note that on a purely lexical (i.e. non-evidential) reading, the impression does not have to correspond to reality; in example (17), for instance, the moon might look bigger on the horizon, but its actual size, of course, does not change.

(17) *De* *volle* *maan* **lijk-t** *aan* *de*
ART.DEF.SG.C full moon seem-PRS.3SG on ART.DEF.SG.C
horizon *groter* *dan* *wanneer* *hij* *hoog* *in* *de*
horizon bigger than when he.NOM high in ART.DEF.SG.C
lucht *staa-t.*
sky stand-PRS.3SG
'The full moon **seems** bigger on the horizon than when it is high up in the sky.'   [CONDIV-NL, div03.txt]

The notion of appearance presupposes the presence of an observer, who might draw a particular inference on the basis of the subject's appearance. Thus, in the following example, there is both the idea of a particular effect emanating

from the subject and the observer drawing particular conclusions.[8] In (18), the verb can be said to hover between a more lexical meaning (the subject gives the impression of being very calm, i.e. a particular effect emanates from the subject) and a more evidential one (the speaker infers from particular signs that the subject is calm). For a similar analysis, cf. Whitt (2018).

(18) *In   tegenstelling   tot   veel   ander-e   speler-s   **lijk-t***
in   contrast   to   many   other-PL   player-PL   seem-PRS.3SG
hij [...]   ijzig   kalm.
he.NOM   ice   calm
'In contrast to many other players he **seems** ice calm.'

[CONDIV-NL, nieuws07.txt]

In example (19), finally, only an inferential meaning seems to be possible.

(19) *Het   **lijk-t**   geen   toeval   dat   Dracula   uit*
it   seem-PRS.3SG   no   coincidence   COMP   D.   out.of
Transsylvanië   kwam,   omdat   de   uitbuiting
Transylvania   come.PST.SG   because   ART.DEF.SG.C   exploitation
en   wreedheid   daar   een   ongekend   hoogtepunt   bereik-ten.
and   cruelty   there   ART.INDF   unknown   height   reach-PST.PL
'It does not **seem** a coincidence that Dracula came from Transylvania, because the exploitation and cruelty there reached an unknown height.'

[CONDIV-BE, hbvl1.txt]

Note that copular *lijken* is often (i.e. in about 25 % of the cases in my sample) accompanied by a dative experiencer (typically the first person singular pronoun *me/mij* 'me'), in which case *lijken* can no longer be interpreted as a pure inferential evidential, but rather as a subjectifier: the phrase *lijkt me* can be paraphrased as 'I find' or 'I think'.

(20) *Dat   **lijk-t**   me   overigens   niet   fair.*
that   seem-PRS.3SG   I.OBL   by the way   not   fair
'I don't think that's fair.'   [CONDIV-BE, gva1.txt]

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8 Poortvliet (2017) describes the development of the Dutch evidential copula *klinken* 'sound' = 'seem, based on (auditory) evidence)' along the same lines. The verb originally meant 'give off a clear sound' and has developed its evidential semantics through a process of subjectification which is dependent on the presence of the experiencer, i.e. the person hearing the sound.

The second most frequent construction type *lijken* appears in (in 61 out of 200 occurrences)[9] is the combination with a *te*-infinitive, in which the verb typically invites an inferential reading. The evidence upon which the inference is based can but need not be perceptually available. In (21a), the speaker is looking at the sky and infers on the basis of what she sees that the sky is clearing up, in (21b) the inference is based on what the investigators have said about the causes of a car accident, whereas in (21c) the speaker seems to express an inference on the basis of her personal reading of a particular work. Note that the use of *lijken* in ex. (21c) is highly subjective, as it can be taken to express the speaker's personal opinion.

(21) a. *Vanmorgen   was   het   bewolkt,   maar   nu*
          this.morning   be.PST.SG it   cloudy   but   now
          lijk-t   *de   zon   erdoor   te   komen.*
          seem-PRS.3SG   ART.DEF   sun   through.it   to   come.INF
          'This morning it was cloudy, but now it **seems** to clear up.'
                                                    [https://www.tboek.nl/gastenboek/avputten/en/95/]

      b. *Volgens   de   onderzoeker-s   zou-den   drankmisbruik*
          according to   ART.DEF   investigator-PL shall-PST.PL alcohol abuse
          en   te   hog-e   snelheid   de   oorzak-en   ge-wees-t
          and   too   high   speed   ART.DEF   cause-PL   PTCP-be-PTCP
          zijn   van   het   ongeval.   De   schuld
          be.INF   of   ART.DEF.SG.N   accident   ART.DEF.SG.C guilt
          lijk-t   *dus   bij   de   chauffeur te ligg-en.*
          seem-PRS.3SG   therefore   with   ART.DEF.SG.C   driver t   to lie-INF
          'According to the investigators, alcohol abuse and speeding were the causes of the accident. The guilt therefore **seems** to lie with the driver.'
                                                                   [CONDIV-BE, hbv11.txt]

      c. *De   dramatisch-e   liefdesrelatie-s   zijn*
          ART.DEF.PL   dramatic-PL   love relationship-PL   be.PRS.PL
          intens   genoeg   ge-typeer-d,   maar   verder dan die
          intensely   enough   PTCP-describe-PTCP   but   further than those
          *man-vrouwproblematiek   **lijk-t***   *ze   niet   te*
          problems of man vs. woman   seem-PRS.3SG   she.NOM   not   to
          komen.
          come.INF

'The dramatic love relationships are described with apt intensity, but she [= the author] does not **seem** to come any further than these problems of man vs. woman.' [CONDIV-BE, DS961114.txt]

In contrast to *blijken* (see Section 3.3.3.2), *lijken* + *te*-INF in general seems to be a speaker-oriented marker, which is also underscored by the fact that it can combine with an on-stage experiencer.[10]

(22)   *Zo'n*   *Kenneth Starr*   *bijvoorbeeld*   **lijk-t**   *me*
      such.a   Kenneth Starr   for.instance   seem-PRS.3SG   I.OBL
      te   *lijden*   *aan*   *achtervolgerswaan.*
      to   suffer.INF   from   persecution mania
      'Someone like Kenneth Star for instance **seems** to me to suffer from persecution mania.'   [CONDIV-NL, varia06.txt]

Occasionally, *lijken* + *te*-INF gets a non-factual interpretation, referring to a state of affairs that only appears to be the case. This can be interpreted in terms of a persistence effect of the original meaning of *lijken* 'resemble'. Note that the impersonal *het lijkt alsof* 'it seems as if' construction is a more likely candidate to express the latter meaning (see ex. 26a).

(23)   *De*   *lerares*   *aquarobic*   **lijk-t**   *wel*   *van*
      ART.DEF.SG.C   teacher   aquarobics   seem-PRS.3SG   actually   of
      elastiek   *te*   *zijn*   *ge-maak-t.*
      elastic   to   be.PASS.INF   PTCP-make-PTCP
      'The aquarobics teacher **seems** to be made of elastic.'
                            [CONDIV-NL, verstr3.txt]

There is another impersonal construction type in which *lijken* only has inferential meaning: in combination with the pronominal adverb *erop* (lit. 'thereupon') followed by the complementizer *dat* (occasionally, the combination *lijkt erop alsof* 'looks thereupon as if' is also found).[11]

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10 It should be noted, though, that none of the 61 infinitival *lijken*-occurrences in my CONDIV-sample contains an experiencer. This could be due to the fact that explicitly subjective uses of *lijken* are less likely to occur in a newspaper corpus. An analysis of the spoken CGN-corpus (cf. Mortelmans 2017) reveals that in a spoken sample, infinitival *lijken* combines with an explicit experiencer in about 18 % of all cases.

11 Interestingly, the impersonal complement construction *het ziet ernaar uit dat* lit. 'it looks like it that' containing the lexical verb *uitzien* 'look like, appear' in combination with a prepositional adverb *ernaar* and the complementizer *dat* has the same inferential meaning (cf. also Poortvliet 2016).

(24) a. *Het* **lijk-t** *erop dat* *dievenbendes* *een* *nieuw*
it seem-PRS.3SG like.it that gangs of thieves ART.INDF new
gat *in* *de [...]* *markt* *hebb-en* *ge-vond-en.* *Voor*
hole in ART.DEF market have-PRS.PL PTCP-find-PTCP for
de *derde keer* *op* *twee* *wek-en* *tijd* *werden*
ART.DEF third time in two week-PL time PASS.PST.PL
loods-en *van de* *overheid* *leeg<ge>haal-d.*
shed-PL of ART.DEF authorities <PTCP>gut-PTCP
'It **seems that** gangs of thieves have found a new hole in the market.
For the third time in two weeks public sheds were gutted.'

[CONDIV-BE, hbvl1.txt]

The inferential reading of the *het lijkt erop dat*-construction seems to be highly
conventionalized. An only-appearance reading is not possible (in contrast to
lijken + *te*-INF; see ex. 23).

(24) b. *?* Het* **lijk-t** *erop dat* *de* *lerares* *van*
it seem-PRS.3SG like.it COMP ART.DEF teacher of
elastiek *is* *ge-maak-t.*
elastic be.PRS.3SG PTCP-make-PTCP

Also the combination with a dative experiencer – which *lijken* almost always
allows – is odd, if not impossible, in the *lijkt erop dat*-construction type. This
construction type is therefore clearly different from *het lijkt me dat* ('it seems to
me that') which clearly expresses the speaker's personal opinion.

(25) *Het* **lijk-t** *me* *dat* *niemand* *het* *recht*
it seem-PRS.3SG I.OBL COMP no one ART.DEF right
heef-t *te* *tred-en* *in* *de* *persoonlijk-e*
have-PRS.3SG to enter-INF into ART.DEF personal-SG.C
religieuz-e *beleving* *van* *iemand* *anders.*
religious-SG.C experience of someone else

(ii) *het* **zie-t** *ernaar uit* *dat* *de* *verkiezing* *van* *een* *nieuw-e*
it look-PRS.3SG like.it look COMP ART.DEF election of ART.INDF new-SG.C
partijleiding *voor* *Ecolo* *een* *spannend* *duel* *word-t*
party leadership for Ecolo ART.INDF exciting competion become.PRS.3SG
tussen *twee* *ploeg-en.*
between two team-PL
'It looks as if the election of a new party leadership for Ecolo will become an exciting com-
petition between two teams.' [CGN/comp-j/vl/fv600064.sea#fv600064.1]

'It **seems to me** [I find, I have the opinion] **that** nobody has the right to enter the personal religious experience of another person.'

[CONDIV-NL, varia06.txt]

Finally, the impersonal construction type *het lijkt alsof* 'it seems as if' invites two different readings: a non-evidential one in which the appearance does not match reality (as in 26a), and one in which the construction has the same inferential meaning as *het lijkt erop dat* (26b):

(26) a.   *"Het*   **lijk-t**   *wel*   **alsof**   *ik*   *naar*   *Barcelona*
      it   seem-PRS.3SG   really   as.if   I   to   Barcelona
      trek,"   *lach-te*   *Clijsters.*
      move.PRS.1SG   laugh-PST.SG   Clijsters
      '"It **seems as if** I'm going to Barcelona", Clijsters laughed.'

[CONDIV-BE, hbv11.txt]

     b.   *Er*   *is*   *eindelijk dialoog,*   *het*   **lijk-t**   **alsof**
      there   be.PRS.3SG   finally   dialogue   it   seem-PRS.3SG   as.if
      de   *discussie*   *uit*   *de*   *impasse*   *klauter-t.*
      ART.DEF.SG.C   discussion   out.of   ART.DEF.SG.C impasse   climb-PRS.3SG
      'Finally, there is some dialogue, it **seems as if/that** the discussion is getting out of the impasse.'   [CONDIV-BE, hbv11.txt]

3.3.3.2 *blijken*-constructions

In the rather scarce literature on *blijken + te*-INF, there seems to be consensus regarding two aspects of its meaning: first, the verb is said to "presuppose strong evidence, which means that the claim follows imperatively from the evidence" (Sanders and Spooren 1996: 243), *blijken* is therefore associated with a high degree of epistemic certainty. And second, the evidence upon which the inference is based is said to be "directly manifest", as such "the commitment to the validity of the information is shared or at least potentially shared by the speaker/listener and other participants" (Sanders and Spooren 1996: 245). Vliegen (2010) combines both traits when he speaks of *blijken*'s "intersubjektive Gewissheit" ('intersubjective certainty'). It should be stressed that evidential *blijken* is therefore clearly different from the adverb *blijkbaar*, which lacks both the epistemic certainty and the highly intersubjective[12] character of the evidence: whereas *blijken + te*-INF can be paraphrased as 'appear/turn out to be on

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12 The verb's inherent intersubjectivity might also explain why it is not normally compatible with a dative experiencer (? *blijkt mij*).

the basis of easily accessible strong evidence", the adverb *blijkbaar* rather means something like 'as I have inferred/as I have heard' (see Section 3.3.1.1).

(27) *Het tekortschiet-en van de politie bij de*
ART.DEF fail-INF   of   ART.DEF police at ART.DEF.PL
*oudejaarsrellen [...] **blijk-t** niet op zichzelf te staa-n.*
new years' eve riots turn.out-PRS.3SG not on REFL to stand-INF
Het is ge-volg-d door een vernietigend rapport.
it be.PRS.3SG PTCP-follow-PTCP by ART.INDF devastating report
'The failure of the police to act properly during the new year's eve riots does not **appear** to be an isolated fact. It is followed by a devastating report.'
[CONDIV-NL, nieuws01.txt]

Sanders and Spooren (1996) exclusively focus on the infinitival construction, but in fact, *blijken* occurs at least as frequently in the complement *dat*-construction, illustrated in (28).

(28) *Uit tekening-en in Egyptische grafkamer-s **blijk-t***
out.of drawing-PL in Egyptian tomb chamber-PL turn.out-PRS.3SG
dat de plant al zo'n vierduizend jaar vóór
that ART.DEF plant already about four thousand year before
Christus in ieder geval in de Nijldelta [...] werd
Christ in any case in ART.DEF Nile.delta PASS.PAST.SG
ge-teel-d.
PTCP-cultivate-PTCP
'From drawings in Egyptian tomb chambers it **appears** that at least in the Nile delta, the plant was already cultivated about 4,000 years ago.'
[CONDIV-NL, div01.txt]

Table 6 presents an overview of the distribution of the various construction types found with the 3rd person singular present tense form *blijkt* (on the basis of a random sample of 200 occurrences of *blijkt* in CONDIV-NL and CONDIV-BE). Note that there are no significant differences qua distribution between Belgian and Netherlandic written Dutch.

The most frequent construction type in my sample is the complement construction *het blijkt dat* 'it appears/turns out that', followed by the infinitival *blijken* + *te*-INF-construction.[13]

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13 On the basis of an analysis of 725 occurrences of *blijken* in a (Netherlandic) Dutch newspaper corpus, Vliegen (2011a) reports that *blijken* + *te*-INF is equally frequent as the *blijken dat*-construction. In my data, however, the complement construction is clearly the most frequent one.

Table 6: Distribution of construction types with Dutch 3rd person singular present tense *blijkt* 'turn out'.

blijk-t 'turn.out-PRS.3SG'	CONDIV-NL	CONDIV-BE	Total
+ *dat* 'that'	37	34	**71**
+ *te*-inf	22	21	**43**
= full verb	14	24	**38**
= copula	17	15	**32**
parenthetical *zo blijkt* 'so it appears'	10	6	**16**
	100	100	**200**

The complement construction is often (in my sample in more than two third of all cases) combined with a prepositional phrase introduced by *uit* 'from', which explicitly codes the evidential source (cf. also Vliegen 2011a: 132): *uit brieven* ('from letters'), *uit onderzoek* ('from research'), *uit een enquete* ('from a survey'), *uit resultaten* ('from results') *blijkt dat* ('appears that'). The link between the on-stage evidence and the inference made can be underscored by adverbs like (*over*)*duidelijk* '(very) clearly' (as in ex. 29a). In the complement construction, the verb *blijken* can also be negated (see ex. 29b). In view of the fact that the construction (*uit x) blijkt dat* is equally compatible with inferential and hearsay meanings, it seems warranted to characterize it as mainly indirect evidential.

(29) a. *Uit   ons   jaarlijks-e   onderzoek   onder   1,500*
out.of   our   yearly-SG.N   investigation   under   1,500
*huishouden-s **blijk-t**   **duidelijk**   dat   mensen   weer*
household-PL   turn.out-PRS.3SG   clearly   that   people   again
meer   waarde   hecht-en   aan   gezond   eten.
more   value   attach-INF   to   healthy   nutrition
'From our yearly survey of 1,500 households it clearly **appears** that people again value healthy nutrition more.'   [CONDIV-NL, div01.txt]

b. *Uit   het   deskundigenverslag   **blijk-t** [...]   **niet***
out.of   ART.DEF.SG.N   expert report   turn.out-PRS.3SG   not
dat   het   slachtoffer   door   de   vechtpartij
that   ART.DEF.SG.N   victim   because.of   ART.DEF.SG.C   fighting
een   schooljaar   heef-t   verloren.
ART.INDF   year of study   have-PRS.3SG   lose.PTCP
'From the expert report it does **not appear** that the victim has lost a year of study because of the fighting.'   [CONDIV-BE, gva1.txt]

Interestingly, the construction *blijken* + *te*-INF cannot be combined with a prepositional phrase, i.e. the evidence evoked by *blijken* + *te*-INF is typically more of an implicit nature, and therefore not automatically construed as intersubjectively accessible. A more in-depth analysis could shed light on other differences between the complement and the infinitival construction types. For reasons of space, however, I will not treat this any further here.

An element that has not gained attention in the literature is the fact that *blijken* easily evokes mirative overtones (in the sense of DeLancey 1997, 2001, 2012) in that the proposition is often unexpected, surprising, unpleasant or irritating.[14] Such a mirative reading does not seem to be tied to a particular construction type: (30a) features mirative *blijken* in a copula construction (the adverb *warempel* 'really' emphasizes the mirativity), (30b) in combination with a *te*-infinitive, (30c) with a complement *dat*-construction.

(30) a.   *In*   *de*   *hand-en*   *van* *de*   *gedegen*   *regisseur*
        in   ART.DEF.PL hand-PL of   ART.DEF well-qualified   director
        Ellen van Wieren   **blijk-t**   *het*   **warempel**   *mogelijk*
        Ellen van Wieren   turn.out-PRS.3SG it   really   possible
        om   *iets*   *moois*   *te* *bouwen* *op*   *een*   *slecht*
        COMP something beautiful to build.INF on   ART.INDF bad
        fundament.
        foundation
        'In the hands of the well-qualified director Ellen van Wieren it **actually appears** to be possible to build something beautiful on bad foundations.'   [CONDIV-NL, nieuws03.txt]

    b.   *En* *één* *van* *de*   *minst* *sympathiek-e* *person-en*
        and one of   ART.DEF least   sympathetic-PL person-PL
        blijk-t   *dan* *de*   *vader* *van* *de*
        turn.out-PRS.3SG then ART.DEF.SG.C father of   ART.DEF.SG.C
        hoofdpersoon *te*   *zijn.*
        main character to   be.INF
        'And one of the least sympathetic persons **turns out** to be the father of the main character.'   [CONDIV-NL, div01.txt]

    c.   *Ze* *zijn*   *behoorlijk* *geschrokken* *van*   *de*
        they be.PRS.PL quite   upset   of   ART.DEF.SG.C
        eerst-e   *analyse* *die* *het*   *Brusselse*   *bureau [...]*
        first-SG.C   analysis REL ART.DEF.SG.N Brussels   office

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14 A similar extension has been described for (the semantically related verbs) *resultar* in Spanish and *turn out* in English (see Serrano-Losada 2017).

heef-t	*gemaakt.*	*Daaruit*	**blijk-t**		**dat**
have-PRS.3SG	make.PTCP	from.that	turn.out-PRS.3SG		COMP
de	*goedkoopst-e*	*optie […]*	*nog*	*altijd*	
ART.DEF.SG.C	cheapest-SG.C	option	still	always	
twaalf	*miljard*	*frank*	*zal*	*kosten.*	
twelve	billion	franc	will.PRS.SG	cost.INF	

'They are quite upset by the first analysis made by the Brussels office. This **shows that** the cheapest option will still cost twelve billion francs.'   [CONDIV-BE, hbvl1.text]

For reasons of space, the other construction types *blijken* appears in will not be discussed.

3.3.3.3 *schijnen*-constructions

The verb *schijnen* is the least frequent of the three SEEM-verbs in Dutch. It shares with the other ones a high degree of constructional variability, as is shown in Table 7.

Table 7: Distribution of construction types with Dutch 3rd person singular present tense *schijnt*.

schijn-t 'seem-PRS.3SG'	CONDIV-NL	CONDIV-BE	Total
+*te*-INF	59	34	**93**
= main verb	20	31	**51**
adverbial *naar het schijn* 'as it seems'	4	20	**24**
+ *dat* 'that'	9	8	**17**
= copula	5	5	**10**
parenthetical *zo schijnt het* 'so it seems'	1	2	**3**
	98[15]	100	**198**

Evidential *schijnen* occurs most often in the infinitival construction, in which it mostly evokes either inferential or reportive readings. Readings in which the inference seems to be based on reported information can also be found, so that it is not always easy to determine whether *schijnen* is mainly reportive, mainly inferential or rather indifferent with respect to these two readings. Example

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15 The present tense singular form *schijnt* occurs only 98 times in the entire newspaper part of the CONDIV. This is completely in line with the findings represented in Table 4, which shows that *schijnen* is clearly the least frequent member of the Dutch trio of *seem*-type verbs.

(31a) presents a clear case of inferential *schijnen*: on the basis of the (visually observable) fact that one does not spot any Alfa Romeos 1750 or 2000 anymore, the writer infers that these have been scrapped. In example (31b), on the other hand, *schijnen* + *te*-INF seems to be mainly reportive, as the speaker bases her utterance on what she has heard or read. Finally, example (31c) illustrates a reading whereby *schijnen* + te-INF expresses an inference that is based on what the speaker has read or heard.

(31) a. *Terwijl   men   af   en   toe   nog   een   oud-e*
         while   one   off   and   on   still ART.INDF old-SG.C
         *Giulia Super   op   straat   tegenkom-t,   **schijn-en***
         Giulia Super   on   street   encounter-PRS.3SG seem-PRS.PL
         zijn grot-e   familieled-en,   de   1750   en   2000,
         his big-PL   family.member-PL ART.DEF   1750   and   2000
         allemaal gesloopt   te   zijn.
         all   scrap-PTCP   to   be.INF
         'Whereas one sometimes still spots an old Giulia Super on the streets, its older family members the 1750 and 2000 all **seem** to have been scrapped.'   [CONDIV-NL, verstr2.txt]

     b. *Het   **schijn-t**   vaker   voor   te   vallen,*
         it   seem-PRS.3SG   more.often   occur   to   occur.INF
         maar Rudy, het   tweehoofdig   zwijntje [...]   uit
         but   Rudy ART.DEF.SG.N   two-headed   pig   rom
         Edgewood, Iowa,   leef-t   en   blijf-t   lev-en
         Edgewood, Iowo   live-PRS.3SG   and   remain-PRS.3SG   live-INF
         '**Apparently** it occurs more often, but Rudy, the two-headed pig from Edgewood, Iowa, is alive and stays alive.'   [CONDIV-BE, hbvl1.txt]

     c. (Federal minister of health Marcel Colla wants hospitals in which pacemakers are implanted, to have a doctor who knows something about the procedure.)
         *Dat   **schijn-t**   niet   altijd   het   geval te zijn*
         that seem-PRS.3SG   not   always   ART.DEF.SG.N   case to be.INF
         dat is   althans   af   te   leiden   uit   een
         that be.PRS.3SG   at.least   infer to   infer.INF from   ART.INDF
         mededeling van   minister   Colla   hierover.
         statement   of   minister   Colla   about.this
         'That does not always **seem** to be case; that is at least what can be inferred from a statement by minister Colla on this topic.'
                                                   [CONDIV-BE, DS961214.txt]

The reportive reading of *schijnen* occurs most consistently in the impersonal complement construction (*het schijnt dat* 'it seems that') and in the adverbial *naar het schijnt*-construction, the latter of which is typical of Belgian Dutch (*naar het schijnt* occurs 20 times in the Belgian Dutch corpus, but only 4 times in the Northern Dutch one).[16]

(32) a.   **_Naar_**   **_het_**   **_schijn-t_**   *kunn-en*   *papegaai-en* *wel*
         as   it   seem-PRS.3SG   can-PRS.PL parrot-PL   really
         tachtig *jaar*   *oud*   *worden*
         eighty   year   old   become.INF
         'I've heard/read that parrots can live up to eighty years.'
                                             [CONDIV-BE, hbvl1.txt]

     b.   **_Het_**   **_schijn-t_**   **_dat_**   *ook*   *de*   *Comme chez Soi*
         it   seem-PRS.3SG   COMP also   ART.DEF   Comme chez Soi
         al   *helemaal*   *volgeboekt*   *is.*
         already   completely   booked up   be.PRS.3SG
         'I've heard/read that the Comme Chez Soi [a famous Belgian restaurant] is already fully booked.'   [CONDIV-BE, gva1.txt]

Finally, the hearsay particle *('t) schijnt* should be mentioned, which is typical of Belgian colloquial spoken Dutch (cf. Van Bogaert and Colleman 2013; Van Bogaert and Leuschner 2016).[17]

(33)   *nee*   *dat*   *is*   *dus*   **_schijn-t_**   *echt*
      no   that   be.PRS.3SG so   seem-PRS.3SG   really
      de   *kelder* *dus*   *van*   *het*   *Sint-Lucasinstituut*
      ART.DEF   cellar   so   of   ART.DEF.SG.N   St Luke's Institute
      'No, so that is really, **as I'm told**, the cellar of St Luke's Institute.' (example and translation taken from Van Bogaert and Colleman 2013: 501)
                                                 [CGN-BE]

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16 An additional search in the Corpus of Spoken Dutch (CGN) confirms this trend: whereas the adverbial *naar het schijnt* construction appears no less than 68 times in the Belgian part of the CGN, it occurs only once in the Netherlandic Dutch part (whereby it must be noted that CGN's Netherlandic part is almost three times as large as the Belgian one) (see also Mortelmans 2016, 2017).

17 Incidentally, particle uses of *lijken* and *blijken* – in both cases without cliticized subjects – can also be found in the spoken CGN-corpus, although they will not be discussed here for reasons of space.

(iii) *vanmiddag*   *was*   *'t*   *eigenlijk*   *niet* *nodig*   **_bleek_**.
       this afternoon   be.PST.SG it   actually   not   necessary   turn.out-PST.SG
       'This afternoon it wasn't necessary, **(as it) turned out**'   [CGN-NL]

The particle occurs both with and without the cliticized subject *'t* (< *het* 'it'), whereby the form with *'t* (*'t schijnt*) is typical of Belgian Dutch, whereas Netherlandic Dutch only features the form without *'t* (*schijnt*) (Van Bogaert and Colleman 2013). In fact, Van Bogaert and Colleman (2013: 510–513) relate the two different manifestations of the particle – *('t) schijnt* (Belgian Dutch) vs. only *schijnt* (Netherlandic Dutch) – to different paths of development. The discussion regarding the origin and diachronic development of the reportive particle *'t schijnt* is taken up again in Vliegen (2019) and in Van Bogaert and Colleman's (2019) response to Vliegen (2019).

3.4 Reportive units

Reportive units can be divided in three subgroups: we find adverbs and adverbial constructions, verbal constructions (*zou* + bare infinitive) and the source preposition *volgens* 'according to', each of which will be addressed in the following subsections.

3.4.1 Reportive adverb(ial)s

Dutch has a number of adverb(ial)s dedicated to the marking of reportive evidentiality. They differ from one another in two respects. First, *naar verluidt* 'reportedly' and *naar het schijnt* 'allegedly' are used when the speaker is simply not committed to the truth of the proposition, whereas *zogezegd* and *zogenaamd* 'supposedly' explicitly signal epistemic distancing. A second criterion distinguishing these adverb(ial)s relates to the source they refer to: *naar eigen zeggen* 'in his/her/their own words' explicitly codes the subject as evidential source, whereas the other adverb(ial)s typically remain vague with respect to the evidential source.

3.4.1.1 The hearsay adverbials *naar verluidt* and *naar het schijnt*

The adverbials *naar verluidt* ('reportedly, according to reports', lit. 'as is reported') and *naar het schijnt* (lit. 'as it seems') function as hearsay-markers, whereby the speaker indicates that the information stems from a non-specified source, so that the speaker cannot commit herself to the truth of the proposition. The overall occurrence rate of these adverbials is rather low, as is shown in Table 8. All of them seem to be used more frequently in Belgian Dutch than in Netherlandic Dutch. *Naar verluidt* generally occurs more often in the written sample (espe-

cially in CONDIV-BE), whereas *naar het schijnt* is typical of spoken (informal) Belgian Dutch.

Table 8: Absolute frequencies of reportive *naar verluidt*, *naar het schijnt* and *naar eigen zeggen*.

	CONDIV-NL newspapers	CGN-NL	CONDIV-BE newspapers	CGN-BE
naar verluidt	80	4	224	12
naar het schijnt	4	1	24	68
naar eigen zeggen	74	6	317	10

Examples are (34a) and (34b) (the latter is repeated from 32a):

(34) a. **Naar** **verluidt** *sukkel-t* *hij* *de*
according to report be.sickly-PRS.3SG he.NOM ART.DEF.SG.C
jongst-e *tijd* *met* *zijn* *gezondheid*.
most.recent-SG.C time with his health
'He has been having health problems recently, **it is said**.'
[CONDIV-BE, hbvl1.txt]

   b. **Naar** **het** **schijn-t** *kunn-en* *papegaai-en* *wel*
as it seem-PRS.3SG can-PRS.PL parrot-PL really
tachtig *jaar* *oud* *word-en*
eighty year old become-INF
'I've heard/read that parrots can live up to eighty years.'
[CONDIV-BE, hbvl1.txt]

Both adverbials can be accompanied by the reportive auxiliary *zou* (see Section 3.4.2). Note, however, that the combination with *zou* is not that frequent: a quick search of 100 occurrences of *naar verluidt* in the written CONDIV-corpus (50 Belgian, 50 Netherlandic Dutch hits) reveals that *naar verluidt* combines with reportive *zou* 12 times (see ex. 35a). Similarly, in the Belgian subpart of the CGN, only 2 of the 68 *naar het schijnt* occurrences combine with *zou*; (35b) presents an example. It should be noted that there does not seem to be a functional difference between uses of the adverbials with or without the reportive auxiliary, which suggests that this is a case of evidential concord.

(35) a. *Ze* *is* *waarschijnlijk* *enorm* *intelligent,* *maar*
she be.PRS.3SG probably highly intelligent but
zou **naar** **verluidt** *last* *hebb-en* *van*
shall.PST.SG according to report trouble have-INF of

sterallures
starlike airs
'She's probably highly intelligent, but she **is said** to suffer from star-
like airs.'   [CONDIV-BE, hbvl2.txt]

b. *en   naar   't   schijn-t   **zou-den**   het   de*
   and   as   it   seem-PRS.3SG shall-PST.PL it   ART.DEF.PL
   politic-i   zijn   die   het   uh   hebb-en   tegen\<ge\>houd-en
   politician-PL be.INF REL   it   uh   have-PRS.PL \<PTCP\>halt-PTCP
   'and **allegedly** it's the politicians who have halted it.'
                                  [CGN/vl/fv400136.sea#fv400136.47]

3.4.1.2 The hearsay adverbial *naar eigen zeggen*

Naar eigen zeggen (lit. 'following his/her own saying; according to him/herself')
differs from the two other adverbials in that it mostly refers to the sentence sub-
ject as reportive source. In this respect, it resembles German evidential *wollen*
(cf. Mortelmans and Stathi, this volume, Section 3.4.2). Note that *naar eigen
zeggen* can, but does not necessarily indicate epistemic distance.

(36) a. *tegen   hem   was   de   doodstraf*
         against he.OBL be.PST.SG ART.DEF.SG.C   death penalty
         ge-ëis-t   een   straf   die   hij
         PTCP-demand-PTCP ART.INDF punishment REL   he.NOM
         naar   eigen   zeggen *ook   verdien-de.*
         according to own   saying   also   deserve-PST.SG
         'for him the death penalty was demanded, a punishment which he –
         as he said himself – also deserved.'
                                  [CGN/comp-k/nl/fn003140.sea#fn003140.3]
   b. *Drudge   lees-t   **naar   eigen   zeggen***
       Drudge   read-PRS.3SG according to own   saying
       achttien   krant-en   perdag [...]
       eighteen   newspaper-PL perday
       'Drudge reads eighteen newspapers a day, **he says himself.**'
                                              [CONDIV-NL, nieuws01.txt]

Occasionally, the reportive source is not the subject, but another participant in
the sentence, as in (37).

(37) *De [...] tariefsverlaging kost   KPN **naar   eigen   zeggen***
    ART.DEF rate reduction   kost.PRS.3SG KPN according to own   saying
    330 miljoen gulden.
    330 million gulden

'The rate reduction cost KPN **as they say themselves** 330 million gulden.'

[CONDIV-NL, nieuws03.txt]

3.4.1.3 The non-factual adverbs *zogezegd* and *zogenaamd*

In spite of their etymology, the adverbs[18] *zogezegd* (lit. 'so said, allegedly, supposedly') and *zogenaamd* (lit. 'so-called') do not normally have the same 'neutral' reportive readings as *naar het schijnt*, *naar verluidt* or *naar eigen zeggen*. They are typically used when the speaker expresses her disbelief with respect to the truth of what has been said, as in (38a) or (38b).

(38) a. *zij*   *hebb-en*   *zowat*   *elke*   *dag*   *een*   *nieuw*
      they   have-PRS.PL   about   every   day   ART.INDF   new
      wetsvoorstel   *dat* **zogezegd**   *is*   *in<ge>gev-en*
      legislative proposal REL supposedly   be.PRS.3SG <PTCP>inspire-PTCP
      door   *social-e [...]*   *bekommerniss-en,*   *maar*   *in*   *feite*   *alleen*
      by   social-PL   concern-PL   but   in   fact   only
      maar   *de*   *mensen*   *het*   *leven*   *nog*   *zuurder*
      just   ART.DEF   people   ART.DEF.SG.N   life   even   harder
      maak-t.
      make-PRS.3SG
      'They have a new legislative proposal about every day which is **supposedly** inspired by social concerns, but in fact makes life even more difficult for the people.'   [CONDIV-BE, hbvl1.txt]

   b. *Op*   *papier*   *was [...]*   *Herman S. [...]*   *'vader'*   *van*   *het*
      on   paper   be.PST.SG   Herman S.   father   of   ART.DEF.SG.N
      kind,   *dat* **zogenaamd,**   *tijdens*   *een*   *vakantie*   *in*
      child   REL supposedly   during   ART.INDF   holiday   in
      de   *gauwigheid*   *was*   *verwek-t.*
      ART.DEF   rush   be.PASS.PST.SG   conceive-PTCP
      'Officially Herman S. was the 'father' of the child that was **allegedly** conceived in a rush during a holiday.'   [CONDIV-NL, nie_sp7.txt]

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18 *Zogezegd* can also be used as an adjective in Belgian Dutch, as in *een zogezegde archeoloog* 'a so-called archeologist'. Note that *zogezegd* in other contexts can also mean 'so to speak' (*Hij is zogezegd een kwajongen* 'He is a rascal, so to speak') or 'almost' (*Dit boek is zogezegd klaar* 'This book is almost ready').

3.4.2 Reportive modal verb constructions: *zou* + INF

Reportive meanings can also be expressed by the modal verb construction *zou* + INF, which is highly polyfunctional, as it not only expresses non-factuality, hypotheticality and reportive evidentiality, but also functions as the backshifted tense form of the future construction *zullen* + INF, among other things. Although the overall frequency of the construction is high (see Table 9), the reportive reading does not seem to be very salient: in a sample of 200 randomly selected *zou*-instances (100 CONDIV-NL; 100 CONDIV-BE), only 23 items could be categorized as reportive.

Table 9: Total number of occurrences of *zou* in CONDIV and CGN.

zou	CONDIV-NL	CGN-NL	CONDIV-BE	CGN-BE
	6,563	9,367	14,044	6,652

A characteristic of reportive *zou* + INF is the fact that it is often found repeated in longer stretches of texts, whereby the writer seems to emphasize the fact that the information is only second-hand or even third-hard, so that it is impossible to commit herself to its truth. According to De Haan (2001), reportive *zou* is typically used in newspaper language, in which it signals 'unconfirmed information'. An example is (39), in which reportive *zou* is used in a discussion of the content of Princess Diana's will (a document to which the writer obviously did not have direct access).

(39)   *Het   bezit   van   prinses   Diana   word-t   geschat*
       the   property   of   princess   Diana   PASS-PRS.3SG   PTCP.estimate
       op   zo'n   1,4   miljard   frank,   waarvan   ongeveer   1,1   miljard   frank
       on   about   1,4   billion   franc   of.which   about   1,1   billion   franc
       *afkomstig   **zou**   zijn   van   de   scheiding   met*
       coming   shall.PST.SG   be.INF   from   ART.DEF   divorce   with
       *prins   Charles.   De   prinses   **zou**   driekwart   van*
       prince   Charles   ART.DEF   princess   shall.PST.SG   three quarters   of
       het   total-e   bedrag   aan   haar   twee   zon-en   hebben
       ART.DEF.SG.N   total-SG.N   amount   to   her   two   son-PL   have.INF
       na<ge>lat-en.   Ander-en   die   in   het   testament   worden
       <PTCP>leave-PTCP   other-PL   REL   in   ART.DEF   will   PASS.PRS.PL
       genoemd   zijn   Diana's   butler   die   bijna   3,5   miljoen   franc
       mention.PTCP   be.PRS.PL   Diana's   butler   REL   almost   3,5   million   *frank*

zou *krijgen.*
shall.PST.SG get.INF
'Lady Diana's property is estimated at about 1,4 billion Francs, about 1,1 billion Francs of which **are said** to result from the divorce of Prince Charles. The princess **is said** to have left about three quarters of the total amount to her two sons. Others that are mentioned in the will are Diana's butler who **is said** to get about 3,4 million Francs.' [CONDIV-BE, hbvl1, txt]

Reportive *zou* can also be used in contexts in which the information is clearly doubted. In the following example (40), for instance, *zou* is used to render the accused's alternative account of the crime he has committed. The context makes clear that this alternative is not regarded as very trustworthy by the reporting writer, which is suggested by the introductory phrase *had hij een heel ander verhaal opgedist* 'had he told a very different story' (whereby the verb *opdissen* actually means 'tell something that is not true').

(40) *Nochtans had hij tijdens zijn proces een heel*
however have.PST.SG he during his trial ART.INDF very
*ander verhaal opgedist: hij **zou** naar een*
different story dish.up.PTCP he shall.PST.SG to ART.INDF
kast gelopen zijn om er papier-en uit
cupboard walk.PTCP be.INF in.order.to there paper-PL out
te halen, die aantoon-den dat de schuld
to take.INF REL show-PST.PL COMP ART.DEF guilt
*gedelgd was. Op dat ogenblik **zou** [...] een*
redeem.PTCP be.PST.SG on that moment shall.PST.SG ART.INDF
agent zijn dienstwapen hebben getrokken.
officer his service weapon have.INF draw.PTCP
'However, he told a very different story during his trial: **he said** he walked to a closet to pull out some papers that showed the debt was re-deemed. At that moment, **he said**, an officer had drawn his service weapon.' [CONDIV-BE, hbvl1.txt]

As to the evidential source, it can be remarked that reportive *zou* is compatible with both concrete, identifiable sources that are mentioned in the context (40) and with more general, unidentified sources (rumours, stories etc.). By contrast, the reportive uses of *moeten* (see Section 3.3.2) and *schijnen* (see Section 3.3.3.3) typically involve more general, non-identified sources.

3.4.3 The source preposition *volgens* 'according to'

The preposition *volgens* can be used to code the reportive source and matches the use of the English complex preposition *according to*. It is a high frequency item (CONDIV-NL: 6,682 tokens, CONDIV-BE: 10,038 tokens) that can be used in all the contexts sketched by Marín-Arrese, Carretero and Usonienė (this volume) for English *according to*. It thus not only codes the reportive source (see ex. 41a, in which *volgens* co-occurs with the reportive evidential *zou* + INF), but can also be used for direct perception (41b) or with inferential meaning (e.g. in ex. 41c for an inference on the basis of what someone – in this case: the addressee *you* – has said).

(41) a. **Volgens   een   Brits   zondagsblad**
      according.to ART.INDF British   Sunday newspaper
      zou   Prins   William helemaal   geen   zin
      shall.PST.SG   prince William absolutely no   liking
      hebben   in   de   troon
      have.INF in   ART.DEF.SG.C throne
      '**According to a British Sunday newspaper**, Prince William would not be interested in the throne.'   [CONDIV-BE,hbvl1.txt]

   b. *Ik   had   het   meisje   nooit   gezien*
      I   have.PST.SG ART.DEF.SG.N girl   never   see.PTCP
      *maar   **volgens**   **het**   **schilderij**   moet*
      but   according to ART.DEF.SG.N painting   must.PRS.SG
      zij   een   mooi-e   verschijning   zijn.
      she.NOM   ART.INDF beautiful.SG.C appearance   be.INF
      'I had never seen the girl but **according to the painting** she must be a beautiful appearance.'
                  [http://www.engelfriet.net/Alie/Gastenboek/koopmans.htm]

   c. *ik   had   die   indruk   wel*
      I.NOM   have.PST.SG that   impression   really
      volgens   wat   je   vertel-t
      according.to what   you   tell-PRS.3SG
      'I did have that impression **on the basis of what you tell**'
       [http://www.deverdwaaldeooievaar.be/forum/viewtopic.php?f=13&t=3819&start=45à]

In the case of reportive evidentiality, the evidential source *volgens* refers to can be a concrete written source (as in ex. 41a above), one or more persons (42a, repeated from the first part of ex. 21b) or more general hearsay, common belief or rumors (42b).

(42) a. ***Volgens*** ***de*** ***onderzoeker-s*** *zou-den* *drankmisbruik*
according.to ART investigator-PL shall-PST.PL alcohol abuse
en *te* *hog-e* *snelheid* *de* *oorzak-en*
and too high-SG.C speed ART.DEF.PL cause-PL
ge-wees-t *zijn* *van* *het* *ongeval.*
PTCP-be-PTCP be.INF of ART.DEF.SG.N accident
'**According to the investigators**, alcohol abuse and speeding were
the causes of the accident.' [CONDIV-BE, hbv11.txt]
b. *Justine Kasa-Vubu [...], die* ***volgens*** ***hardnekkig-e***
Justine Kava-Vubu REL according.to persistent-PL
gerucht-en *ontslag-en* *is* *of* word-t
rumor-PL dismiss-PTCP be.PASS.PRS.3SG or PASS-PRS.3SG
'Justine Kasa-Vubu, who **according to persistent rumors** has been
or will be dismissed.' [CONDIV-BE, hbvl2.txt]

3.4.4 The hearsay particle *('t) schijnt*

The hearsay particle *('t) schijnt*, which is a typical feature of Belgian colloquial (spoken) Dutch, has been discussed in Section 3.3.3.3. It has reportive meaning only.

3.5 Some notes on diachrony

The diachrony of most of these items has not been investigated in great detail. With respect to the inferential adverbs, for instance (e.g. *kennelijk*, *blijkbaar*) it is unclear since when and in which contexts they have developed reportive readings.

An interesting observation pertains to the fact that the etymology of the verb of appearance *blijken* reveals a direct connection with the other appearance verb *schijnen*: both verbs originally predicated over subjects that shine or glimmer, i.e. from which emanates a particular visual effect on an observer. In example (43a) *blijken* predicates over eyes that shimmer like glimmering coal, in (43b) *schijnen* is used in combination with the subject *carbonkelsteen* 'carbuncle', which is a kind of gem. The third verb *lijken* expresses resemblance in its lexical reading (*Ze lijkt niet op haar zus* 'She does not resemble her sister'), and as such also refers to visual information as well.

(43) a. *oghen die **bleken** gelijc colen die sijn ontsteken*
(*Lanc.* II, 29320, Flanders,1301–1400)
'eyes that shine like glimmering coal'

b. *Een carbonkelsteen, die so claer omtrent hem **sceen*** (Bloeml. 1, 184, 81)
[example from Vliegen 2011a:126]
'a carbuncle that **was shining** so clear around'

With respect to the various construction types associated with the verbs of appearance, there is no consensus in the literature regarding their development. Whereas De Haan (2000) assumes that the complement construction *het schijnt dat* arose quite late, Vliegen (2011a) shows that instances can be found as early as the 14th century. It seems that no clear developmental path can be distinguished on the basis of the available corpus data.

Regarding the reportive *zou* + INF-construction, Harmes (2017) argues that reportive instances of this construction can already be found in the oldest stages of Dutch. Typical of the early instances is an explicit characterization of the reportive source in the near context. In present-day Dutch, such an explicit reference to the reportive source is not necessary anymore, but it is still the preferred option (Harmes 2017), in view of the fact that it disambiguates the many possible readings of *zou* + INF. This is to some extent reminiscent of evidential *sollen*, the initial uses of which were found in subordinate clauses dependent on a matrix *verbum dicendi* (cf. Mortelmans and Stathi, this volume).

Corpora

CONDIV: 'Convergentie/divergentie en standaardisering/substandaardisering in Nederland en Vlaanderen'
CONDIV-BE = Belgian part
CONDIV-NL = Netherlandic part https://wwwling.arts.kuleuven.be/qlvl/ToolsTraining.htm
CGN: Corpus Gesproken Nederlands - CGN (Version 2.0.3) (2014) [Data set]. Available at the Dutch Language Institute: http://hdl.handle.net/10032/tm-a2-k6

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Tanja Mortelmans and Katerina Stathi

4 Evidentiality in German

4.1 Introduction

German, just like English and Dutch, has no obligatory grammatical category of evidentiality, which means that the realizations of the semantic functional domain of evidentiality are mostly lexical and typically optional. Despite this optionality, a remarkably large inventory of expressions is used to refer to a source of information, among which modal verbs (e.g. *sollen* 'be said to', *müssen* 'must', *wollen* 'claim'), SEEM-type verbs (*scheinen* 'seem'), sentence adverbs (e.g. *offensichtlich* 'obviously', *augenscheinlich* 'visibly') and prepositions referring to reportive sources (*laut*, *zufolge*, *nach* 'according to'). This broad category of evidential expressions often also conveys epistemic meanings, or more generally, meanings related to the expression of speaker stance and commitment, to which we will also pay some attention.

The chapter is organized as follows. Section 4.2 presents an overview of the main evidential markers in German that will be addressed. Section 4.3 focuses on inferential markers, among which the wide range of inferential adverbs, the SEEM-type verb *scheinen* as well as the inferential uses of the modal auxiliary *müssen*. Section 4.4 describes reportive units: adverbs, modal verb constructions and adpositions. Finally, Section 4.5 provides a brief overview of diachronic issues.

4.2 Overview

In general, evidentiality in German is expressed by non-morphological means, the only exception being the subjunctive (typically the present subjunctive) which codes indirect speech (see Aikhenvald 2004; for a more elaborate discussion of this topic see Diewald and Smirnova 2010, 2013). Constructions with the modal auxiliaries *sollen* 'shall' and *müssen* 'must' in combination with a bare infinitive express either reportive (in the case of *sollen*) or inferential (in the case of *müssen*) evidentiality. The status of modal *wollen* 'will, want' with an infinitive as a marker of reportive evidentiality is somewhat contested (see Diewald and Smirnova 2010; Vanderbiesen 2014); this will further be discussed in Section 4.3.2. Evidential meaning is also expressed by the verb *scheinen* 'seem', mainly when it is used in combination with a *zu*-infinitive (see Section 4.2.3). A number of sentence adverbs like *anscheinend*, *augenscheinlich*, *offensichtlich*,

offenbar, *scheinbar* (mainly markers of inferential evidentiality) and *angeblich* (expressing reportive evidentiality) add to the evidential repertoire in German; they will be discussed in Sections 4.3.1 and 4.4.1. Prepositional phrases introduced by *laut*, *zufolge* and *nach* 'according to' code the source of evidence and will therefore also be given some attention. Interestingly, indirect-indifferent evidential expressions seem to have developed to a somewhat lesser extent in German than in the closely related language Dutch. Thus, *scheinen* (in its evidential uses) is mainly inferential, whereas its Dutch counterpart *schijnen* functions either as an indirect-indifferent evidential or as a clear-cut reportive. The same holds for inferential *müssen* + INF, which has not developed reportive readings in German, unlike its Dutch counterpart *moeten*, which can be used with both inferential and reportive meaning.

The verbs of perception *sehen* 'see', *hören* 'hear' and *fühlen* 'feel' can be used to encode direct evidentiality. As markers of evidentiality, they scope over propositions and thus typically occur as complement-taking predicates and in parenthetical constructions (*sehe ich* 'I see', *höre ich* 'I hear'), among other things (see Whitt 2010). However, since constructions with verbs of perception do not seem to strictly obey Anderson's criterion that evidential markers are "not themselves the main predication of the clause, but are rather a specification added to a factual claim about something else" (Anderson 1986: 274f.), we will not pay further attention to such constructions in this paper.

4.3 Inferentials

Inferential evidentiality is expressed by adverbs (see Section 4.3.1), the modal verb construction *müssen* 'must' + INF (see Section 4.3.2), and the construction with the German SEEM-verb *scheinen* + *zu*-INF (see Section 4.3.3).

4.3.1 Inferential adverb(ial)s

There are six main evidential adverbs in German: *anscheinend*, *augenscheinlich*, *scheinbar*, *sichtlich*, *offensichtlich* and *offenbar*, which can be translated as 'obviously, apparently, seemingly'. These adverbs indicate a source of evidence as part of their meaning and not just as a pragmatic overtone (cf. Axel-Tober and Müller 2017: 31). The adverbs are not equally frequent in German. Searches for

each item in the German reference corpus DeReKo[1] (IDS 2018) returned the following number of occurrences:

Table 1: Number of tokens of evidential adverbs in DeReKo.[2]

Adverb	Number of tokens in DeReKo
offenbar	1,243,892
offensichtlich	534,344
sichtlich	141,354
anscheinend	140,716
scheinbar	210,626
augenscheinlich	24,612

The adverb *offenbar* is the most frequent one and occurs more than twice as often as the second most frequent adverb *offensichtlich*. The adverb *augenscheinlich* is rather infrequent; it is restricted to learned registers. Axel-Tober and Müller (2017: 38) argue on the basis of experimental (rating) data that the adverbs *offenbar, offensichtlich, scheinbar,* and *anscheinend* are "underspecified with respect to the distinction between inference and report". However, the adverbs are shown to differ with respect to the degree of certainty for the evidence. Thus, it is crucial to illustrate the use of the individual adverbs in context. The following discussion proceeds from the most to the least frequent item and is based on a corpus-based analysis conducted on one hundred randomly selected tokens of each adverb.

The adverb *offenbar* is derived from the adjective *offen* 'open'. The typical use of *offenbar* is the expression of inferential evidentiality. In particular, the corpus data suggest that the inference is based on reasoning (with or without some visual evidence), other types of witness, knowledge, and conjecture. This evidence is normally mentioned in the immediate context of *offenbar*, as illustrated in the following typical example:

---

1 Version DeReKo-2018-II (W – Archiv der geschriebenen Sprache).

2 Note that these hits concern the overall occurrence of these elements in the corpus, not their use as evidentials only. The following discussion is based on a sample of 100 random hits for each adverb. Note that some of these adverbs, e.g. *anscheinend*, may also be used as a reportive evidential (cf. Section 4.4).

(1)   *Der*   *45-Jährige*   *war*   *am*   *Samstag*
      ART.NOM.SG.M   45-year-old   be.PST.3SG   on   Saturday
      gegen 3.30   *Uhr*   *mit*   *seinem Drahtesel*   *geradewegs*
      around 3.30   o'clock with POSS   bike   straight
      in   *den*   *Mittellandkanal*   *geradelt.*   ***Offenbar***
      in   ART.ACC.SG.M Midland Canal   drive.PTCP   apparently
      funktionier-t-e   *sein Licht plötzlich*   *nicht*   *mehr,*
      function-PST-3SG POSS light suddenly NEG   more
      woraufhin   *er*   *vom*   *Weg*   *abkam.*
      whereupon he from.the road   go.off.PST.3SG
      'The 45 year old had cycled right away into the Midland Canal on Saturday at about 3.30. [...] **Apparently**, his light did not function any more, whereupon he went off the road.'
                             [BRZ13/JAN.04559 Braunschweiger Zeitung, 14.01.2013]

(2)   *Volkswagen*   *kann sich*   ***offenbar***   *nur*   *noch*
      Volkswagen   can   REFL apparently   only   once.more
      selbst Konkurrenz machen.   *Markenintern*   *mausert sich*
      REFL competition make.INF   brand.internally evolves REFL
      nämlich der   *Tiguan*   *zum*   *Golf-Jäger*   *Nummer 1.*
      namely ART.M.NOM.SG Tiguan to   Golf-Hunter number one
      '**Apparently**, Volkswagen are their own competitors. Within the company, the Tiguan advances to the number one chaser of the Golf.'
                             [BRZ13/JAN.02434 Braunschweiger Zeitung, 08.01.2013]

In (1) *offenbar* expresses the inference that the light of the man's bike was defective. This inference is based on the knowledge of the facts by the speaker, on the basis of which he infers something. In (2) the inference that Volkswagen are their own competitors is based on the factual knowledge that the Tiguan model sells almost as well as the Golf. As these examples suggest, *offenbar* does not express direct visual evidence, as its original meaning ('open, openly'; see also Section 4.4) might suggest, but has specialized to indirect evidence (see also *offensichtlich*).

    A similar behavior is observed for *offensichtlich*, which is less frequent than *offenbar* (cf. Table 1). Like *offenbar*, it is derived from the adjective *offen* 'open' and it is used to express inference based on factual evidence. Contrary to *offenbar*, *offensichtlich* may be modified by the adverb *ganz* 'quite, completely' or by *allzu* 'all too'. This combination shows that the meaning of *offensichtlich* remains rather transparent. Typical examples are given in (3)–(5):

(3) *Der   Schauspieler hat   **offensichtlich** Übung,*
ART.NOM.SG.M actor   have.PRS.3SG obviously   experience
nimm-t   die   hingereicht-en Kamera-s und
take-PRS.3SG   ART.ACC.PL   offered-PL   camera-PL and
fotografiert   sich   und die   – meist   weiblich-en –
photograph.PRS.3SG   REFL   and ART.ACC.PL   mostly   female-PL
Fan-s   mit   ausgestreckt-em   Arm.
fan-PL with   stretched-DAT.SG.M   arm
'**Obviously**, the actor is experienced, he takes the cameras that are of-
fered and takes a photo of himself and his mostly female fans with a
stretched arm.'   [BRZ13/JAN.04567 Braunschweiger Zeitung, 14.01.2013]

(4) *"**Offensichtlich** hat   uns   eine   Grippewelle*
obviously   have.PRS.3SG   we.ACC   ART.F.NOM.SG flu epidemic
erreicht",   <stell-t-e>   Pesicka   <fest>. Denn   kurzfristig
reach.PTCP   assert-PST-3SG Pesicka   since   at.short.notice
melde-t-en   sich   auch   Julius Henneke und Thomas Retzlaff
report-PST-3PL REFL   too   Julius Henneke and Thomas Reztlaff
krank, beide   waren   fest   eingeplant für   die
sick   both   be.PST.3PL definitely plan.PTCP for   the
Partie   bei   Aufstiegsfavorit   Alfeld.
game   at   favorite.for.ascent   Alfeld
'**Apparently**, a flu epidemic has reached us', Pesicka remarked, since
both J.H. and T.R. called in sick at short notice; both were set for the
game against Alfeld, the favorite for ascent.'
[BRZ13/JAN.10999 Braunschweiger Zeitung, 29.01.2013]

(5) *Viele   nutzen   die   Gelegenheit <u>ganz</u> **offensichtlich***
many   use.PRS.3PL ART.F.ACC.SG occasion   very   obviously
für einen   Sonntagsspaziergang – denn das   Wetter
for ART.M.ACC.SG   Sunday walk   since ART.NOM.SG.N   weather
war   ja   durchaus   okay.
be.PST.3SG PTC   really   okay
'<u>Quite</u> **obviously**, many people take the opportunity for a Sunday walk,
since the weather was quite okay.'
[BRZ13/JAN.07873 Braunschweiger Zeitung, 21.01.2013]

In (3) the speaker infers from direct observation – the ease with which the actor
takes photographs – that he must be experienced in photography. In (4) the
speaker infers from factual evidence – two players have called in sick – that the
wave of flu has reached his team. Finally, in (5) the speaker infers that many

people went for a walk on Sunday based on visual evidence that the weather was fine. Thus, *offensichtlich* is not restricted to inferences triggered by visual evidence but also occurs with other triggers. Nevertheless, the original meaning of both *offenbar* and *offensichtlich*, which relates to something being openly visible, persists: Axel-Tober and Müller (2017: 38) found out that these two adverbs are judged to be more acceptable when the source of evidence has a higher certainty, i.e. they tend to be related with strong evidence. The authors thus propose the paraphrase 'There is clear evidence that p' (Axel-Tober and Müller 2017: 39). Hence, it is not surprising that contexts in which visual evidence is involved as trigger for inference prevail in the data.

The adverb *sichtlich* 'visibly', which originates from the Middle High German adjective *sihtlich* 'visible', is another adverb that has its origin in an expression of visual perception. In present-day German it is no longer used with this meaning but refers to inference based on some (usually visual) evidence. Example (6) illustrates the use of this adverb:

(6) *"Jetzt   mach'   schon   das   verdammte   Foto"* [...],
     now   take.IMP   PTC   ART.ACC.SG.N   damned   photo
     *<fuhr>   der   94-Jährige   **sichtlich**   genervt*
     attack.PST.3SG   ART.M.NOM.SG   94-year-old   visibly   irritated
     den   Bildreporter   <an>.
     ART.ACC.SG.M   Bild reporter
     ''Now take the damned photo', the **visibly** irritated 94-year-old attacked the reporter of Bild [German newspaper].'
                                   [L15/JUL.01347 Berliner Morgenpost, 12.07.2015]

Another evidential adverb is *scheinbar* 'seemingly'. This adverb can be used in a non-evidential sense relating to false belief or impression; cf. (7) and (8). In (7) the record which was seemingly unbeatable was indeed beaten in reality. Example (8) is about a contradiction that turns out not to be one.

(7) *Denn   der   **scheinbar**   unknackbare   Rekord*
     since   ART.NOM.SG.M   seemingly   unbeatable   record
     von   anno dunnemal   wurde   um   9   Minuten
     from   the.year.one   become.PST.3SG   about   nine   minutes
     überboten   und   ist   damit   Geschichte.
     surpass.PTCP   and   be.PRS.3SG   thereby   history
     'Since the **seemingly** old unbeatable record was surpassed by 9 minutes and is therefore history.'
                                   [BRZ13/FEB.07275 Braunschweiger Zeitung, 22.02.2013]

(8)　*Das*　　　*ist*　　　<u>*nur*</u> **scheinbar** *ein*　　　*Widerspruch*
　　DEM.NOM.SG.N be.PRS.3SG only seemingly ART.NOM.SG.M contradiction
　　'This is only **seemingly** a contradiction.'
<div align="right">[BRZ13/MAR.04512 Braunschweiger Zeitung, 12.03.2013]</div>

However, *scheinbar* has come to be employed as synonymous or instead of
anscheinend 'apparently' from the 19th century (Dieckmann 2006: 6); in this
case it expresses that according to the speaker's belief a state of affairs holds
and there is some evidence that this is indeed the case. This sense is illustrated
in (9). In this example, the speaker infers that the animal, a hedgehog, has re-
covered. This inference is based on the evidence that the weight of the animal
has tripled.

(9)　*Das*　　　*Tier*　*hat*　　　*sich* **scheinbar** *gut*　　*erholt.*
　　ART.NOM.SG.N animal have.PRS.3SG REFL apparently well recover.PTCP
　　Wog　　　*es kurz*　　*nach seiner Aufnahme etwa 250 Gramm,*
　　weigh.PST.3SG it shortly after POSS admission about 250 grams
　　hat　　　*es*　*sein jetziges*　*Gewicht mit*　*848 Gramm*
　　have.PRS.3SG it POSS present　weight　with　848 grams
　　mehr als　　*verdreifacht.*
　　more than　triple.PTCP
　　'**Apparently**, the animal has recovered. Whereas it weighed about 250
　　grams after its admission, its weight has more than tripled and is now
　　848 grams.'　　　[BRZ13/JAN.01750 Braunschweiger Zeitung, 07.01.2013]

Thus, *scheinbar* is used to refer to a situation which according to the speaker's
belief is true and which has a high probability of being true. This epistemic
sense of *scheinbar* is in contrast to its original sense ('false belief or impres-
sion'), since it implies a high degree of certainty and a higher degree of proba-
bility that the state of affairs actually holds.

　　The adverb *anscheinend*, which is used exclusively as a sentence adverb in
present-day German (Dieckmann 2006: 2; Axel-Tober and Müller 2017: 16) main-
ly expresses inferential evidentiality, typically based on visual evidence. This
evidence is frequently given in the context; this leads to the overtones of rela-
tively high certainty that a state of affairs holds. Typical examples are given in
(10)–(11):

(10)　*Später pack-t-e*　　*ihn* **anscheinend** *das*　　　*schlechte*
　　later seize-PST-3SG him apparently ART.N.NOM.SG bad
　　Gewissen – *er melde-t-e*　*sich bei der*　　　*Polizei.*
　　conscience he report-PST-3SG REFL at ART.F.DAT.SG police

'Later, **apparently** he had bad conscience – he turned himself in to the police.'   [BRZ13/MAI.05802 Braunschweiger Zeitung, 16.05.2013]

(11) *Die   belgische Polizei ist   dem   Serienmörder*
ART.F.NOM.SG Belgian   police   be.PRS.3SG ART.M.DAT.SG serial killer
*[…] **anscheinend** auf die   Spur   gekommen.*
       apparently   on   ART.F.ACC.SG trace   come.PTCP
Flämische Zeitungen   berichte-t-en   gestern, ein
Flemish   newspapers report-PST-3PL yesterday ART.M.NOM.SG
Tatverdächtiger   sei   festgenommen   worden.
suspect   be.PRS.SBJV.3SG arrest.PTCP   become.PTCP
'The Belgian police have **apparently** tracked down the serial killer.
Flemish newspapers reported yesterday that a suspect was arrested.'
                        [A97/APR.00267 St. Galler Tagblatt, 24.04.1997]

In (10) the speaker infers that the person sought by the police had a bad conscience from the fact (the evidence) that he turned himself in to the police. In (11), the speaker infers that the Flemish police have found the serial killer. This is inferred on the basis of what was written in the newspaper. Note that *anscheinend* in this example could also be interpreted as reportive, as there is an explicit reference to a reportive source. This is in line with Axel-Tober and Müller's (2017) findings that the adverbs discussed in this section are underspecified with respect to evidence and that they can also occur in contexts of reportive evidence. Axel-Tober and Müller (2017: 38) also show that *scheinbar* and *anscheinend* are rated better in low certainty contexts but are also acceptable in high certainty contexts. The lower degree of certainty may be related to the persistence of the original meaning of *schein-* 'false impression, belief', which contrasts to the original meaning related to 'open' of *offen* and *offensichtlich*. However, the relation to the original meaning is weak, since both *scheinbar* and *anscheinend* extend to contexts of high certainty of the source of evidence and to reportive contexts.

This brings us to the last adverb, *augenscheinlich*. In 24 out of one hundred corpus occurrences *augenscheinlich* is used as an adjective with the meaning 'visible'. This shows that it remains rather transparent: being derived from the word for 'eye' (*Auge*) + *scheinen* 'seem', it retains semantic components of visible evidence. As an evidential adverb *augenscheinlich* expresses inferential evidentiality, but one which is characterized by a high degree of certainty as it is normally based on visual evidence. Again, the context is helpful in this regard, as shown in (12); the police report that they inferred from visual evidence that the driver had drunk alcohol.

(12) *Da   der   Mann   **augenscheinlich** alkoholisiert*
      since ART.M.NOM.SG   man   visibly   drunk
      gewesen ist,   hat   die   Polizei – eigenen   Angaben
      be.PRF.3SG   have.PRS.3SG   ART.F.NOM.SG   police   own   statement
      zufolge –   einen   Test   vorgenommen.
      according.to   ART.M.ACC.SG   test   carry out.PTCP
      'Since, **visibly**, the man was boozed, the police made a test, according to
      their own specification.'
                          [BRZ13/FEB.08791 Braunschweiger Zeitung, 26.02.2013]

In summary, for the expression of inferential meaning German differentiates
between six adverbs. These are sentence adverbs that have scope over the prop-
osition. All adverbs share the property of expressing inference made on the
basis of some evidence (typically direct perception or general knowledge). How-
ever, this type of evidence is not specified. The adverbs show subtle meaning
differences that relate to the persistence of their original meanings but they can
also be used interchangeably. This is possibly the case because the degree of
certainty rather than the type of evidence seems to be a more reliable factor for
the compatibility of an adverb with certain contexts, and in general evidential
adverbs are more compatible with contexts of a high degree of certainty (Axel-
Tober and Müller 2017: 37f.). It may be for this reason that these adverbs may
also occur in reportive contexts.

4.3.2 Inferential modal verb constructions: *müssen* + INF

The modal verb *müssen* can have epistemic/inferential meaning when com-
bined with an infinitive. In fact, it is not easy to assess whether *müssen* + INF is
mainly epistemic, i.e. concerned with commitment or epistemic support, in the
sense of Boye (2012), or rather mainly evidential (inferential), i.e. concerned
with evidence and epistemic justification, again in the sense of Boye (2012), as
both kinds of meanings can be found in corpus data. Diewald (1999: 217) focus-
es on the epistemic component (which she terms 'deictic') in characterizing the
meaning of German *müssen* + INF primarily in terms of likelihood, probability
and certainty. Note also that Diewald and Smirnova (2010) do not include
müssen as a member of the paradigm of evidential markers in German. Others,
however, explicitly address the inferential (and therefore evidential) meaning
component of *müssen* + INF, for instance Nuyts (2001) und Mortelmans (2012).
Ehrich (2001) also pays attention to the inferential meaning of *müssen*, which
she (somewhat confusingly) labels as 'epistemic', whereas the notion 'eviden-

tial' is reserved for hearsay (Ehrich 2001: 158). In this chapter, we will assume that in order to be characterized as mainly inferential, *müssen* + INF must rely on either external evidence (typically accessible via direct perception) or on general knowledge as basis for the inference made (see Squartini 2008); whether mere conjectures (which exclude external evidence and solely depend on the speaker's reasoning) should be termed inferential (as Squartini 2008: 930 proposes), is a matter of discussion.

The following corpus data show that inferential *müssen* + INF indeed relies on factual evidence, whereby the entire range from inference on the basis of direct perception to (typically logical) reasoning based on more general knowledge is covered.[3] In (13), there are concretely observable *Spuren* 'traces' which give rise to the inference that the terrorists have stayed in the city centre for a while. In (14), the inference that the theft must have occurred between 6pm and 6am is probably based on the objective fact that nobody was there in this time slot. And in (15), the inference that the airplane must have become uncontrollable very suddenly is a logical consequence of the observable fact that the pilot did not make it to the river Clyde. Note that in (15), the inferential reading is underscored or 'backed up' by the presence of the evidential adverbial *offenbar*.

(13) *Diesmal scheint die Adresse mehr als nur ein Briefkasten der Terroristen,*
      Christian Klar, Adelheid Schulz und Sigrid Sternebeck *müss-en*,
      Christian Klar, Adelheid Schulz and Sigrid Sternebeck   must-PRS.3PL
      sich,   wie   die   Spur-en   zeig-en,   zumindest
      REFL   as   ART.NOM.PL   trace-PL   show-PRS.3PL   at least
      zeitweise   mitten   in   der   City
      temporarily   in the middle of   in   ART.DAT.SG.F   city
      aufgehalten   haben
      stay.PTCP   have.INF

---

3 The examples discussed in this section were found by means of three searches in DeReKo. Combinations of inferential *müssen* with *offenbar* and *offensichtlich* were found by means of the search strings [&müssen /w4 offensichtlich] (for *offensichtlich*) and [&müssen /w4 offenbar] (for *offenbar*) in the corpus W-*öffentlich*, i.e. all word forms of *müssen* within a distance of four words from *offensichtlich* or *offenbar* were searched. The results were randomly restricted to 100 instances for each combination. A third search made use of the preference of inferential *müssen* for perfect infinitives (see Diewald 1999: 218); in this case the tagged C-*öffentlich* corpus was searched with the search string [&müssen /s0 MORPH(V PCP PERF) /+w1 haben], i.e. all word forms of *müssen* whereby in the same sentence a past participle immediately followed by the word form *haben* occurs. This yielded 19,181 hits, out of which 100 were randomly selected. In total then, 300 occurrences of *müssen* were taken into account.

'This time the address seems to be more than a mere mailbox for the terrorists, Christian Klar, Adelheid Schulz und Sigrid Sternebeck **must** have stayed – as the traces show –in the middle of the city at least temporarily.'

[M07/FEB.03119 Mannh. Morgen, 13.02.2007]

(14) *Mit Hilfe des Nudelholzes verschafften sich die Täter [...] Zugang zum Fahrzeug und entwendeten einen gelben Motor-Trenner und einen grünen Verdichter der Firma Wacker. [...]*

Die	*Tat*	***muss***	*sich*	*zwischen*	*Montag*
ART.F.NOM.SG	action	must.PRS.3SG	REFL	between	Monday

18 Uhr	*und*	*Dienstagmorgen*	*6 Uhr*	*ereignet*	*haben.*
18 hour	and	Tuesday morning	6 hour	happen.PTCP	have.INF

'Using the rolling pin, the perpetrators procured access to the vehicle and stole a yellow motor disconnector and a green compressor from the Wacker firm. [...] The action **must** have taken place between Monday 6 pm and Tuesday morning 6 am.'

[BRZ09/MAI.00039 Braunschw. Z., 02.05.2009]

(15)

Die	*zweimotorige*	*Maschine*	***muss***	*offenbar*
ART.F.NOM.SG	two-engine	machine	must.PRS.3SG	apparently

sehr	*plötzlich*	*unkontrollierbar*	*geworden*	*sein,*	*sonst*
very	suddenly	uncontrollable	become.PTCP	be.INF	otherwise

hätte	*es*	*der*	*Pilot*	*wenigstens bis*
have.SBJV.PST.3SG	it	ART.NOM.SG.M	pilot	at least	up to

zu-m	*Fluss*	*Clyde*	*geschafft.*
to-ART.DAT.SG.M	river	Clyde	make.PTCP

'The two-engine craft **must** <u>apparently</u> have become uncontrollable very suddenly, otherwise the pilot would have made it at least to the river Clyde.'

[NZS13/DEZ.00140 NZZ am Sonntag, 01.12.2013, p. 2]

In the following example – in which *müssen* + INF is combined with the 'harmonic' evidential adverb *offensichtlich* – it is the direct perception of the hammer and the chisel that gives rise to the inference that the victim must have been knocking a hole in a wall.

(16) *Der Tote wurde mit einem Hammer erschlagen, neben ihm liegt ein Meissel auf dem Boden.*

<u>*Offensichtlich*</u>	***muss***	*er*	*versucht*	*haben,*	*in*	*die*
apparently	must	he	try.PTCP	have.INF	in	ART.F.ACC.SG

Rückwand	*der [...]*	*Hütte*	*ein*	*Loch*	*in*	*die*	*Wand*
back wall	ART.F.GEN.SG	cabin	a	hole	in	ART.F.ACC.SG	wall

zu	*schlagen.*
to	knock.INF

'The dead man was killed by means of a hammer, next to him was a chisel on the floor. <u>Apparently</u>, he **must** have tried to knock a hole in the back wall of the cabin.' [SOZ12/DEZ.03171 Südostschweiz, 15.12.2012, p. 11]

The available evidence on which the inference is based, is generally so strong that the speaker can be assumed to express a high degree of epistemic commitment to the inference. However, this commitment is considerably reduced in the case of inferential *müsste* (which is a rather infrequently used past subjunctive form of the modal verb; cf. Diewald 1999: 224; Mortelmans 2000a; Baumann 2017: 294–296). Baumann (2017) argues that this use of *müsste* is prospective, as it expresses an expectation (*Erwartung*), i.e. "durch Evidenz bedingte Annahme unter Vorbehalt der Bestätigung im eigenen Erleben" ('an evidence-based assumption subject to confirmation in one's own experience'). Example (17) illustrates this use.

(17) *[...] aber bis zum Wettkampf sind es noch einige Tage.*

Da	***müsste***	*ich*	*die*
there	must.SBJV.PST.1SG	I.NOM	ART.F.ACC.SG

Zeitumstellung	*schon*	*verdaut*	*haben.*
clock change	already	digest.PTCP	have.INF

'[...] but there are still some days until the contest. I **should** have digested the clock change by then.' [BVZ07/NOV.00119 BVZ, 07.11.2007, p. 51]

German inferential *müssen* shares with its Dutch counterpart *moeten* + INF a tendency to express inferences with respect to states that are not immediately accessible to the speaker, for instance because they pertain to emotions, thoughts, experiences and impressions of other people (cf. Mortelmans, this volume). In combination with a perfect infinitive, almost half of the inferential instances in our data sample (19 out of 42) could be analyzed as belonging to this category. The following examples illustrate this use.

(18)
Trotzdem	***müss-en***	*die*	*Mensch-en*	*damals*
nevertheless	must-PRS.3PL	ART.NOM.PL	human-PL	at that time

ständig	*Schmerz-en*	*gehabt*	*haben.*
constantly	pain-PL	have.PTCP	have.INF

'Nevertheless, the people at that time **must** have been constantly in pain.'
[NUZ08/AUG.00797 NZ, 08.08.2008, p. 8]

(19)
0:3	*in*	*Fürth. Das*	***muss***	*den*	*05-Profis*
0:3	in	Fürth. That	must.PRS.3SG	ART.M.DAT.PL	05-Professionals

bleischwer   im   Magen   gelegen   haben   auf   der
heavy as lead   in.the   stomach   lie.PTCP   have.INF   on   ART.F.DAT.SG
Heimfahrt.
way home
'A 0:3 loss in Fürth. That **must** have been heavy to swallow for the 05-professionals on their way home.'   [RHZ07/AUG.19945 RZ, 21.08.2007]

(20) *Was **müss-en** meine Eltern den   Tag   verflucht*
      what must-PRS.3PL my   parents ART.M.ACC.SG day curse.PTCP
      haben,   an   dem   sie   mir   mein   erstes   Set
      have.INF   on which they.NOM I.DAT   my   first   set
      Lego Duplo   gekauft   haben.
      Lego Duplo   buy.PTCP   have.INF
      'How my parents **must** have cursed the day on which they bought me my first set of Lego Duplo.'
      [M08/FEB.08562 Mannheimer Morgen, 02.02.2008, p. 1]

(21) *Na,   **muss**   der   sich aber   über   die*
      gosh   must.PRS.3SG DEM.M.NOM.SG REFL PTC   about   ART.F.ACC.SG
      Rückkehr seiner   Taube   gefreut   haben!
      return   POSS.F.GEN pigeon   rejoice.PTCP have.INF
      'Gosh, he **must** have rejoiced at the return of his pigeon!'
      [RHZ08/FEB.01930 RZ, 02.02.2008]

An interesting observation pertains to the fact that indicative *müssen* + INF also occurs in absurd conclusions, i.e. does not necessarily imply that the speaker is committed to the truth of the inference (see also Mortelmans 2000b: 142). So, in the following examples, the speaker does not necessarily accept the existence of the gods or guardian angels, but wants to express his great admiration (in 22) or feeling of being extremely lucky (in 23).

(22) *Letztere fühlten sich [...] durch Lebenslust und Schönheit angezogen, beispielsweise Robert Louis Stevenson [...] und James A. Michener; der amerikanische Bestsellerautor schwärmte:*
      *„Die   Gött-er   **müss-en** diese   Insel*
      ART.NOM.PL god-PL   must-PRS.3PL DEM.F.ACC.SG island
      geschaffen   haben."
      create.PTCP   have.INF
      'The latter felt attracted by the love of live and beauty, for example Robert Louis Stevenson and James A. Michener; the American bestselling writer raved: "The gods **must** have created this island".'
      [A99/APR.26752 St. Galler Tagblatt, 17.04.1999]

(23)   *Ich*   **muss**   *wohl* *ein-en*   *Schutzengel*   *gehabt*
     I.NOM must.PRS.1SG PTC   ART-M.ACC.SG guardian angel have.PTCP
     haben,   *der*   *mich* *in*   *letzter*   *Minute*   *gerettet* *hat.*
     have.INF   REL   I.ACC in   last   minute   save.PTCP have.PRS.3SG
     Richtig realisiert habe ich das bis heute nicht, was ich damals für einen
     [sic] *Glück hatte.*
     'I **must** have had a guardian angel who has saved me at the last minute.
     Until now I haven't really realized how lucky I was at the time.'
                           [BRZ07/MAI.19981 Braunschw. Z., 15.05.2007]

Examples (22) and (23) also resemble examples (20) and (21) in that they express highly speaker-oriented "expressive" meanings that have exclamative or intensifying character. This is in line with the findings in Mortelmans (2012), where it is claimed (following Ulvestad 1984) that inferential *müssen* + INF is often found in contexts in which content is communicated that is important, serious, impressive, difficult, painful or somehow problematic for the speaker.[4]

4.3.3 Inferential constructions with verbs of *seeming*: *scheinen + zu*-INF

When used evidentially, German *scheinen* + zu-INF can be characterized as an inferential marker which is compatible with perceptual and more conceptual evidence types (Diewald and Smirnova 2010, see also Whitt 2015). Note that Diewald and Smirnova (2010) include *scheinen* among the core evidentials in German, together with *werden* 'will', *drohen* 'threaten' and *versprechen* 'promise'.

    In the following example (24), the inference expressed by *scheint + zu*-INF is based on perceptual (visual) evidence: on the basis of the way Reus looks, the writer concludes that he is not upset about the end of his relationship (and the further context makes clear that this is what the writer believes to be the case).

(24)   *Das*   *Liebes-Aus*   **schein-t**   *Reus* *aber*
     ART.N.NOM.SG love-end   seem-PRS.3SG Reus however
     nicht *aus*   *der*   *Bahn* *zu*   *werfen.*
     not   out of ART.F.DAT.SG road   to   throw.INF
     Äußerlich war ihm in den letzten Wochen nichts anzumerken.
     'The end of his relationship does not **seem** to upset Reus: on the outside
     one couldn't see anything on him in the last couple of weeks.'
                                     [HMP13/JAN.01636]

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4 This is in contrast with epistemic *werden* + INF-constructions, the function of which is typically addressee-oriented and aimed at reassuring or comforting the addressee (Ulvestad 1984).

In example (25), the inference is based on what somebody has said – if people demand your replacement, it can be inferred that your style is not very popular.

(25) *Dennoch* **schein-t** *Ihr Stil nicht bei alle-n*
yet   seem-PRS.3SG POSS style not with everone-DAT.PL
gut an<zu>kommen:
good on<to>come.INF
Freddi Lohse, Vize-Landeschef der Deutschen Polizeigewerkschaft, sagte nur wenige Monate nach Ihrem Amtsantritt, Sie würden sich „wie ein Elefant im Porzellanladen" verhalten, und forderte Ihre Ablösung!
'Still your style does not **seem** to be popular with everybody. Freddi Lohse, vice-president of the German police union, said only a few months after your inauguration that you behave like a bull in a china shop and demanded your replacement.'
[HMP13/JAN.01326 Hamburger Morgenpost, 18.01.2013, p. 10, 11]

In contrast to its Dutch counterpart, *scheinen* + *zu*-INF does not invite reportive readings (see Mortelmans 2016; 2017; this volume). Furthermore, the construction can still get a non-factual 'make-believe' interpretation (Diewald and Smirnova 2010: 184), which is not evidential, as the speaker cannot be taken to present evidence for a proposition. This is the case in example (26), in which the objects give the impression of floating in space, but they don't. By the same token, it only looks or feels as if time stands still in example (27). Speakers of Dutch would prefer *lijken* over *schijnen* in such a context (cf. Mortelmans, this volume).

(26) *Die Objekte* **schein-en** *im Raum zu schweben.*
ART.PL object.PL seem-PRS.PL in.the space to float.INF
'The objects **seem** to float in space.'
[https://locationinsider.de/breuninger-baut-digitale-services-aus/]

(27) *Die Zeit* **schein-t** *eine Weile still zu stehen*
ART.SG.F. time seem-PRS.3SG ART.SG.F while still to stand.INF
'Time **seems** to stand still for a while.'
[https://www.vamos-schuhe.de/magazin/weihnachten-im-elsass]

German *scheinen* + INF can also be accompanied by a dative experiencer, which again impacts on its evidential nature, as such uses are mostly interpreted as having an explicit subjectifier (rather than a purely evidential) function (see Cornillie 2007; Diewald and Smirnova 2010), i.e. the construction does not primarily denote an inference, but the speaker's opinion or impression marked as such. It can be paraphrased by 'I think', as in the following examples (28)–(30).

(28)   *Aber*   *genau*   *das*   **schein-t**   <u>*mir*</u>   *das*
         but   exactly that   seem-PRS.3SG   I.DAT   ART.N.NOM.SG
    Wesentlich-e   *an*   *der*   *Biographie*   *zu*
    essential-NOM.SG   about   ART.F.DAT.SG biography   to
    sein,   *was*   *Herr*   *Fuld*   *sagt.*
    be.INF   what   Mr.   Fuld   say.PRS.3SG
    'But exactly that **seems** <u>to me</u> to be the essential thing about the biography, that what Mr. Fuld is saying.'   [DWDS-LQ]

(29)   *und*   *da*   **schein-t**   <u>*mir*</u>   *der*   *Begriff*
    and   there   seem-PRS.3SG   I.DAT   ART.M.NOM.SG concept
    der   *Novelle*   *zu*   *eng*   *zu*   *sein.*
    ART.F.GEN.SG   short story   too   narrow   to   be.INF
    'and there the concept of the short story **seems** <u>to me</u> to be too narrow (i.e. I think that the concept 'short story' is too narrow)'   [DWDS-LQ]

(30)   *das*   **schein-t**   <u>*mir*</u>   *dann* *[...]* *wie*   *ein-e*
    that   seem-PRS.3SG   I.DAT then   like   ART-F.NOM.SG
    konjunktion   *zu*   *sein*
    conjunction   to   be.INF
    'that **seems** <u>to me</u> then to be something like a conjunction' (i.e. 'I think it's a conjunction')   [FOLK]

All these observations (no reportive interpretation, the possibility of make-believe readings, the combination with a dative experiencer) point to a lesser degree of conventionalization of *scheinen* + *zu*-INF as a genuine evidential construction compared to its Dutch counterpart. This is also mirrored by the frequency of construction types the verb *scheinen* appears in (see also Askedal 1998; Diewald 2000, 2001a; Vliegen 2011): the (less grammaticalized) copular use of *scheinen* still accounts for more than 30 % of all instances of the verb, as Table 2 shows (in Dutch, *schijnen* hardly occurs as a copula anymore). Note also that German *scheinen* occurs only infrequently in (wide-scope) complement constructions (introduced by either *dass* 'that' or *als (ob)* 'as if', 7.5 %), adverbial and parenthetical constructions (e.g. adverbial *wie es scheint* 'as it seems' and parenthetical *so scheint's* 'so it seems', 3.3 %), which is the type of construction in which Dutch *schijnen* most strongly unfolds its reportive potential.

    Finally, Van Bogaert and Leuschner (2015) demonstrate that the particle *scheint's/scheints* – which is said to be typical of southern (especially Swiss and Austrian) German popular journalese writing (Van Bogaert and Leuschner 2015: 115) – in addition to its inferential meaning also invites reportive readings, and as such seems to evolve into an indirect inferential marker.

Table 2: Construction types associated with German *scheinen*.[5]

scheinen	copula	+*zu*-INF	+COMP *dass, als ob*	adverb *wie es scheint* parenthetical *so scheint es*	particle *scheints*
N: 427	135 (31.6 %)	246 (56.6 %)	32 (7.5%)	14 (3.3 %)	0

This evolution from inferential to reportive meaning (see Wiemer 2010) seems to be restricted to the particle, though, and can hardly be claimed to be ongoing for the other constructions the verb *scheinen* appears in.

(31) *dass   sie   dort, **scheint-s**, sehr   tierlieb   sind*
      that   they   there seems-it   very   animal-friendly be.PRS.3PL
      'that the people there, **according to hearsay**, are very animal-friendly'
          [example and gloss taken from Van Bogaert and Leuschner 2015: 108]

4.4 Reportives

The second evidential function of evidential expressions in German is the reportive function, which is addressed in this section. Reportive evidentiality is encoded by adverbs (Section 4.4.1), modal verb constructions with *sollen* and *wollen* + INF (Section 4.4.2) and, finally, adpositions (Section 4.4.3).

4.4.1 Reportive adverbs

Reportive meaning is expressed by the adverb *angeblich*, which is equivalent to the English reportive adverbs *allegedly*, *reportedly* or *supposedly* (cf. Socka 2011; Wiemer and Socka 2017); see (32):

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5 These numbers are based on data taken from the ZEIT-corpus provided by the DWDS (www.dwds.de) and two regional newspapers, the (Northern German) *Hamburger Morgenpost* (HMP) and the (Southern German) *Nürnberger Zeitung* (NZ), both part of the Deutsches Referenzkorpus (DeReKo). For all three newspapers, only recent material published in 2013 was collected. For every subcorpus 75 random occurrences of *scheinen* (in all tense and person forms) were taken into account. Additional spoken data were collected from the FOLK-corpus (*Forschungs- und Lehrkorpus für gesprochenes Deutsch*) containing spoken material recorded between 2005 and 2012 and the *Korpus Gesprochene Sprache* on the DWDS-website (for more details on the data collection, see Mortelmans 2016).

(32)   *Jan   hat   **angeblich** sein   Portmonnaie   verloren.*
       Jan   have.PRS.3SG   reportedly   his   wallet   lose.PTCP
       '**Supposedly**, Jan lost his wallet.'   [from Wiemer and Socka 2017: 36]

Angeblich functions as a sentence adverb and has an inherent meaning component of hearsay (Axel-Tober and Müller 2017: 37; Wiemer and Socka 2017). By default, it carries epistemic overtones of doubt or distrust, which however can be cancelled in a specific context (see Socka 2011; Wiemer and Socka 2017 for discussion).

There are two other sentence adverbs, *vorgeblich* 'allegedly' and *mutmaßlich* 'presumably', which, however, are rather infrequent and restricted with respect to register and genre. Whereas *vorgeblich* is restricted to press and non-fiction, *mutmaßlich* is typical of crime reports (see Wiemer and Socka 2017 for details).

4.4.2 Reportive modal verb constructions: *sollen* + INF and *wollen* + INF

The modal verb construction *sollen* + INF (where *sollen* typically appears in its indicative form) can have reportive meaning. The reportive reading is relatively rare, though. In Diewald's (1999) corpus, it accounts for only 8 % of all uses of *sollen* (Diewald 1999: 217). A typical example of reportive *sollen* (discussed in Diewald and Smirnova 2013) is (32); this example is highly representative of reportive *sollen* + INF, as it illustrates the fact that *sollen* does not typically refer to a concrete communicative act with an identifiable speaker (see also Vanderbiesen 2015; 2016). With reportive *sollen*, evidence can consist of common beliefs, traditional knowledge, folkloric wisdom, etc.

(33)   *Schreck   und   plötzlich   auftretende   Sinneswahrnehmung*
       fear   and   suddenly   occurring   sensory sensation
       ***soll**   nach   weit   verbreitetem   <u>Glauben</u>*
       shall.PRS.3SG   according to widely   spread   belief
       Einfluß   auf   die   Entwicklung   des
       influence   on   ART.F.ACC.SG   development   ART.N.GEN.SG
       werdend-en   Kind-es   haben.
       growing-GEN.SG   child-GEN.SG   have.INF
        'Fear and sudden sensory sensation **is commonly believed to** influence the development of the growing embryo.'   [GE 1932]

Reportive *sollen* does not exclude the possibility of an identifiable personal source, though, as the following example illustrates. Here, reportive *sollen* + INF

is combined with the source preposition *laut* followed by a definite NP (the victim is known).

(34) *in   einem Satz,   den   er   <u>laut</u>   <u>sein-em</u>   <u>Opfer</u>*
      in   one   sentence REL   he   according to his-N.DAT.SG victim
      *gesagt   haben   **soll**.*
      say.PTCP have.INF shall
      'in a sentence which he **is said** to have spoken <u>according to his victim</u>'
         [http://www.fr.de/rhein-main/kriminalitaet/landgericht-frankfurt-von-
                          neonazis-vergewaltigt-a-347516]

Whether the modal verb construction *wollen + INF* can be considered an evidential marker, is a matter of considerable debate. Following Vanderbiesen (2014), who also presents an overview of the literature on this use of *wollen*, *wollen + INF* takes up an intermediate position between a reportive evidential and a reported speech marker. As such, *wollen + INF* is a hybrid marker, for which Vanderbiesen (2014) invents the label 'quoportive'. It differs from reportive *sollen* in that it always refers to an identifiable source (the sentence subject) and therefore typically presupposes an identifiable act of communication (and not just something rumor-like; in this sense, it resembles reported speech markers). At the same time, however, *wollen* is deictically oriented towards the current speaker, which is a typical trait of evidentials. This hybridity is apparent in example (35), which combines traits of reportive evidentials (the reported information is presented in non-finite form) and reported speech (the insertion of direct speech within quotation marks: *"alten Wein in jüngeren Schläuchen"*).

(35) *Die   Grün-en   **wollen**   nur   "alt-en   Wein*
      ART.M.NOM.PL green-PL   want.PRS3PL only   old   wine
      in   jüngeren   Schläuch-en"   geschmeckt   haben
      in   younger   skin-M.DAT.PL   taste.PTCP   have.INF
      'The Green Party claims to have only tasted "old wine in younger skins."'
                    [example and gloss taken from Vanderbiesen 2016: 80]

In line with Diewald and Smirnova (2013), we do not consider markers of indirect speech (typically the present subjunctive, sometimes also the past subjunctive in German) to be genuinely evidential. Typical of reported speech is deictic displacement, which implies that the current speaker's *Hic et Nunc* is no longer the vantage point from which the proposition is presented. Instead, the proposition is perspectivized from a secondary vantage point, and this is signaled by the present subjunctive (the past subjunctive mainly occurs in indirect speech when the expected present subjunctive formally coincides with the present

indicative, the past subjunctive in indirect speech thus replaces a morphologically ambiguous present subjunctive). For an elaborate discussion of the various viewpoint possibilities offered by markers of reported speech in German see especially Vanderbiesen (2016).

(36) *Schäuble*   *sag-t-e,*   *Gründlichkeit* **geh-e**   *vor*
Schäuble   say-PST-3SG   thoroughness go.PRS-SBJV.3SG before
Schnelligkeit
speediness.
'Schäuble said that thoroughness goes before speediness.'

[example discussed in Vanderbiesen 2016]

4.4.3 Source adpositions

Adpositions with reportive function are *zufolge*, *laut*, *nach* and *gemäß*. All of them can refer to the source of reportive evidence and hence translate in English by means of 'according to'. The main differences between them pertain to their frequency, the formal properties of the NP they occur in, and the type of source they evoke. In the following, we will mainly concentrate on evidential uses of *laut* and *zufolge*; the high-frequency item *nach* will be more or less excluded as it most often occurs with local and temporal meaning (*nach Frankreich* 'to France', *nach dem* Krieg 'after the war'), we will therefore only pay attention to *nach* in particular fixed combinations with exclusively reportive meaning (e.g. *nach eigener Aussage* 'according to his/her own statement', 1,958 hits in Tagged-C), *nach Aussage (von X)* 'according to (X's) statement', 3,568 hits in Tagged-C). The lower frequency item *gemäß*, the meaning of which is not restricted to reference to the source of evidence (it can also mean 'in accordance with'), will also not be discussed any further.

Table 3: Absolute frequencies of *nach*, *laut*, *zufolge* and *gemäß* in the Tagged-C-archive.

TAGGED-C-öffentlich [all public corpora available in the archive TAGGED-C]	
nach /+w0 MORPH(PREP)	2,567,336
laut /+w0 MORPH(PREP)	180,508
zufolge /+w0 MORPH(PREP)	43,132
gemäß /+w0 MORPH(PREP)	7,629

The preposition *laut* (governing both dative and genitive case, whereby the dative clearly prevails) is typical of written and – according to the Duden dictionary – rather official language. In the Tagged-C-corpus, it is about four times as common as *zufolge*. A corpus analysis of 200 random instances of *laut* and *zufolge* (taken from the Tagged-C-corpus, DeReKo) reveals that their usage preferences clearly differ. The preposition *laut* strongly prefers nominal phrases without an article or determiner (169 out of 200 tokens), as Table 4 makes clear.

Table 4: Distribution of the source preposition *laut* 'according to'.

	Ø DET proper NAME	Ø DET collective	Ø DET + communication	Ø DET – communication	+ DET	unclear
laut (n: 200)	85 (individual: 69; group: 16)	37	29	19	28 (def: 16; indef: 12	2

Laut most frequently (i.e. in 85 of 200 cases) occurs in combination with (inherently definite) proper names, referring to either a single person (69 out of 200, see example 37) or a group of persons (16 out of 200, see example 38), like the name of a newspaper, a company or a commission. Second most frequent is the combination of *laut* with a collective noun, again without an article, the most typical case being *Polizei* 'police' occurring 20 times in our sample (example 39). Other collective nouns include *Staatsanwaltschaft* 'the prosecutor's office' and *Bundesverfassungsgericht* 'federal constitutional court'.

(37) *Dringend* *erforderlich* *ist* **laut** <u>*Herrmann*</u>
urgently required be.PRS.3SG according to *Herrmann*
ein-e *Sanierung* *des* *marod-en*
ART-F.NOM.SG renovation ART.M.GEN.SG dilapidaded-GEN.SG
Bau-s.
construction-GEN.SG
'**According to** Hermann, a renovation of the dilapidated construction is urgently required.' [NUZ07]

(38) *Schlechtest-e* *Creme* *war* **laut**
worst-F.NOM.SG. cream be.PST.3SG according to
<u>*Stiftung Warentest*</u> *die [...]* *"Fatigue Fighter [...] Gel"*
foundation product testing ART.F.NOM.SG fatigue fighter gel
'**According to** *Stiftung Warentest*, the worst cream was the "Fatigue Fighter Gel".' [BRZ08]

(39) *Die   Ursache blieb   **laut**   Polizei ungeklärt*
ART.F.NOM.SG cause   remain.PST.3SG according to police   unclear
‘**According to** the police the cause remained unclear.’   [BRZ07]

Laut also occurs with bare nouns referring to communicative acts (e.g. *Mitteilung* ‘statement’, *Angaben* ‘Information’, or *Bericht* ‘report’) and with other more abstract nouns in which the immediate link with an act of communication is less prominent (*Plan* ‘plan’, *Konzept* ‘concept’, *Gesetz* ‘law’, *Radarfoto* ‘radar image’ etc.; see also example 41). In the latter case, *laut* means something like ‘in accordance with’ and ceases to be clearly reportive.

(40) **Laut**   *Polizeiangabe-n*   *hatte*   *der*
according to   police statement-PL   have.PST.3SG ART.M.NOM.SG
Mann   knapp 1,8 Promille   “intus” [...]
man   about 1,8 per mille   in his blood
‘**According to** police statements, the man had about 1,8 mg alcohol in his blood.’   [NON09/AUG.04030 NÖN, 10.08.2009, p. 5]

(41) **Laut**   *Weltrangliste*   *zählt*   *Andreas Buder*
according to   world ranking list count.PRS.3SG AB
zu   den   Top-4-Abfahrer-n   im
to   ART.M.DAT.PL top-4-downhill skiers-DAT.PL in.the
österreichisch-en   Skiverband
Austrian-m.DAT.SG   ski association
‘**According to** the world ranking list, Andreas Buder is one of the top 4 downhill skiers in the Austrian Ski Association.’
[NON07/NOV.10321 NÖN, 20.11.2007, p. 93]

Note that the main verb typically has indicative marking, i.e. the use of *laut* does not normally trigger explicit marking of indirect speech by means of the subjunctive. Comparing *laut* with *zufolge* (which mainly occurs as a postposition), it seems that the latter has a somewhat more diversified distribution than *laut*.

Table 5: Distribution of the source preposition *zufolge* ‘according to’.

	Ø DET proper NAME	+DET/+DEF person	+DET/+DEF group	+DET/+DEF + commu- nication	+DET/+DEF − commu- nication	+ DET/ −DEF	−DET/ −DEF	unclear
zufolge (n: 200)	31 indiv.: 19 group: 12	11	13	32	31	24	56	2

First of all, it does not combine as often with proper names as *laut* (31 out of 200 vs. 85 out of 200 for *laut*). And second, it occurs much more often in combination with a (definite or indefinite) determiner than *laut*, as in the following examples.

(42) *Aber* *auch* *Wiesbaden* *wird* <u>*dem*</u> <u>*Experte-n*</u>
but also Wiesbaden will ART.M.DAT.SG expert-DAT.SG
zufolge *ein-en* *Sprung* *nach* *vorn* *tun.*
according to ART.M.ACC.SG jump towards forwards make.INF
'But also Wiesbaden will jump forwards **according to** the expert.'
[RHZ07, Rheinische Zeitung 2007]

(43) <u>*Den*</u> <u>*Zeugenaussagen*</u> ***zufolge*** *begab*
ART.M.DAT.SG witnesses testimony according to go.PST.3SG
sich *die* *15-Jährige* *auf* *die* *Gleis-e,* *ehe*
REFL ART.F.NOM.SG 15-year-old onto ART.M.ACC.PL track-PL before
sie [...] *auf* *ein-en [...]* *Waggon* *kletterte* *und [...]* *in*
she onto ART.M.ACC.SG wagon climb.PST.3SG and in
den *15.000-Volt-Stromkreis* *geriet*
ART.M.ACC.SG 15,000-volt circuit get.PST.3SG
'**According to** the witnesses' testimony, the 15-year-old got onto the tracks before she climbed onto a wagon and got into the 15,000-volt circuit.' [NON09/JUN.01461 NÖN, 01.06.2009, p. 18]

(44) *Weiter-e* *36* *Prozent* *sind* <u>*der*</u> <u>*Studie*</u>
another-PL 36 percent be.PRS.3PL ART.F.DAT.SG study
zufolge *mit* *ihrer* *Situation* *zufrieden [...].*
according to with POSS.F.DAT.SG situation satisfied
'Another 36 % are satisfied with their situation, **according to** the study.'
[NUN08]

The source of the evidence can be definite and concrete (thereby referring to a person or a group of persons, to communicative acts or more abstract sources like *Studie* 'study', *Umfrage* 'survey', *Szenario* 'scenario', or *Statistik* 'statistics'), but may just as well be indefinite, quite abstract and vague. Quite striking in this respect is the high amount of indefinite plural sources with *zufolge* like *Gerüchte* 'rumors' (4 instances), *Schätzungen* 'estimations' (9 instances), *Angaben* 'information' (12 instances) or *Experten* 'experts' (5 instances) (in total: 56 instances).

(45) *Der* *Verursacher* *soll* <u>*Gerücht-e-n*</u>
ART.M.NOM.SG causer shall.PRS.3SG rumor-PL-DAT

zufolge	*das*	*Betonwerk*	*Koch*	*sein*.
according to	ART.N.NOM.SG	concrete plant	Koch	be.INF

'**According to** rumors, the cause is said to be the concrete plant Koch.'

[BVZ09]

This tendency is confirmed by frequency searches in the Tagged-C corpus for particular word combinations, as the following table 6 shows. Although *laut* is the preposition with the highest token frequency (recall that it is almost 4 times as frequent as *zufolge*), *zufolge* is preferred over *laut* when the source is maximally vague and unspecified. In the latter case, *nach* also frequently occurs in particular combinations. Interestingly, such vague and unspecified sources may trigger the use of reportive *sollen*, as in example (45).

Table 6: Frequent collocations with *nach*, *laut* and *zufolge*.

Tagged-C	*nach*	*laut*	*zufolge*
Gerüchten 'rumors'	52	65	731
Schätzungen 'estimations'	2311	328	895
eigenen Angaben 'own statements'	12 812	833	974
Medienberichten 'media reports'	1455	1035	1112

On the basis of its high frequency, the combination *nach Aussage* (3,568 hits) (and to a somewhat lesser extent *laut Aussage*; 810 hits) could be claimed to evolve into a new complex preposition with source semantics. It is striking that German seems to cater for such reportive expressions to a much larger extent than Dutch and English, which mainly have *volgens* and *according to*, respectively.

Finally, it should be noted that combinations of *laut* and *zufolge* with *mir* 'to me' are odd; neither *mir zufolge* nor *laut mir* occur with the meaning 'according to me (= in my opinion)' in the Tagged-C-corpus. This points to the fact that *laut* and *zufolge* are genuine (evidential) source prepositions which resist a subjectifier reading. Expressions like *meiner Meinung nach* 'in my opinion' or *ich glaube* 'I think' fulfil the latter function.

4.5 Notes on diachrony

Let us start with the development of the evidential meaning of the modal verb constructions.

The diachronic development of the so-called 'deictic' meanings of *müssen*, *wollen* and *sollen* has been described in great detail by Diewald (1999; 2001b; 2002) – whereby deictic must be understood as 'epistemic-inferential' (in the case of *müssen*) and 'reportive' (in the case of *sollen* and *wollen*).

For *müssen* + INF, it is assumed that the epistemic-inferential meaning has fully developed in Early New High German (16th century), first clear examples are found in texts written by Luther, as in the following example (taken from Diewald 1999: 401):

(46) *Drumb*   **musz**   *das*   *der* *heubt*   *teuffel*   *selb*
      therefore   must.PRS.3SG   that   the   chief   devil   himself
      gesagt   *haben*
      say.PTCP   have.INF
      'Therefore, the chief devil himself **must** have said that.'

<div align="right">[Luther Adel 103, 17]</div>

This inferential reading developed out of the earlier circumstantial (or: dispositional) reading of the verb 'must, have to'. Crucial in Diewald's account of the development of the epistemic/inferential meaning is a) the possibility of wide-scope (propositional) readings of the modal and b) the existence of a (semantically highly ambiguous) morphosyntactic context which gives rise to different conversational implicatures, among which we find the new epistemic-inferential reading. This so-called critical context consists of the modal verb with a dental suffix (allowing an interpretation both in terms of a past indicative and a past subjunctive) combined with *have/be* and a past participle (which is also ambiguous between an older 'resultative' reading and a newer purely temporal reading as a past infinitive). Both conditions are fulfilled in Middle High German: wide-scope readings of *müssen* are found as well as occurrences of *müssen* in the critical context, as in the following example (47) (taken from Diewald 1999: 400):

(47) *de*   *karakter* *â b c*   **muos-er**   *hân*   *gelernt*   *ê*
      the   letters   a b c   must.PST-he   have   learned   before
      'He had to have learned the letters/he has probably learned the letters.'

<div align="right">[Parz. 9, 453, 125f.]</div>

According to Diewald, an utterance like (47) allows multiple interpretations, among which a non-deictic circumstantial one (he had to have learned the letters, i.e. it was necessary for the subject to have learned the letters before something else could occur) and a 'deictic' one (it is probable that he learned them). In a later period, the ambiguity is resolved, as the earlier non-deictic and the

new epistemic-inferential readings attach to two different morphosyntactic contexts, such that the epistemic-inferential reading selects a finite form of the modal verb combined with a perfect infinitive (*muss gesagt haben* 'must have said'), whereas the non-inferential reading occurs in a new periphrastic construction of the modal verb combined with a simple infinitive (i.e. the pluperfect subjunctive form *hätte sagen müssen* 'have.SUBJ.PST say.INF must.INF'). This is in line with the fact that in present-day German, inferential readings of *müssen* still mainly occur with finite forms of the modal verb (present tense singular *muss*, plural *müssen*, occasionally with past subjunctive *müsste*) and show an outspoken preference for perfect infinitives.

For the development of reportive *sollen* and *wollen*, a similar scenario is sketched, although Diewald concedes that both verbs were also grammaticalizing into future markers, which delayed the development of the reportive meaning to some extent (Diewald 1999: 418; but see also Zeman 2013 for a critical discussion of *sollen's* future semantics). With respect to *sollen*, both wide-scope readings and occurrences of the modal verb in the critical context (sometimes even with a clear reportive reading) are already found in Middle High German texts.[6]

(48) *sölch ellen   was   ûf   in   gezalt:*
      such courage was   on   him   ascribed
      *sechs   ritter   **solt-er**   **hân**   **gevalt**** [...]
      six   knights shall.PST-he have.INF killed
      'Such a pugnacity was ascribed to him: **he was said** to have killed six knights.'   [Parzifal 4, 197, 17ff, after Diewald 1999: 420]

Still, Diewald notes that this use of *sollen* considerably differs from reportive *sollen* in present-day German. For one thing, present-day reportive *sollen* is exclusively tied to the present tense indicative form *soll(en)* and does not occur in the form *sollte(n)*. And second, present-day reportive *soll(en)* prefers main clause contexts, whereas the Middle High German occurrences are mostly found in subclauses introduced by verbs of thinking or speaking (e.g. *gezalt* in ex. 48). Apparently, *sollen* by itself could not unambiguously express the reportive reading in Middle High German, but depended on the presence of another explicit lexical marker in the context (i.e. a verbum dicendi) (Diewald 1999: 421). Interestingly, even in Early New High German, reportive *sollen* is still very often found in contexts with an introductory referring clause, as in (49) and (50) – the

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6 Zeman (2013: 358f.) notes that potentially reportive occurrences of *sollen* can even be found in Old High German, typically in subordinated contexts after verbs of saying and believing.

examples stem from the year 1609 and are discussed in Diewald (1999: 422), with reference to Fritz (1991: 34f.).

(49) ***Es ist die sage****/das vorgestern in 300. Reutter umb Gülich angelangt sein* **sollen**
‘**It is said** that the day before yesterday about 300 horsemen **are said** to have arrived in Gülich.’

(50) ***wie man sagt solle*** *der Graff […] das beste und schönste Silber-geschmeid… verschenckt […] haben*
‘**As one says** the count **is said to** have given away the best and most beautiful silver.’

Finally, the development of 'reportive' *wollen* is quite similar to the one of *sollen*. First, *wollen* is also involved in a number of other grammaticalization processes, which blocks its development as a clearcut reportive marker: future, reportive and volitive meanings can easily co-occur. Critical contexts with *wollen* are found in Middle High German. Again, they are claimed to be potentially highly ambiguous.

(51) *si*   **wolden**   *volkêren   ze   tôde   erslagen   hân*
they   want.PST people   to   death   beat.PTCP   have.INF
‘They **wanted** to kill people/people to be dead.’, or: ‘They **said/claimed** to have killed people.’   [NL 1893, 3, Diewald 1999: 425]

Following Diewald (1999), full grammaticalization of the reportive meaning is achieved when the formal opposition between an unambiguously reportive (finite *will/wollen* + past infinitive) and an unambiguously non-reportive structure (periphrastic *hat* + INF *wollen*) has unfolded, which is the case in the 16th century (Diewald 1999: 427).

Maché (2019) sketches a somewhat different scenario for the development of the 'epistemic' readings of the German modals (note that Maché discusses inferential *müssen*, reportive *sollen* and *wollen* under the denominator 'epistemic'). Crucial in Maché's account is the fact that early 'epistemic' uses (found to become more frequent only in Early New High German, the texts in Maché's corpus stem from 1567) select stative predicates as complements (most typically *sein* 'be', less frequently *haben* 'have'), i.e. predicates "which refer to a state which is not likely to change" (Maché 2019: 548). Such predicates are definitely odd in combination with non-epistemic (more precisely: circumstantial) modals, which typically select eventive predicates. It is thus the combination of a modal with a stative predicate that in Maché's account triggers the epistemic reading. Note that Maché stresses the fact that the past subjunctive seems to

facilitate an epistemic reading (Maché 2019: 543), which is again in line with Diewald's account (1999):

> the majority of epistemic modal verbs in earlier stages of German seem to be specified for the past. The use of the subjunctive might be an indicator of decreased commitment. [...] [I]t was demonstrated that the subjunctive of the past on modal verbs indicates that some of the premises on which the evaluation is based are not verified. (Maché 2019: 550)

The verb *scheinen* is attested from Old High German onwards (DWB, s.v. *scheinen*). In its original sense 'radiate, shine, glow', which is still in use, *scheinen* is used with subjects that denote entities that emit light like the sun, the stars, etc. Already in the earliest attested period, *scheinen* comes to be used with subjects denoting entities that reflect light such as metals and acquires the sense 'glow, sparkle'. In this sense, the verb is also used metaphorically in religious contexts, for example referring to angels. In a further semantic shift, *scheinen* loses the semantic components of shine and glow and is used to encode mere visual appearance, i.e. 'become visible', and further extended metaphorically to mean 'become apparent/clear'. These senses are illustrated in (52–56) (taken from Diewald and Stathi 2019: 187–189).

(52) *diu*　*sunne*　***scînet*** (1325)
　　　 the　　 sun　　 shine.PRS.3SG
　　　 'The sun **is shining**.'

(53) *unte*　***schinet***　　　*also*　*daz*　*golt.* (1200)
　　　 and　　 shine.PRS.3SG　 so　　 the　　 gold
　　　 'and so the gold **was sparkling**.'

(54) *der*　*uuinter*　*ist*　　　 *hina...*　*dîe*　*blûomon*
　　　 the　 winter　 be.PRS.3SG over　　 the　 flowers
　　　 schînent　　*in*　*alle*　*demo lante.* (1065)
　　　 shine.PRS.3PL　 in　 all　　 the　 country
　　　 'The winter is over ... the flowers **become apparent** in all the country.'

(55) *Rolland*　*sprach:*　　 *Er*　***scheinet***　　 *heldenmütig* (1816)
　　　 Rolland　 speak.PST.3SG he　 shine.PRS.3SG　 heroic
　　　 'Rolland spoke: "He **seems** heroic."'

(56) *Was*　*da*　***scheinte***　　 *mein*　*unglück*　　*zu*　*seyn.* (1684)
　　　 what　 there　 shine.PST.3SG POSS　 misfortune　 PTC　 be.INF
　　　 'What **seemed** to be my bad luck.'

(57) *Dieselmotor-e*   **scheinen**   *mit*   *Biodiesel*
      Diesel engine-PL   seem.PRS.3PL   with   biodiesel
      Problem-e   *zu*   *haben.* (2005)
      problem-PL   to   have.PRS.3SG
      'Diesel engines **seem** to have problems with biodiesel.'

The sense 'become visible/apparent/clear' then gave rise to a meaning of impression or false belief, especially in the copula construction; see (55). It is this sense that served as the catalyst for the development of the evidential meaning, in combination with its occurrence in the infinitive construction. According to Diewald (2001: 104) and Diewald and Smirnova (2010: 253), the infinitive construction was originally restricted to the verb *sein* 'be' (see ex. 56), which functioned as the copula. This construction must have served as the critical context in which the sense of impression gave rise to the evidential sense. However, as early as the 12th and 13th centuries, *scheinen* is already attested with other verbs in the infinitive construction (see Diewald and Stathi 2019).

Diachronically, *scheinen* occurs in five basic constructions, which remain rather stable: (a) as a full verb (see ex. 52), (b) as a copula (see ex. 55), (c) with a dependent clause (mainly introduced by *dass* 'that', i.e. 'it seems that …'), (d) with a *zu*-infinitive (see ex. 56 and 57), and (e) in a parenthetical expression (e.g., *so scheint es* 'so it seems', *wie es scheint* 'as it seems', etc.). During Old High German times, the full verb use is dominant. In Middle High German, the full verb use and the copula construction prevail. From Early New High German times, the full verb use declines, and a more even distribution of full verb, copula, and dependent clause construction are observed. It is also the time during which the infinitive construction becomes more frequent. In present-day German, the infinitive construction which expresses evidentiality is the most frequent use of *scheinen*, followed by the copula construction, which expresses mainly impression and false belief (for more details, cf. Diewald and Smirnova 2010, Diewald and Stathi 2019).

The diachronic development of the evidential adverbs is discussed in Axel-Tober and Müller (2017). The two adverbs *offenbar* and *offensichtlich* were derived from the adjective *offen* 'open', whereas *scheinbar* and *anscheinend* share the base *scīn-* 'shine, glow', just like the verb *scheinen* (see above). Among the adverbs discussed here, *offenbar* and *scheinbar* are the oldest; they are attested already in Old High German as *offanbāri* and *scīnbāri*, respectively. In OHG, expressions with *offan-* are used to refer to visual perception in the sense of 'open accessibility to perception, manifest, evident, clear' (Axel-Tober and Müller 2017: 13). Both expressions are used as adjectives, attributively and predicatively. It is not until the middle of the 18th century that *offenbar* becomes much

more frequent; the same occurs with *scheinbar* from the middle of the 19th century. The adverb *offensichtlich* is a new coinage; it is coined and becomes more widespread at the beginning of the 20th century. Finally, *anscheinend* goes back to the now fossilized present participle of the obsolete verb *anscheinen* 'appear'. Adverbial uses become more frequent from the second half of the 18th century (Axel-Tober and Müller 2017: 14f.).

The expressions developed from adjectives, which could be used attributively, predicatively, and they then developed into sentence adverbs. Their development thus involves a shift from adverbs of manner (that modify the verb) to sentence adverbs, with scope over the whole proposition. This development involves shifts that are typically found in grammaticalization processes (but may also occur independently), notably semantic bleaching (e.g. *offensichtlich* 'openly, clearly' > 'there is evidence that') and subjectification (speaker evaluation). This development was triggered by ambiguous contexts in which both a manner interpretation as well as an evidential interpretation were possible (see Axel-Tober and Müller 2017 for further details).

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Part III: **Language Profiles – Romance**

Patrick Dendale
5 Evidentiality in French

5.1 Introduction

French, just like English, German, Dutch, and other languages, does not have any obligatory evidential marker. Most units with an evidential function are lexical and are thus optional from the point of view of grammar. The first empirical descriptions of French units in which the terms *evidentiality*[1] or *evidential* were used can be traced back to the early nineties, to the study of a group of uses of the French conditional and the study of epistemic *devoir* 'must' (Dendale 1991). Before 1990, the units presented below as evidential were most often analysed in non-evidential terms using labels such as 'epistemico-modal', 'illocutionary', 'enunciative', 'argumentative', 'discursive', among others. From 1990 onwards, the search for French units with evidential meanings and/or functions increased. Dendale and Izquierdo's bibliography (2014) lists more than 180 studies (for the period 1991–2014) which explore, assess or contest the evidential status of a broad variety of French language units.[2]

The only grammatical marker in French with a clear evidential function is the conditional mood (or tense),[3] which marks hearsay when used in certain types of assertions and in yes-no intonation questions (Section 5.3.1). All other units with evidential functions are lexical ones. They are either verbs or verbal idioms, adverbs or adverbials, or prepositions; some of them are more conventionalized than others. Functionally, they are inferentials (Section 5.2), reportives (Section 5.3) or indifferent indirect markers (Section 5.4):[4]

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1 The French term *évidentialité* was introduced in linguistics by Vet (1988). Some French scholars use the term *médiatif* (coined by Lazard 1956), or the terms *médiativité* and *mediatisé*, coined later by Zlatka Guentchéva. For historical sketches on the introduction of the notion of *evidentiality* in French linguistics via the terms *évidentialité* and *médiatif/médiativité*, see Dendale and Izquierdo (2014) and Guentchéva (2014).

2 For the French conditional, compare e.g. Dendale (1993), where it is analyzed as an evidential, Abouda (2001), where it is analyzed as a non-commitment marker, and Rossari (2009), where it is analyzed as fundamentally non-evidential.

3 Most old grammars categorized the conditional as a mood. Most contemporary French linguists, however, consider it a tense, on a par with the other tenses of the indicative mood in French (présent, imparfait, passé simple, futur simple).

4 The selection of units presented in this contribution reflects in part choices and criteria imposed by the editor of the volume for reasons of internal consistency between the overviews of the different languages and a common policy regarding the recognition of evidentials. My

(1°) **Verbs and verbal idioms**:

(a) The most researched one is the semi-auxiliary verb[5] *devoir* 'must', in its epistemic use (Section 5.2.2.1). But the impersonal verb form *il faut que* of the verb *falloir* 'ought to, have to', meaning 'it must be the case that', is also a MUST-MARKER; it is always used as a complement-taking predicate (CTP) (Section 5.2.2.2). These have an inferential extension.

(b) Several SEEM-verbs. The most well-known are *paraître* 'appear' and *sembler* 'seem', which are used as copular verbs (followed by a predicative complement), as semi-auxiliary verbs (followed by an infinitive), as impersonal CTPs, and in parenthetical or prepositional constructions (*à ce qu'il paraît* 'as it appears', *à ce qu'il semble* 'as it seems'). Some are inferentials (Sections 5.2.3.1 and 5.2.3.2), while others are reportives (Section 5.3.2). There is also the idiom *avoir l'air* 'look like, seem', which can function either as a copula or a semi-auxiliary with inferential evidential uses (Section 5.2.3.3).

(c) Two semi-auxiliary verbs, *menacer de* 'threaten to' and *promettre de* 'promise to' (Section 5.2.4.1), and one copular verb, *s'annoncer* 'look' (lit. 'announce itself, be announced'), which evolved into markers of a specific kind of inferential evidentiality (Section 5.2.4.2).

(d) Several verbal idioms composed of a series of lexical verbs in the first or the impersonal third person, used parenthetically (sentence-final or sentence-medial) and with propositional scope:

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personal view is that there are a lot more units that deserve to be categorized as evidentials for French. Are not presented here, but analyzed as evidentials in some of my (and others') publications: *certainement (que)*, *sûrement, à coup sûr* 'surely' (lit. 'with certain blow'), *sans doute (que), sans aucun doute* 'without (any) doubt', *peut-être que* (lit. 'possibly that'), *à vue d'œil* 'visibly', *à vue de nez* and *au pif* 'by rule of thumb', *à ce que je vois* (lit. 'as I see'), *je parie (que)* 'I bet (that)', *croirait-on* 'it seems' (lit. 'one would think'), *c'est comme si* 'it is as if', *on lui donnerait facilement* 's/he seems' (lit. 'one would easily give him/her' + quantitative data), *quelque chose me dit que,* 'something tells me that', the adjectives *censé* 'supposed', *supposé, réputé* 'reputed', the conjectural future, the present perfect ("passé composé"), the imperfective simple past (imparfait) and others, whose evidential potential is still to be discovered (such as certain uses of opinion verbs (*je crois que,* 'I think that').

    If the literature in this article may appear a bit outdated in certain areas, this is because versions of this contribution were submitted from early 2017 onwards.

5 In French grammatical tradition, the only verbs considered to be real auxiliaries are *être* and *avoir*. Other types of verbs followed by an infinitive (called 'co-verbs' by Kronning) are normally termed 'semi-auxiliaries' if they have an abstract grammatical meaning, typically temporal, aspectual, modal or diathetical (see Kronning 2003 for a detailed study).

(i) idioms constructed with the SAY-verb *dire* 'say', especially the frequent *dit-on* 'some say, it is said' when used parenthetically (Section 5.3.5.1), expressing reportive evidentiality, and in its conditional form *on dirait/dirait-on* 'it looks like' (lit. 'one would say'), expressing inferential evidentiality (Section 5.2.4.3).

(ii) the verbal idiom *faut croire* '(it) appears, apparently' (lit. '(one) must believe'), composed of deontic *falloir* 'ought to, have to' in the third person impersonal, without the impersonal subject pronoun, and followed by *croire* 'think'. It expresses inferential evidentiality (Section 5.2.2.3).

(iii) the prepositional constructions *à ce qu'on dit* 'as is said', *à ce que j'ai entendu (dire)/selon ce que j'ai entendu (dire)* 'as I heard (people say)', constructed with SAY-verbs or HEAR-verbs, which all express reportive evidentiality (Section 5.3.5.2).

(2°) **Sentence adverbs and adverbials**, for which a complete inventory (and thus analysis) is still to be made. These include:

(a) Two adverbs ending in *-ible+ment*: *visiblement* 'visibly' and, much less frequently, *audiblement* 'audibly' (Section 5.2.1.1), expressing inferential (constructed evidentiality).

(b) A series of adverbs and adverbials morphologically derived from the adjectives *manifeste* 'obvious' and *apparent* 'apparent', or the nouns *apparence* 'appearance' and *évidence* 'evidence'. These are: *manifestement* 'manifestly, obviously', *apparemment* 'apparently', *selon toute apparence* 'to all appearances' (Section 5.2.1.2), *selon toute évidence/de toute évidence* 'obviously' (lit. 'according to all the evidence (we have)'), *à l'évidence* 'obviously' (Section 5.2.1.3), which all express inferential evidentiality.

(c) The adverbs *soi-disant*, *prétendument*, etymologically stemming from the SAY-verbs *dire* 'say' and *prétendre* 'pretend' (Section 5.3.3.1), and *censément* 'supposedly', etymologically related to an old THINK-verb 'purportedly' (Section 5.3.3.2), *censer* 'think, estimate' (Section 5.3.3.3). A variant of *soi-disant* is *soi-disant que*, which is both an explanation marker and a reportive marker (Section 5.3.3.1).

(3°) **Prepositions** (simple or complex ones) belonging to the ACCORDING TO-type, which, depending on the type of noun phrase they are combined with, express either reportive or inferential evidentiality: *selon*, *d'après*, *suivant* 'according to/on the basis of'. We will therefore treat these here as indifferent indirect markers (Section 5.4). *Pour* 'for', *suivant* 'according to' and *au(x)*

dire(s) de 'according to' (lit. 'according to the sayings of') (Section 5.3.4) always serve as reportive markers.

Except for a few highly frequent idioms like *paraît-il* 'it is said' or *dirait-on* 'it seems to be the case', there is no single language unit in French, as far as I can see, that is exclusively (or even mainly) dedicated to the marking of source of information. Most of the units presented in this overview are polyfunctional and/or polysemic, with only one of their uses that can be considered evidential. Often this is not even the primary or dominant use of the unit. So, it makes more sense to speak of the 'evidential use of a unit' (cf. Boye 2010: 291–292) than of an 'evidential unit'. *Visiblement,* for instance, is only evidential, in my analysis, when it is a sentence adverb, not when it is a manner adverb.

Some units presented above have not yet been the subject of in-depth (corpus-based) analyses, either from an evidential perspective, or from a non-evidential one. For those units, I will limit myself to a short comment on elements of their meaning that are relevant for evidentiality, on the basis of authentic examples. The examples I present in this study have been taken from linguistic studies on the respective units (indicated by *cited from*), from the text bases *frTenTen12* within *Sketch Engine* (contemporary French) and *Frantext*, and occasionally from other sources (e.g. dictionaries, a song, TV news, books). A dozen examples are constructed ones.

5.2 Inferentials

Inferential evidentiality is expressed by a series of sentence adverbs and adverbials (Section 5.2.1), as an extension of the epistemic use of two MUST-verbs (Section 5.2.2), by markers derived from SEEM-verbs (Section 5.2.3), by future-oriented semi-auxiliary and copular verbs derived from lexical communication verbs (Sections 5.2.4.1 and 5.2.4.2) and by markers derived from SAY-verbs in the conditional mood (Section 5.2.4.3).

5.2.1 Sentence adverbs and adverbial idioms

An important class of inferentials are adverbial markers (adverbs and adverbial idioms). Some of these are morphologically based on adjectives related to perception (visual or auditory), while others have other bases.

5.2.1.1 *visiblement* and *audiblement*

At least two adverbs ending in *-ible+ment*, with morphological bases from verbs referring to vision and hearing, have developed uses with propositional scope, which can be said to have an evidential function: *visiblement* 'visibly' and *audiblement* 'audibly'.[6] By far the most frequent is *visiblement* (Seghouani 2009: 42–52; Grossmann and Tutin 2010: 281; Haßler 2014: 164–165; Vanderheyden and Dendale 2018; Dendale et al. 2020).[7] When used as a sentence adverb (in syntactically and prosodically detached – front, medial or final – position, cf. Schuring 2020), *visiblement* indicates that the information in the proposition was obtained by the speaker via inference from elements of the situational context (sometimes described in the sentence itself: the rising of the water (1) and the end of the meal (2):

(1)   *Les   eaux,   **visiblement**,   montaient.*
       the   waters   visibly   rise.IMPF.3PL
       'The waters **obviously** (lit. 'visibly') rose.'   [constructed]

(2)   *Nous sommes plusieurs autour de la table, sur cette image photographique.*
       *C'est   la   fin   du   repas,   **visiblement**.*
       it.be.PRS.3SG   the   end   of the   meal   visibly
       Nous en sommes au café, au cigare des messieurs.
       'We are several around the table, on this picture. It's the end of the meal, **obviously** (lit. **'visibly'**). We're at the coffee course, cigar time for the men.'
                    [Semprun 1994, *Frantext*]

In these sentences, *visiblement* refers to elements of evidence that constitute the basis of the inference: There are visible, clear signs of something, as in (2).

Audiblement 'audibly' also has an emerging use as a sentence adverb, with propositional scope,[8] alongside its much more frequent use as a manner adverb,

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6 Several other adverbs ending in *-iblement/-ablement* (*sensiblement* 'sensibly', *tangiblement* 'tangibly', *palpablement* 'palpably', and *ostensiblement* 'ostensibly') have not developed any such uses as sentence adverbs.

7 Equivalents for *visiblement* have been studied for several European languages: Haßler (2005: 239–240); Cuartero Sánchez (2011: 57); Torner (2016: 264–267) and Dendale et al. (2020) for Spanish *visiblemente*; Bednarek (2006: 640); Clark (2010: 149); Ifantidou (2010: 146) ; Carretero (2014: 145); Grund (2016: 163, fn. 8); Mélac (2014: 185, 274, 279); Lampert (2013/2014), for English *visibly*; Lehmann (2008) for German *offensichtlich*; Hirschová (2013: 134) for Czech *viditelně*; Ruskan (2015) for Lithuanian *ryškiai*, etc.

8 Some of my examples, including the following one, interestingly, show that in the eyes of some speakers the adverb has not yet acquired the status of a sentence adverb, as compared to *visiblement* which has done so: **Visiblement** *(il faudrait inventer le terme:* "**audiblement**"*), cet*

with limited scope. Interestingly, it is sometimes combined with *visiblement* as a sentence adverb, often as a correction of the latter, as is shown by (4):

(3) *Là   on   est   **audiblement** pas en   France*
     there GEN_PRON be.PRS.3SG audibly   not in   France
     (puisqu'on y   parle   la   langue   de
     (since-GEN_PRON there speak.PRS.3SG the   language of
     Cervantes).
     Cervantes
     'There, we are **audibly** not in France (since the language of Cervantes is spoken there).'   [*frTenTen12*]

(4) *Après un   petit appel dans un   call-center **visiblement***
     after a   short call   to   a   call center visibly
     (ou plutôt, audiblement) situé   au   Maghreb,
     (or rather, audibly)   situate.PTCP in the   Maghreb
     on crée un dossier à mon nom, et la procédure s'enclenche.
     'After a short call to a call centre, **visibly** (or rather, **audibly**) located in the Maghreb, a file is created under my name, and the procedure starts.'
                                                                           [*frTenTen12*]

In both examples, *audiblement* has propositional scope and indicates that the speaker has obtained the information described in the sentence ('we are not in France', 'the call centre is situated in the Maghreb') through inference, on the basis of audible evidence (the language spoken and most plausibly the accent).

On an epistemic scale, sentences with *visiblement* (and even *audiblement*) express high certainty or high commitment to the truth of the proposition.

5.2.1.2 *apparemment* and *selon toute apparence*
A second class of adverbs with an inferential function comprises the sentence adverb *apparemment* 'apparently', morphologically derived from the adjective *apparent* 'apparent,' and the fixed prepositional phrase or adverbial idiom *selon toute apparence* 'to all appearances'. The latter is constructed with the preposition *selon* (further discussed in Section 5.4) and the noun *apparence* 'appear-

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artiste est un excellent architecte sonore! (*frTenten12*). '**Visibly** (they should invent the term **"audibly"**), this artist is an excellent sound-architect!' As the word *audiblement* does exist and is very common in French as a manner adverb, the author of (i) probably means that *audiblement* does not exist, in his/her view, with a status of sentence adverb similar to that of *visiblement*.

ance', which belongs to the same morphological family as the adjective *apparent* and the adverb *apparemment*. Both units are predominantly used as sentence adverbials (Anscombre et al. 2009; Rodríguez Somolinos 2010; Anscombre 2013). They signal inference on the basis of circumstantial evidence (here, the fact that the speaker still had not yet seen John):

(5)   *Je n'avais toujours pas vu ce Jean* [...].
        Apparemment, *il*   *n'était pas*   *souvent*   *là*.
        apparently   he   NEG.be.IMPF.3SG.NEG   often   there
        'I still had not seen this John [...]. **Apparently,** he was not often there.'
                                                    [Jardin 1989, *Frantext*]

Apparement and *selon toute apparence* express a lower degree of confidence than *visiblement*, due to the reference to the notion of 'appearance', which is in paradigmatic contrast with its antonym 'reality'. Due to the presence of *toute* in the idiom *selon toute apparence* (universality of appearances), the adverbial idiom seems to express a slightly stronger confidence in the truth of the proposition than the adverb:

(6)   *Le*   *président*   *du*   *Forum des anciens combattants* *du*
        the   president   of.the   Veterans Forum   of.the
        Mozambique,   *Hermínio dos Santos*   *a été appréhendé*
        Mozambique   Hermínio dos Santos   arrest.PRF.PASS.3SG.M
        le   *10 août,*   ***selon toute apparence***   *parce qu'il*
        the   10th of August   according to every appearance   because.he
        prévoyait   *d'organiser*   *une*   *manifestation*.
        plan.IMPF.3SG   to.organize.INF   a   demonstration
        'The President of the Mozambican Veterans Forum, Hermínio dos Santos, was arrested on August 10th, **to all appearances** because he planned to organize a demonstration.'   [*frTenTen12*]

Selon toute apparence points to evidence that allows one to infer the reason why Hermínio dos Santos was arrested.

    The different types of inference to which the two words can refer have still not been studied in the literature, but in (6) the inference seems to be abductive (Desclés and Guentchéva 2001, 2018; Dendale and De Mulder 1996): reconstruction of the planning of a demonstration by observing the president's behavior.

5.2.1.3 *selon toute évidence*, *de toute evidence* and *à l'évidence*

Another subgroup of adverbial idioms with propositional scope that can have an inferential function contains units based on the noun *évidence* 'obvious-ness', headed by different prepositions. Their semantics is intricate, and a de-tailed description of these units is still required.

Let us take *de toute évidence* (lit. 'of every evidence') as a starting point. Corpus data show that depending on the co(n)text,[9] this expression sometimes has a primary evidential function, and sometimes a primary modal one. In cases where circumstantial evidence is given, or where the propositional content refers to an internal state of affairs (emotion, etc.) or a state of affairs not wit-nessed by the speaker, the inferential interpretation is the most likely one, meaning 'the evidence available makes me think that'. There is, then, also a modal overtone of high confidence on the part of the speaker. In (7), the state of affairs is an internal one ('Mrs. C. does not want …'), which can only be accessed indirectly, by inference (here on the basis of observable facts, viz. her behav-iour: carefully palpating the pumpkins). In (8), the fact that an accident hap-pened, a past event, is inferred with great confidence from the perceived results:

(7) **De toute évidence**, *Madame C.   ne   tient   pas à   me*
     of   every evidence Mrs. C.   NEG want.PRS.3SG NEG to   I.OBL
     faire   manger   n'importe quel potiron ;   inlassablement elle   les
     let.INF eat.INF   any   pumpkin tirelessly   she   them
     tâte   et   les   soupèse.
     palpate.PRS.3SG and   them estimate_weight.PRS.3SG
     '**Obviously**, Mrs. C. does not want me to eat any pumpkin; tirelessly she
     palpates them and estimates their weight.'   [Pilhes 1965, *Frantext*]

(8) *Soudain, Riccardo freina. Dans un grand virage large et ombragé, il y avait*
     du monde, des voitures arrêtées, des gens descendus de voiture :
     de   toute   évidence   un   accident,   et   tout   récent.
     of   every   evidence   an   accident   and   very   recent
     'Suddenly, Riccardo braked. In a wide, shady turn, there were people,
     stopped cars, people got out of the cars: **obviously** an accident, and a
     very recent one.'   [Romilly 1993, *Frantext*]

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9 *Co(n)text* means "cotext or context". By *cotext* we mean the linguistic context, the elements occurring in the left and the right distribution of a unit. *Context* refers to the situational, extra-linguistic context. When *Co(n)text* is used, the relevant elements can come from either one.

Examples like (9), however, are less clearly evidential. *De toute evidence* means 'that was clear and evident'. The expression indicates strong epistemic support for the claim of the house being abandoned:

(9) *Perquisition chez le propriétaire. Puis, en sa compagnie, dans le logement de la rue des Cinq-Diamants.*

    *Les   lieux   sont   **de toute évidence**   abandonnés.*
    the   places be.PRS.3PL of   every evidence   abandoned
    'Search of the owner's house. Then, in his company, of the housing in the Rue des Cinq-Diamants. The places are **obviously/clearly** abandoned.'

                                                               [Perrut 2009, *Frantext*]

These two possible interpretations (primarily evidential and clearly epistemic) seem also to exist for *selon toute evidence* 'according to all evidence' and *à l'évidence (*lit. 'to the evidence'*). Selon toute evidence* in (10) expresses inference on the basis of perceived evidence[10] (*puisqu'il parle* ... 'because he speaks ...') with the propositional content referring to unobserved past states of affairs. *À l'évidence* gets a modal interpretation in (11) ('that is evident'), where it reinforces the affirmative particle *oui* 'yes' ('definitely yes'):

(10) ***Selon   toute évidence,** ils   se sont connus   pendant un*
      according to every evidence they   REFL.know.PRF.3PL during   a
      bon moment puisqu'il parle   d'un   restaurant   sur
      long time   since.he talk.PRS.3SG about.a   restaurant   on
      la   Schillingstrasse   (rue   du   centre de Berlin) où   ils
      the   Schillingstrasse   street of.the center   of Berlin where   they
      avaient   leurs   habitudes.
      have.IMPF.3PL their   habits
      '**Obviously**, they have known each other for a long time since he talks about a restaurant on the Schillingstrasse (a street in the centre of Berlin) where they used to come.'   [*frTenTen12*]

(11) *Si un autre jour, je me définis comme un noir (car mon père est noir) est ce que ce jour là je serais victime de discriminations?*

      À l'évidence   oui,   mille fois   oui.
      to   the.evidence yes   a thousand times yes

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10 For a treatment of *selon*, which can both head prepositional phrases with a reportive function and with an inferential function, see Section 5.4.

'If, another day, I define myself as black (because my father is black), would I be the victim of discrimination that day? **Definitely** yes, a thousand times yes.' [*frTenTen12*]

5.2.2 Inferential extensions of MUST-verbs

Here I will consider the evidential function or extension of the MUST-verb *devoir* 'must' and CTP MUST-verb *falloir* 'have to, need to' (in the third person impersonal: *il faut que*), both in their 'epistemic' use, as well as the composite verbal idiom *faut croire* 'one has to believe'.

5.2.2.1 Epistemic *devoir*

Of all units with an evidential function in French, the polysemic semi-auxiliary *devoir* (Kronning 1996: 19) is the most studied. Of its two[11] main uses (Huot 1974; Sueur 1975) – deontic, as in (12), and epistemic, as in (13) – only the epistemic use can be considered as a basis for an evidential extension:

(12) *Pierre **doit** interroger Marie.*
Pierre must.PRS.3SG question.INF Marie
'Peter **has to** question Mary.' [cited from Sueur 1979: 105]

(13) *Personne ne suit ma visite. Même les forces de l'ordre*
nobody NEG follow.PRS.3SG my visit even the police forces
*s'en désintéressent. On **doit** penser*
REFL.of that lose.PRS.3PL.interest GEN_PRON must.PRS.3SG think.INF
que je suis un doux dingue.
COMP I be-PRS.1SG a sweet madman
'No one is following my visit. Even the police are losing interest. People **must** think I'm a sweet madman.' [Artières 2013, *Frantext*]

As for epistemic *devoir*, its evidential function has been acknowledged and described by many scholars[12] (e.g. Kronning 1996: 27 fn. 75, 2001; Desclés and

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11 In several studies, Kronning presents convincing arguments in favour of the existence of a third group of uses, labeled 'alethic', giving the term an extended meaning in comparison to the way it is used in logic (Kronning 1996: 28). Its linguistic behavior has an intermediate position, between the epistemic and the deontic uses.

12 Other scholars, however, explicitly disagree with the evidential nature of *devoir* (e.g. Barbet 2012: 49), instead arguing that it is an epistemic modal marker.

Guentchéva 2001; Squartini 2004; Desclés 2009; Gosselin 2010: 440; Vetters 2012: 45).[13]

We subscribe to Cornillie's phrasing here, believing that "[t]he argument [for excluding *must* and *moeten* from the group of epistemic modals] is that the speaker has recourse to this modal <u>because of its evidential value</u> rather than because of the specific degree of epistemic commitment it conveys" (Cornillie 2009: 54, emphasis added). The main argument I see for *devoir* being evidential is that without *devoir*, the propositional content of sentences like (14b) contains no indication of how the speaker obtained the information: s/he may have inferred it or heard it from Jef himself. The content would then be simply presented by the speaker as having the status of knowledge simply retrieved from memory:

(14) a. *Jef*   **doit**   *être*   *à*   *Paris.*
         Jef   must.PRS.3SG   be.INF in   Paris
         'Jef **must be** in Paris.'

    b. *Jef*   **est**   *à*   *Paris.*
         Jef   be.PRS.3SG   in   Paris
         'Jef **is** in Paris.'   [constructed]

With the presence of epistemic *devoir* in this sentence, the possible ways in which the information in the sentence was acquired are narrowed down to inference, excluding direct perception, report (epistemic *devoir* never has this interpretation in French) and simple retrieval from memory.

Another argument, often given for the evidential function of *devoir* (for *must* see e.g. von Fintel and Gillies 2010), is contextual adequacy, suggesting that the epistemic use of *devoir* is impossible when the speaker is immediately able to verify what he or she is saying:[14]

(15)   *[When the speaker sees the pouring rain]*
        # Il   **doit**   *être*   *en train de*   *pleuvoir.*
        # it   must.PRS.3SG   be.INF   in the process of   rain.INF
        'It **must** be raining.'   [constructed]

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13 This holds true for its equivalent in other languages as well, e.g. in English: "it is the notion of deduction or inference from known facts that is the essential feature of *must*, not just the strength of commitment by the speaker" (Palmer 1986: 59); "epistemic *must* is an evidential marker signaling an indirect inference" (von Fintel and Gillies 2010: 380).

14 Here and in the following, # means 'inadequate in this situational context'.

Marking inferential evidentiality, *devoir* is associated with different types of inferences (Dendale 1991: 65; 1994: 28–32, Squartini 2008: 925, 930), unlike most other (e.g. adverbial) inferential markers, which are more restricted in this respect. The inferential operation can be abductive (16), deductive (17), inductive (18), estimative (19)–(20),[15] as shown in the examples below. The inferential operation can, furthermore, be perception-based (i.e. based on circumstantial evidence), report-based (i.e. based on what the speaker heard others say) or knowledge-based, (i.e. based on pieces of general and/or specific knowledge, or in other words, on conceptual evidence):

(16) <u>*Elles*</u> *n'ont*   *pas* *l'air*   *très* *jeunes*, <u>*ni*</u> <u>*très*</u>
     they NEG.have-PRS.3PL NEG the.appearence very young nor very
     <u>*sportives*</u>, ce *ne* **doit**   *pas* *être*   *les* *professeurs*
     sportive it NEG must.PRS.3SG NEG be-INF the teachers
     de   *gymnastique.*
     of   Gymnastics
     <u>'They do not look very young nor very sporty</u>, these **can**not[16] be the gym teachers.'   [Dupuy 2013, *Frantext*]

(17) **J'ai dû**   *partir,*   *à* *cinq* *heures,* *il*   *n'y a*   *pas d'*
     I.must.PRF.3SG leave.INF at five o'clock there NEG.be.PRS.SG NEG
     exception à   *la*   *règle.*   *Une* *question* *de*   *routine,*
     exception to the rule a matter of routine
     je *le* *fais*   *depuis que* *j'* *ai quitté*   *l'école*
     I it.OBL do-PRS.1SG since I finish.PRF.1SG the.school
     'At five I **must have** left, there's no exception to the rule. A matter of routine, I've done it ever since I finished school.'
                                    [Abba, *The day before you came* (song)]

(18) *Les Allemands de* *l'Est*   **doivent**   *avoir*   *beaucoup*
     the Germans of the.East must.PRS.3PL have.INF much
     souffert, <u>*à en juger par*</u> <u>*ce que*</u>   <u>*ces*</u>   <u>*quelques*</u> <u>*familles*</u>
     suffer.PRF judging by   that.what those few   families

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15 In combination with quantitative data, epistemic *devoir* can express estimation, obtained by a form of calculation. If calculation cannot be reduced to a form of deduction (or abduction), it should be added as form of inference besides the already generally acknowledged ones.

16 French epistemic *devoir* can be accompanied by negation, which then weakly negates the state of affairs described in the infinitive that follows, meaning 'these do not seem to be the gym teachers'.

ont	*déjà*	*souffert.*
have.PRES.3PL	already	suffer.PTCP

'East Germans **must** have suffered a lot, judging from what these few
German families have already suffered.' [constructed]

(19) *Ils* **doivent** *être* *des* *centaines [talking about a crowd].*
they must.PRS.3PL be.INF ART.INDF.SG hundreds
'They **must** be hundreds.' [constructed]

(20) *Elle* *est née* *en* *1997. Elle* **doit** *avoir*
she is.born in 1997 she must.PRS.3SG have.INF
vingt *ans* *maintenant.*
twenty years now
'She was born in 1997. She **must** be twenty years old now.' [constructed]

Unlike English *must*, French epistemic *devoir* can be used in several tenses: not
only in the present (*doit*) but also in the 'passé composé' (*a dû*) (see example
(17)), the 'imparfait' (*devait*)[17] and the 'plus-que-parfait' (*avait dû*) (Huot 1974;
Dendale 1991; Valiquette and Lesage 1995; Kronning 1996; Laca 2012).[18] This
creates pairs of semantically very near but nevertheless not completely equiva-
lent constructions, which English and Dutch, for instance, do not have:
(a) *doit* + compound infinitive vs. *a dû* + simple infinitive and (b) *devait* + com-
pound infinitive vs. *avait dû* + simple infinitive, illustrated by (21)–(23); the
subtle differences here have been described only recently and only partially
(Laca 2010, 2012, 2014):[19]

(21) a. *Il* **doit** *l'avoir* *oublié.*
he must.PRS.3SG it.OBL.be.INF forget.PTCP
b. *Il* **a dû** *l'oublier.*
he must.PRF.3SG it.OBL.forget.INF
a.=b. 'He **must have** forgotten it.' [constructed]

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17 E.g. *Il était 17h à Bangkok ... le soleil* **devait** *commencer à décliner comme il fait toujours à
cette heure-ci ...* 'It was 5 pm in Bangkok ... the sun **was about to** (lit. must.IMPF.3SG) set as it
always does at this hour'.

18 *Devoir* does not have an epistemic meaning, however, in the future tenses (*devra* and *aura
dû*), and in the compound conditional (*aurait dû*) (Huot 1974). For an alternative analysis, see
de Saussure (2018), who tries to show – with arguments and data I do not completely agree
with – that *Pierre* **aurait dû** *être surpris* 'Peter **should have** been surprized', although counter-
factual, has an epistemic and evidential reading, and he tries to explain why this is the case.

19 Even double compound forms are regularly attested, for example: **avait dû** *avoir trouvé*
'**must** have found' (lit. '**had** + **must** + **have found**').

(22)   *[...] je songeai   qu'elle   aussi   **devait***
       [...] I   think.PST.PFV.1SG   COMP.she   too   must.IMPF.3SG
       avoir   remarqué *certaines choses à mon sujet   et*
       have.INF   notice.PTCP   certain   things about myself and
       les   gardait   pour   soi.
       them   keep. IMPF.3SG   for   herself
       'I thought that she too **must have noticed** some things about me and
       kept them to herself.'   [Bouillier 2004, *Frantext*]

(23)   *Entre   ma   paillasse et   la   planche   du   lit,*
       between   my   mattress   and   the   board   of.the   bed
       j'avais trouvé,   en effet,   un   vieux morceau de   journal
       I.find.PST.PRF.1SG indeed   a   old   piece   of   newspaper
       presque collé   à l'étoffe [...]. Il relatait   un fait divers
       almost glue.PTCP   to the.cloth [...] it relate.IMPF.3SG a news item
       *dont   le   début   manquait,   mais qui **avait dû***
       of which the   beginning miss.IMPF.3SG but   that must.PST.PRF.3SG
       se passer   *en   Tchécoslovaquie.*
       REFL.happen.INF   in   Czechoslovakia
       'Between my mattress and the head-board, I had found an old piece of
       newspaper almost glued to the cloth [...]. It reported a news item with the
       first part missing, but that **must have happened** in Czechoslovakia.'
                                                     [Camus 1942, *Frantext*]

As for the simple conditional (*devrait*), the possibility of an epistemic meaning
remains a little controversial.[20] Non-deontic *devrait* can, most often, be consid-
ered a prediction marker (Dendale 2000), which qualifies events situated in the
future:

(24)   *Si tout   se passe   bien   et   si   les   vents*
       if everything   REFL.go.PRS.3SG well   and if   the   wind.PL
       ne   sont   pas   contraires, la   flotte   anglaise,   [...],
       NEG   be.PRS.3PL NEG   contrary   the   fleet   English.ADJ.F
       devrait   *s'approcher   des   îles Falkland*
       must.COND.3SG REFL.approach.INF of.the   Falkland Islands

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20 Compare e.g. Dendale (2000), who considers *devrait* to have an epistemic meaning, with
Kronning (2001), who considers *devrait* an "epistemic marker" but with a *dev-* stem that ex-
presses alethic modality. In his analysis, this means, among other things, that the verb is part
of the propositional content, rather than being external to it, that it can appear in presupposi-
tions (which epistemic *devoir* cannot), etc. For Italian *dovrebbe*, see Rocci (2012).

aux alentours des	*20 et 21 avril.*
around.ART.DEF.PL	20 and 21 April

'If everything goes well and if the winds aren't against us, the English fleet **should reach** the Falklands around the period of 20–21 April.'

[*Nouvel Observateur*, cited from Dendale 2000: 159]

But this is not always the case, as shown by example (25), which indicates an actual state of affairs, on the basis of what Dendale (1999: 21) calls "in absentia premises", viz. premises that are not perceivable at the moment of speaking:

(25)   *En   principe, d'après   leur   dernière position   connue,*
         in   principle according to   their   last.ADJ.F position   known.ADJ.F
         *ils   **devraient**   être   plus près   que le Grey Shadow.*
         they   must.COND.3PL   be.INF   closer   than the Grey shadow [= a ship]
         'In principle, according to their last known position, they **should** be closer than the Grey Shadow.'   [Sulitzer 1990, cited from Dendale 2000: 159]

On top of its evidential function, the semi-auxiliary verb *devoir* in its different verb forms has epistemic overtones, signalling high certainty (Vetters 2012; Song 2015: 14). This is in contrast to *pouvoir* in its epistemic use, which expresses low certainty. Kronning (1996: 27, fn. 75) considers epistemic *devoir* to be what he calls a "mixed" evidential-modal marker.[21]

5.2.2.2 Epistemic *il faut que/il fallait que*

The impersonal, defective verb *falloir* 'ought to, have to' is generally considered to express *deontic* necessity:

(26)   *Il   **faut**   **que**   tu   partes   maintenant.*
         it   must.PRS.3SG.be   COMP   you   leave.SBJV.PRS.2SG   now
         'You **have to** leave now.'   [constructed]

In examples like (27)–(28) however, it has an evidential function, comparable with that of epistemic *devoir*. In both examples, *il faut/il fallait que* can be replaced by epistemic *devoir*: *tu **dois** avoir perdu la raison* 'you must have lost your reason' in (27), *il **devait** en avoir vraiment trop* 'he must really have had too many of them' in (28).

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21 For Kronning, epistemic *devoir* is historically and semiotically a *modal* marker, but an evidentialized one ("*médiativisé*") (Kronning 2004: 59). The same holds true for him for *pouvoir* (Kronning 2004: 59), not included in this overview (see, however, Tasmowski and Dendale 1994).

(27)   [In a discussion about the resemblance between a boy and his mother. The mother says to the boy:]

    Ma parole, **il faut** **que** *tu aies perdu la raison*
    my word it must.PRS.3SG.be COMP you loose.SBJV.PRF.2SG the reason
    pour t'extasier de la sorte sur la ressemblance de ce
    for REFL.rhapsodise that much about the resemblance of that
    petit avec moi.
    small boy with me
    'My word! You **must** have lost your reason <u>to be so ecstatic about the re-</u>
    <u>semblance of this little boy to me</u>'.

<div align="right">[Picard 1911, cited from Hooke 1935: 279]</div>

(28)   *Il nous a donné des pommes,* **il fallait**
    he us.OBL give.PRF.3SG ART.INDF.PL apple.PL it must.IMPF.3SG
    qu'il *en ait vraiment trop.*
    COMP.he PART avoir.SBJV.3SG really too many
    'He gave us apples; he really **must** have had too many of them.'

<div align="right">[cited from Rivière 1984: 15]</div>

One could thus also speak of an epistemic use[22] of *il faut/fallait que*, a use that signals that a speaker acquired the information in his/her utterance through inference based on elements of the external world that s/he perceived. Without the presence of *il faut que*, sentence (28) – and a bit less easily also (27) – would be interpreted as expressing knowledge memorized by the speaker, respectively about an internal (27)[23] and an external state of affairs (28).

    The earliest comments on this use of *il faut que* are to be found in Hooke (1935), who spoke at that time of 'neglected' uses of *falloir*, which have "the meaning of the English *must* of probability" – thus explicitly linking it to epistemic *devoir* (Hooke 1935: 278–280) – and in Brunot (1922), whose description of the meaning of *falloir* contains elements of an evidential-like analysis: *il faut que* "expresses a <u>logical concatenation</u>, a probability <u>resulting from reasoning</u>" (Brunot 1922: 531, emphasis added). Example (28) shows that *falloir* – just like *devoir* – has this evidential function also in the past tense ('imparfait'). The frequency of the epistemic use of *falloir* however remains rather infrequent in

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22 No mention is made of this use in the largest French dictionary, the *Trésor de la langue française informatisé* (TLFi). The verb has also escaped close examination by researchers of evidentiality (see, however, Gosselin 2010: 295).

23 Example (27) would even appear strange without *il faut que*, because of the presence of elements in the cotext (*pour t'extasier de la sorte*) typically presented as support for an inference.

comparison with its deontic use and seems restricted to specific constructions, still to be described in detail (cf. Rivière 1984: 11).[24]

As can be seen from Brunot's description, there is both an evidential (logical concatenation, resulting from reasoning) and a modal element of meaning (probability assessment) in the lexical meaning of epistemic *falloir*, similar to aspects of the meaning of epistemic *devoir*. The modal component in the meaning of *falloir* is also 'high degree of certainty'. Note that the epistemic qualification in the descriptions ensues from the evidential one.

5.2.2.3 Idiomatic expression *faut croire*

The verbal idiom *faut croire* 'one has to believe' was recently described by Rossari (2012a, b) as having an evidential function.[25] It is morphologically composed of the impersonal form of the MUST-verb *falloir* (*il faut*)[26] 'ought to, have to' in its deontic meaning, without its usual impersonal pronoun and followed by the THINK-verb *croire* 'believe'. In spite of the presence of this verb, the unit does not signal that the propositional content is simply the object of belief (Rossari 2012a: 65). This is because the idioms do not refer to actual belief, but to the speaker's future belief, which they hold as a consequence of some inference. The idioms therefore globally indicate that the speaker has inferred the propositional content.

Apart from small passages in Rossari's articles, the unit has not yet been subjected to a thorough corpus analysis. It appears in right-detached position (29), or

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24 In certain distributions of the verb, the epistemic use seems much more frequent than its deontic use. The sequence *il faut que je me sois* + past participle, for instance, appears 12 times in the 10-billion-word corpus *frTenTen12*, and in 10 of those examples we can identify the epistemic use, with an evidential function: *Il **faut que je me sois** bien mal exprimé pour que le ministre se soit ainsi mépris sur mes intentions* (*frTenTen12*). 'I **must** have misspoken seeing that the minister misunderstood my intentions in that way'. On the other hand, we did not find one single epistemic or evidential example of *Il a fallu que je me…* out of 1400+ checked sentences in the same text base. A lot seems thus to depend upon the nature of the verb that follows the phrase. This is still to be investigated in more detail.

25 The author also considers *faut imaginer* as an evidential, but only one suitable example of it is given. We did not find one authentic example of the phrase with evidential meaning in the huge database *frTenten12*. Its use is too marginal to further be mentioned here.

26 The idioms occur most often without the impersonal subject *il* it normally takes. This shows their advanced degree of grammaticalization.

as an autonomous reply to previous turns in dialogue (30) (Rossari 2012a: 68). It is rather common in colloquial language, and found less in written French:[27]

(29) *Caroline a les yeux rouges. Elle a pleuré, **faut croire.***
Caroline has red eyes   she cry.PRF.3SG must.PRS.3SG believe.INF
'Caroline has red eyes. She **must** have cried (lit. She has cried, (one)
must believe).'   [cited from Rossari 2012a: 73]

(30) *Mince alors, fit-il,   l'autre   salaud   lui*
shit   then   make.PST.PFV.3SG-he the.other basterd to him.OBL
*a raconté ? – **Faut   croire.***
tell.PRF.3SG   must.PRS.3SG   believe.INF
'– Oh shit! he said, "Did the other bastard tell him?" – **Must to be the
case**' (lit. '(one) **has to believe** that').
                                [Clavel 1962, cited from Rossari 2012a: 68]

The 'inferential range' of *faut croire* – i.e. the types of inferences it can signal – is much more limited than that of epistemic *devoir*. It often signals an *a posteriori* reconstructed cause of an observed (resulting) state of affairs – e.g. in the case of feelings and other internal states of affairs. It thus expresses abductive inference on the basis of perceived evidence. It may be possible to describe this evidence in the sentence itself (29), or not (the other cases); but *faut croire* does not seem able to express the supposed consequence of an observed state of affairs (predictive inference), as shown by the inappropriateness (#) of sentence (32), observed by Rossari (2012a: 66):

(31) *Même les pires fraudeurs et criminels de notre société n'utilisent pas ce
stratagème.*
Héma-Québec   n'a   pas les   mêmes   scrupules
Héma-Québec   NEG.have.PRS.3SG NEG the   same.PL scrupule.PL
il faut   croire.
it must.PRS.3SG   believe.INF
'Even the worst fraudsters and criminals in our society do not use this ploy. Héma-Québec does not have the same scruples, **you must believe**.'
                                                        [frTenTen12]

(32) *#Caroline   a pleuré,   elle a   les   yeux   rouges,*
Caroline   cry.PRF.3SG   she have.PRS.3SG ART.DEF.PL eyes   red.PL

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27 We did not find one single example of the construction in *Frantext*, the more literarily-oriented text base.

>   *faut   croire.*
>   must.PRS.3SG believe.INF
>   'Caroline has cried. #She has red eyes, (one) **must believe**.'
>
>   [cited from Rossari 2012a: 66]

5.2.3 Markers derived from SEEM-verbs

French has several units within the SEEM-category that mark inferences based on perceptual evidence. The two most frequent ones are the copular verbs *paraître* 'appear' and *sembler* 'seem' (e.g. Bourdin 1986; Nølke 1994; Thuillier 2004a, b), although there is also the verbal idiom *avoir l'air* 'seem' (lit. 'having the looks'):

(33) a. *Marie (me)   **paraît**   plus jeune   que   sa   voisine.*
          Mary (me.OBL) look.PRS.3SG younger   than   her   neighbor.F
          'Mary **looks** younger (to me) than her neighbor.'

      b. *Marie (me)   **semble**   plus jeune   que   sa   voisine.*
          Mary (me.OBL) seem.PRS.3SG younger   than   her   neighbor.F
          'Mary **seems** younger (to me) than her neighbor.'

      [cited from Thuillier 2004a: 28]

      c. *Marie (m')   **a l'air**   plus jeune   que   sa   voisine.*
          Mary   (me.OBL) look.PRS.3SG younger   than   her   neighbor.F
          'Mary **looks** younger (to me) than her neighbor.'

A different type of marker expressing a similar meaning is the verbal idiom *on dirait/dirait-on* 'seem' (lit. 'one would say') (see Section 5.2.4.3), which can be used to paraphrase the three others:

(34) a. ***On   dirait***   *Marie   plus jeune   que   sa   voisine.*
          GEN_PRON   say.COND.3SG Mary   younger   than her neighbor
          'Mary seems (lit. '**One would say**... to be') younger than her neighbor.'

      [constructed]

      b. *Marie, **on**   **dirait**,   est   plus jeune   que*
          Mary   GEN_PRON   say.COND.3SG   be.PRS.3SG younger   than
          sa voisine
          her neighbor
          'Mary seems (lit. '**One would say**... to be') younger than her neighbor.'

5.2.3.1 *Paraître*

If, from the outset, the plain lexical meaning of *paraître* in its intransitive use is left aside, as in sentences like *Le soleil paraît* 'The sun appears' and *Mon article*

a paru 'My article has appeared, was published', the verb occurs in four types of constructions (cf. Thuillier 2004a; Dendale and Van Bogaert 2007):

(i)   as a **copular verb** with a personal subject, followed by an adjective (e.g. *jeune* 'young'), a bare noun (*médecin* 'doctor') or a prepositional phrase (*en colère* 'in anger'): *elle (me) paraît X* 'she seems (to me) X';

(ii)   as a **semi-auxiliary verb** with a personal subject, followed by an infinitive that is either the copular verb *être*, or any other verb: *elle paraît* + INF 'she seems to INF'. This construction has been described in terms of raising;

(iii)   as a **complement-taking predicate** with impersonal subject, with or without oblique experiencer: *il paraît que/il (me) paraît que* 'it seems/ appears (to me) that';

(iv)   as a **parenthetical verb** or a **prepositional construction:** *il paraît, paraît-il, paraît, à ce qu'il paraît* '(as) it seems'; this construction is functionally most related to (iii).

Paraître is interpreted as "an account of a subject's sensations, perceptions, impressions, concerning a state of affairs" (Thuillier 2004b: 174). Its focus is on the impression a situation makes on a subject (the speaker). It is not a direct-perception marker, but an inference marker: it predicates upon a situation 'through' the perceptual (or other) evidence of something other than the described state of affairs itself, evidence on which an inferential operation will be based. The distance between what a certain state of affairs really is and the impression it makes on a subject explains the modal overtone of low certainty of *paraître*. It also explains the effects of irreality or counterfactuality that the verb creates with certain contents, as e.g. in (35)–(36); in those cases, *paraître* is not an evidential marker:

(35)   *Elle **paraît**   plus jeune   qu'elle   ne   l'est.*
       she   LOOK.PRS.3SG younger   than.she   NEG Ø.be.PRS.3SG
       'She **looks** younger than she is.'   [constructed]

(36)   *Sur   cette   photo,   Tom   **paraît**   âgé.*
       on   this   picture   Tom   look.PRS.3SG   old.SG.M
       'On this picture, Tom **looks** old.'   [constructed]

The evidential value of *paraître* depends on the type of construction which the verb is part of.

1)   In the impersonal CTP construction without experiencer (*Il paraît que*) and in the parenthetical (*paraît-il, il paraît* and *paraît*) and prepositional constructions (*à ce qu'il paraît*), *paraître* expresses reportive evidentiality (for a description see Section 5.3.2). In all the other constructions, the verb ex-

presses inferential evidentiality, with evidence that is often perception-based, but that can also be of a more abstract type. Let us briefly look at the constructions capable of expressing inferential evidentiality.

2) In copular constructions (with or without a first person experiencer), as in (33) above and (37) below, *paraître* signals that the speaker infers from certain elements in the situational context that s/he observes that Joan is tired (internal state of affairs):

(37) *Jeanne* **(me)** **paraît** *fatiguée.*
Joan (to me.OBL) look.PRS.3SG tired.SG.F
'Joan **looks** (lit. **appears to me**) tired.' [constructed]

3) In the semi-auxiliary construction with a verb whose subject is not impersonal (the raising construction), *paraître* can also express inferential evidentiality, on behalf of the doctors, based on observed evidence:

(38) *Le petit garcon a aussitôt été conduit à l'hôpital pour y être examiné dans un service pédiatrique. Les résultats sont rassurants :*
le *petit* **paraît** *être* *en* *bonne* *santé.*
the boy appear.PRS.3SG be.INF in good health.
'The boy was immediately taken to the hospital for examination in a paediatric ward. The results are reassuring: he **appears** to be in good health'
[*frTenTen12*]

4) In the impersonal CTP construction with a dative experiencer, *paraître* cannot express reportive evidentiality. It expresses inferential evidentiality. This construction is said to be rare, and indeed, in that case *sembler* is clearly preferred (171.000 examples in *frTenTen12*), yet nevertheless, I found over 1,050 examples of the sequence *il me paraît que* in *frTenTen12*.

(39) *Or,* **il** **me** **paraît** **que** *pour* *tuer* *60 personnes*
yet it to me.OBL seem.PRS.3SG COMP in order to kill.INF 60 person.PL
sans *rien* *y* *gagner par ailleurs,* *il faut* *être*
without anything with.it gain.INF in top of that it must.PRS.3SG be.INF
déjà *bien* *malade.*
already very ill
'**It seems to me** that in order to kill 60 people, and what's more, without gaining anything, one has to be already very ill.' [*frTenten12*]

5.2.3.2 *sembler*
The SEEM-verb *sembler* can appear in four types of constructions:

(i) as a **copular verb** with a personal subject and followed by an adjective or a prepositional phrase: *elle (me) semble X*[28] 'she seems X (to me)'.

(ii) as a **semi-auxiliary verb** with a personal subject, followed by an infinitive that is either the copular verb *être* or another type of verb: *elle semble +* INF 'she seems to + INF' (raising construction);

(iii) as a **CTP with an impersonal subject**: *il (me) semble que* p 'it seems/appears (to me) that p';

(iv) as a **parenthetical verb** or **prepositional construction** (*semble-t-il, à ce qu'il (me) semble* '(as) it seems (to me)'.

Sembler is a verb that suggests a "more elaborately processed impression […] than *appear*" (Bäcklund 1983, cited from Bourdin 1986: 57); it "shares more properties with a verb of cognition than with a verb of perception" (Tasmowski 1989: 407); it is nearer to *croire* than it is to *paraître*, in the sense that it expresses intellectual support (Bourdin 1986: 57) or implies more cognitive processing efforts. An utterance with *sembler* "always involves some deduction procedure" (Tasmowski 1989: 407) it "expresses an inference which has its source in an immediate perception, usually visual" (Roulet 1979: 59, my translation). An utterance containing *sembler* "may refer to a hypothesis, a supposition, which is not the case with *paraître*" (Thuillier 2004b: 169). The fundamental meaning of an assertion of the type *a semble b*, according to Thuillier, is that it is also stating that *p* is the case, but does not rule out *p* not being the case (Thuillier 2004a: 28, 2004b: 175, 168). This explains the modal overtone of uncertainty attached to the verb (Thuillier 2004b: 170). *Sembler* is nearer to being a modal marker than *paraître* is.

Let us now have a closer look at the evidential value of *sembler* in its different constructions.

1) In the impersonal construction without oblique experiencer, according to certain authors (e.g. Bourdin 1986), *sembler* can express reportive evidentiality, just like *paraître* (Section 5.3.2):

(40) ***Il semble que/ Il paraît que*** *les combats*
it seem.PRS.3SG COMP/ it appear.PRS.3SG COMP the battle.PL
ont été violents.
be.PRF.3PL fierce.PL
'**Allegedly** the battles were fierce.'   [cited from Bourdin 1986: 60]

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28 The variable *X* can be an adjective, a bare noun or a prepositional phrase (see above).

Other scholars hold the opposite point of view. For Ducrot, "the essential semantic difference" between *il paraît* and *il semble* is that the latter cannot "make an allusion to the speech of the other" (Ducrot 1984: 154). Anyway, it is very hard to find authentic examples where *il semble que* expresses reportive evidentiality (see Section 5.3.2), whereas for *il paraît que* this is the default interpretation. Most of the time, *sembler*, in this type of construction, signals that the speaker inferred the information on the basis of what s/he saw (e.g. in (41), traces of grass on the mower):

(41) *Il*   **me**   **semble**   **que** *Jean* *a tondu*   *la*   *pelouse.*
      it   to me.OBL   seem.PRS.3SG COMP Jean   mow.PRF.3SG the   lawn
      'It **seems to me** that John has mowed the lawn.'

                                        [cited from Tasmowski 1989: 403]

2)   According to Bourdin (1986: 55), the meaning of *sembler* in the CTP construction with an impersonal verb, as in (40) and (41) is equivalent to the meaning of *sembler* as in the copular construction in (42) and the semi-auxiliary construction in (43)–(44), but it expresses far more reflection than would be the case with *paraître*:

(42) *Elle*   *vit*   *ici*   *depuis*   *40 ans*   *et*   **semble**
      she   live.PRS.3SG   here   since   40 years and   seem.PRS.3SG
      amoureuse de son   île.
      in love   with her   island
      'She has lived here for 40 years and **seems** in love with her island.'

                                                        [*frTenTen12*}

(43) *Elle* **semble**   <u>*être*</u> *amoureuse de   Sebastian, elle rougit*
      she   seem.PRS.3SG be.INF in love   with Sebastian she blush.PRS.3SG
      toujours   en   sa   présence et   en   devient   encore
      always   in   his presence and of that   become.PRS.3SG   even
      plus   maladroit.
      COMPAR   awkward.SG.F
      'She **seems** <u>to be</u> in love with Sebastian, <u>she always blushes in his presence and becomes even more awkward</u>.'   [*frTenTen12*]

(44) *Le*   *soleil* **semble**   <u>*avoir*</u>   *un*   *effet* *tout à fait* *néfaste*
      the   sun   seem.PRS.3SG   have.INF a   effect very   harmful
      sur   *cette*   *peinture.*
      on   this   painting
      'The sun **seems** <u>to have</u> a very harmful effect on this painting.'

                                        [cited from Tasmowski 1989: 404]

(45) *Shakespeare* **semble**   <u>avoir</u>   <u>quitté</u>   *Stratford on [sic] Avon*
      Shakespeare seem.PRS.3SG have.INF leave.PTCP Stratford on Avon
      vers   *l'âge*   *de*   *25 ans.*
      at   the.age of   25 years
      'Shakespeare **seems** <u>to have left</u> Stratford-upon-Avon at the age of 25
      years.'   [cited from Tasmowski 1989: 404]

(43) expresses an inference about an internal state on the basis of perceptual
evidence (blushes, clumsiness); in (44) the speaker infers the harmful effect of
the sun possibly from the damage or other effects he or she observes in the
painting; in (45) the evidence is not perceptual, but the inference must be based
on pieces of knowledge and is probably a form of calculation (see fn. 15). In all
cases, the marker invites the listener to look for evidence on the basis of which
an inference can have been performed by the speaker.

3) The copular construction with an infinitive also has an inferential meaning.
    Consider example (46):

(46) *Jean*   **me**   **semble**   *en train de*   *tondre*   *la Pelouse.*
      John   to me.OBL   seem.PRS.3SG in the process of mow.INF the lawn
      'John **seems to** be mowing the lawn.'   [constructed]

This construction invites the listener to look for elements on the basis of which
the speaker is inferring that John is mowing the lawn. This element of meaning
is completely absent with the unmarked sentence *Jean est en train de tondre la
pelouse* 'John is mowing the lawn'.

   Sembler and *paraître* are semantically very close to each other (compare 33a
and 33b), but the two verbs are not completely equivalent, especially in distri-
butional terms.[29] The following example illustrates the differences of use be-
tween the two verbs:

(47) *Il*   **paraissait/**   ***semblait***   *plus jeune*   *encore*   *que*
      he   appear.IMPF.3SG *seem.IMPF.3SG younger   even   than
      la   *première* *fois*   *que*   *l'avait rencontré*   *Julius.*
      the   first   time   REL   him.OBL.meet.PST.PRF.3SG Julius
      'He **appeared/*seemed** younger than the first time Julius met him.'
                                           [Gide, cited from Thuillier 2004a: 28]

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29 The semantic difference between the two SEEM-verbs is responsible for a series of re-
strictions of use on *sembler* described by Thuillier (2014a: 28–30); see also Dendale and Van
Bogaert 2007, and Bourdin 1986.

What (47) is supposed to show is that it would be contradictory and absurd to formulate the hypothesis or make the supposition that someone is younger at a certain moment than he was before. That is what *sembler* would express here. And since that supposition is physically impossible, *semblait* is excluded. It is, however, perfectly possible to claim that the person gives the speaker the impression of being younger than he was before when the speaker saw him. That is what *paraître* expresses here and it is thus perfectly acceptable in that context.

5.2.3.3 *avoir l'air*

Avoir l'air is a verbal expression of the SEEM-type that can have a plain lexical use, expressing resemblance ('resemble, look like') followed by a prepositional phrase (*Il **a l'air d'un clown** 'He **resembles** a clown'). It is then part of the propositional content and hence not an evidential expression. But it also has a copular use followed by an adjective (48)[30] or an adverb with adjectival function (49), and a semi-auxiliary use (followed by *de* + INF; see ex. (50)–(51), just like *paraître* and *sembler*:

(48) *Elle **a** l' **air** **nerveuse**, comme en manque,*
      she   avoir.PRS.3SG the appearance.M nervous.F as   in need
      un peu   négligée   contrairement   à lui.
      a little bit unkempt   unlike   him.OBL
      'She **seems** nervous, as if she were in need, a little unkempt, unlike him.'
      [*frTenTen12*]

(49) *[...] le   jeu   **a l'air**   bien   (je suis tombé sous le charme des*
      [...] the game look.PRS.3SG good I fall.PRF.1SG.in.love   of.the
      artworks,   du   concept   et   même de   certaines   images.
      artwork.PL of.the concept and even of   some   image.PL
      'the game [= a videogame] **looks good** (I fell in love with the artwork, the concept and even some of the images).'   [*frTenTen12*]

(50) *La   jeune   étudiante   se   leva   enfin [...].*
      the young.F   student.F   REFL rise.PST.PFV.3SG finally

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30 The fact that the adjective in example in (48) (*nerveuse*) is feminine shows that it is not an adjectival modifier of the masculine noun *air*, but a complement of the copular verbal idiom *avoir l'air*. French grammars note more generally that the adjective following *air* can agree in gender and number either with the masculine singular noun *air* or with the subject of the sentence, which can then be feminine and/or plural. Strictly speaking, it is only in the second case that *avoir l'air* is copular, but ordinary speakers are generally not aware of that subtlety.

> *Sa coloc* **avait** *l'* **air** **d'être** *absente.*
> her roommate have.IMPF.3SG the appearance.M of.be.INF absent.F
> *Il n'y* *avait* *pas un seul* *bruit dans* *le* *Loft*.
> there.NEG be.IMPF.3SG NEG a single noise in the Loft
> 'The young student finally got up. It was almost 11 o'clock in the morning. She stretched herself out and rubbed her eyes. Her roommate **seemed to be** absent. There was not a single noise in the Loft.'
>
> [*frTenTen12*]

(51) *La sœur de son ami* **a l'air de** *l'apprécier…*
the sister of her friend seem.PRS.3SG him.OBL.appreciate.INF
et réciproquement.
and mutually
'The sister of his friend **seems** to appreciate him … and vice versa'.

[*frTenTen12*]

In such uses, the verb belongs to markers of the SEEM-category. It is not part of the propositional content[31] but can be considered to qualify a proposition whith *être* as copula. The difference between *Il* **est** *très fatigué* 'He **is** very tired' and *Il* **a l'air** *très fatigué* 'He **looks** very tired' is that it is only in the second sentence that the speaker indicates the basis for his/her belief that the man is very tired, i.e. the evidence the speaker observes, which allows him or her to draw conclusions. Most often the perceptual evidence is not made explicit in the utterance itself, as in (50)–(51); it is only present in the extra-linguistic context, as in (51).

5.2.4 Markers derived from SAY-verbs

Several inferential markers developed out of lexical SAY-verbs (or verbs of communication) that refer, by their lexical meaning, to evidence on which an inference is based.

5.2.4.1 Semi-auxiliary verbs derived from *promettre, menacer*
Lexical verbs *promettre* 'promise' and *menacer* 'threaten' have developed inferential uses, as in several other languages. The evidential nature and properties

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31 The expression is sufficiently desemanticized so as not to be considered part of the propositional content, like e.g. *avoir une apparence* in *Elle* **a une apparence** *féminine*, 'She **has a** feminine **appearance'**, which is thus not an evidential.

of this use have not yet been studied for French, but they seem parallel to their English and German equivalents, studied by e.g. Traugott (1997), Vázquez-Laslop (2000), Heine and Miyashita (2004), Diewald and Smirnova (2011). Some French examples:[32]

(52) *Cette   partouze **promet**   d'être   bouillante, car*
     this   orgy   promise.PRS.3SG to.be.INF sizzling   given the fact that
     une   blondasse délurée   et   une jolie Africaine que rien
     a   blonde.F   insolent.F   and a   pretty African.F that nothing
     ne   freinent [sic]   se   chauffent   ensemble.
     NEG   slow.PRS.3PL.down   REFL turn.PRS.3PL.on each other
     'This orgy **promises** to be sizzling because an insolent blonde woman
     and a pretty African woman who won't be stopped by anything are turn-
     ing on each other.'   [frTenTen12]

(53) *La   municipalité intervient   uniquement dans la reconstruction*
     the   municipality intervene.PRS.3SG only   in the reconstruction
     *des   arcades qui   **menacent**   **de**   tomber.*
     of.the   arches   that   threaten.PRS.3PL to   fall.INF
     'The municipality only intervenes in the reconstruction of arches that
     threaten to fall'.   [frTenTen12]

Promettre and *menacer* are in paradigmatic opposition here with the future or periphrastic future tenses of the verbs in the infinitive they govern (*Cette partouze **sera** bouillante, car…* 'This orgy **will be** sizzling, because…'; *les arcades **vont tomber*** 'the arches **will fall**'). The latter do not invite the listener to look for the evidence on which the speaker based his/her conclusions and do not invite to read the utterance as the result of an inference.

    Both verbs, firstly, take as their grammatical subject not a human being, but an event about which something is predicted. Secondly, they both indicate that some state of affairs will probably occur in the future, a property linked to their lexical use and which they share with temporal markers of futurity. Thirdly, they have an 'evaluation feature' concerning the forthcoming state of affairs that opposes them internally: positive, sympathetic, interesting (for the speaker or for somebody else) for *promettre* (normally); negative, unfavourable, danger-

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32 In syntactic approaches, the two verbs often get a homonymic approach, where each verb's two uses represent a homonymic pair (Ruwet 1972; Rooryck 1989: 191). *Promettre* is a control verb (with an agentive subject), *menacer* is considered a raising verb (without such a subject). The latter is syntactically put on a par with verbs like *sembler, paraître* and qualified semanti-cally in terms of probability (Abeillé 1998: §42).

ous for *menacer*. A fourth property, the most important here, is that both verbs indicate that the assertion about the (possible) future state of affairs is based on evidence – present in the extra-linguistic context – perceived (most of the time) by the speaker. It is on the basis of this evidence that the propositional content has been inferred by the speaker – a property that future tenses lack and also the verb *risquer* 'risk'.[33] *Menacer* and *promettre* have thus both developed an inferential function.

5.2.4.2 A copular verb derived from *s'annoncer*

S'annoncer is a reflexive SAY-verb with passive value ('be announced'). It also has developed a use as a semi-copular verb with an attributive adjective.[34] Just like *promettre* and *menacer*, it is oriented towards the future and signals that there are signs in the external world (observed evidence) that lead the speaker to infer that the future state of affairs described in the proposition will probably come to pass. In (54), the speaker has seen six episodes of *Lost* and makes a predictive inference about the quality of the subsequent episodes; in (55), the difference in meaning between *s'annonce excellente* and the simple future of *être* (**sera excellente** '**will be** excellent') is evidential: with *s'annoncer*, the speaker hints at the evidence at his/her disposal for what s/he is predicting. This evidence can be perceptual or not, and may be mentioned (55) or not (54):

(54) *La   3ème saison [de Lost] s'annonce   excellente,*
      the   3d   season [of Lost] REFL.announce.PRS.3SG   great.F
      j'ai adoré   les   6   premiers épisodes   et
      I.love.PRF.1SG the   6   first.PL episode.PL and
      j'ai   hâte   de   voir   la suite.
      I.have.PRS.1SG hurry   to   see.INF   the rest
      'The 3d season [of Lost] **looks like** it'll be great (lit. '**announces to be**'), I loved the first 6 episodes and I cannot wait to see the rest.'   [*frTenTen12*]

(55) *le   Legend [téléphone portable de HTC] est   dépourvu de*
      the   legend [cell phone of HTC]   be.PRS.3SG   lacking
      clavier   physique.   La   saisie   s'annonce
      keyboard   physical   the   input   REFL-announce.PRS.3SG

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[33] This is the reason why *risquer* is not considered as a possible evidential.
[34] Full lexical uses of *s'annoncer* with the meaning of 'be going to happen', as in: *De nouvelles festivités s'annoncent* ('New festivities **are going to happen**'), are to be excluded here.

donc   laborieuse.
therefore   laborious
'the Legend [HTC cell phone] lacks a physical keyboard. The input **will**
therefore be laborious.'   [*frTenTen12*]

5.2.4.3 Markers derived from *dire* in the conditional: *dirait-on, on dirait*

Dirait-on and *on dirait* 'looks like, seems' are verbal idioms composed of the SAY-
verb *dire* 'say' in the third person of the conditional mood, with the unspecified
pronoun *on* 'one, people' as subject. The unit is used parenthetically, with or
without subject inversion, in final or medial position in the sentence. As a whole,
it literally means 'one would say'. It is described as an evidential marker by
Myong (2004: 48) and Rossari (2012a: 67), as a 'mediative marker' by Anscombre
(2010: 6), more specifically as a deictic[35] inferential,[36] which explains the impossi-
bility of (56). Its meaning is globally comparable to that of SEEM-expressions
sembler (Anscombre 2010: 11), or *avoir l'air de*. See some examples:[37]

(56) *Il   va pleuvoir,   **dirait-on**,   *mais   ce   n'est*
       it   rain.FUTP.3SG say.COND.3SG-GEN_PRON but   that NEG.be.PRS.3SG

       pas   mon   avis.
       NEG   my   opinion

        '**Looks like** it's going to rain, *but that is not what I think.'

                                              [cited from Anscombre 2010: 21]

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35 This means that *on dirait* and *dirait-on* cannot be in the scope of a reportive marker like
selon N, unlike *on dirait que*: <u>*Selon Max,* **on dirait qu**'il va pleuvoir</u> (Anscombre 2010: 14). '<u>Ac-
cording to Max</u>, **it looks like** it's gonna rain.'
36 Rossari (2012a: 67) describes this marker as having a "mixed evidential value, <u>between
inference and perception</u>" (emphasis added). This formulation is a bit problematic. It implies
that every inferential marker referring to perceptual evidence is a 'mixed marker'. That is ap-
parently what the author has in mind when she continues "ce qui remet en cause la pertinence
de la distinction entre ces deux catégories" (Rossari 2012a: 67) ('this calls into question the
relevance of the distinction between these two categories [inference and perception]').
37 Cases where *on dirait* is followed by a NP fall within the plain lexical use of this idiom and
are not evidential. They express resemblance, just like *avoir l'air de* followed by a NP, and are
part of the propositional content: *Ses yeux brûlent quand elle regarde Alexandre.* **On dirait** <u>deux
billes</u> *au fond d'un puits sec* (Bois 2009, *Frantext*). 'Her eyes burn when she looks at Alexander.
They **look like** <u>two marbles</u> at the bottom of a dry well.' Examples like the following, with
negation, get a counterfactual reading ('He is 70 years old, but he does not look that age') and
are thus not to be considered evidential: *On ne **dirait** pas qu'il a 70 ans* (Myong 2004: 48).   'He
doesn't **look like** he's 70.'

(57) *Ils   veulent   à tout prix   m'   abaisser,*
      they   want.PRS.3PL   at any cost   me.OBL take.INF.down
      dirait-on.
      say.COND.3SG-GEN_PRON
      'They want to take me down at any cost, **it seems** (lit. '**one would say**').'
                                                        [Littell 2006, *Frantext*]

(58) *Dites   donc :   elle [= la maison] est   à   vendre ?*
      tell.IMP.2PL so   it [= the house]   be.PRS.3SG for   sale
      *Abandonée, **on**   dirait.*[38]
      abandoned   GEN_PRON   say.COND.3SG
      'Tell me: Is the house for sale? Abandoned, **it seems** (lit. '**one would say**').'
                                                        [Garat 2010, *Frantext*]

Its evidential status is confirmed by the application of the minimal sentence-pair test: if *on dirait/dirait-on* is removed from the sentence, the propositional content is no longer interpreted as being inferred by the speaker, but as indicating what the speaker knows (without him/her indicating *how* s/he knows). In examples (56)–(58), the unit is used to signal that the speaker is not able to perceive directly what s/he is stating (Rossari 2012a: 66) and that the propositional content was inferred on the basis of perceived evidence. The nature of the propositional content supports this analysis. Example (56) describes a state of affairs internal to someone other than the speaker, more specifically an intention (*ils veulent* 'they want') – which can only be known either through a declaration by the referent of *ils* 'they' or through abductive inference by the speaker on the basis of evidence (signs).

Let us try to explain how *dirait-on* can fulfill this evidential function with the morphemes of which it is composed. The conditional (or *-rait* form) is used here as a mood with the meaning of potentiality or counterfactuality. The clause in which it appears is prototypically linked to an implicit *if*-clause (cf. Rossari 2012a: 77), which situates the realization of the act of saying by a third party[39] in a potential/counterfactual world, linking it to the realization of the condition in the implicit *if*-clause: "I and others would say that p *if… (they could see x, y and z)*". The final result is not a reportive marker, like, e.g. *dit-on* 'one

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38 On the difference between *on dirait* and *on le dirait*, and between *on dit* and *on le dit*, see Anscombre (2010: 13–14). This also shows the conventionalization of the meaning of *on dirait*, *dirait-on* and of *on dit, dit-on*.

39 The third party is referred to by the unspecified *on* 'one', which does however include the speaker.

says' in the indicative mood, but an inferential marker: you are not actually saying what you heard from somebody else, but you are saying that observed elements of reality would lead somebody (including you) to say such and such. That the idiom actually introduces the viewpoint of the speaker and not the viewpoint of somebody else denoted by the pronoun *on* 'one' is shown by the impossibility of following the first sentence in (59) with a sentence in which the speaker gives an opinion contrary to that expressed in the first one:[40]

(59) *Paul   est   honnête, **on**   **dirait**   *Mais*
      Paul   be.PRS.3SG honest   GEN_PRON   say.COND.3SG   but
      à mon avis,   il   ne   l'est   point.
      in my opinion he   NEG   it.OBL.être.be.PRS.3SG   NEG
      'Paul is honest, **it seems**. *But in my opinion, he is not.'

                                                    [cited from Myong 2004: 43]

These idioms have an epistemic overtone of low certainty of the information or low confidence by the speaker, similar to that of *sembler* and *paraître*.

5.3 Reportives

Reportive evidentiality is expressed by the conditional mood, by the idiom *paraît-il*, by a few adverbs, a few prepositions, and by SAY-verbs in parenthetical use.

5.3.1 Reportive use of the conditional

The French conditional mood[41] – and its three main uses, namely temporal use of 'future in the past', (non-epistemic) modal use of potentiality/counter-factuality, and reportive use –[42] was one of the first French markers to be described as evidential (Dendale 1991, 1993). Here are three examples of the reportive use:

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40 For an alternative explanation, see Anscombre (2010: 21–22).
41 It is, however, considered a 'tense' by most contemporary French linguists. See fn. 3.
42 An example of the temporal use is: *Elle a promis qu'elle **viendrait**.* 'She would come'. An example of the (non-epistemic) modal use of potentiality/counterfactuality is: *Si j'étais riche, **j'habiterais** un château.* 'If I were rich, I **would live** in a castle'. For criteria distinguishing between the different uses see Dendale and Kreutz (2014) and Haillet (1995).

(60) *L'ouragan   de   Honduras. Il y **aurait**   plusieurs*
      the.hurricane of   Honduras   there.be.COND.3SG several
      milliers   de   victimes.
      thousand.PL   of   victim.PL
      'The hurricane in Honduras. There are **reportedly** several thousand vic-
      tims.'   [cited from Wilmet 2010: 324]

(61) *Une   manifestation   **aurait rassemblé**   quelques*
      ART.INDF.SG   demonstration   gather.COND.PRF.3SG   several
      centaines   de   militants
      hundreds   of   activists
      'A demonstration **reportedly gathered** a few hundred activists.'
                                              [cited from Abbadie et al. 1985: 76]

(62) *Une   fusée lunaire   **prendrait**   son depart   l'an prochain.*
      a   lunar rocket   take.COND.3SG   its   departure   the next year
      'A lunar rocket **reportedly will** be launched next year.'
                                            [cited from Chevalier et al. 1964: 356]

Both the simple, non-compound, form of the conditional (60) and (62) – which
locates a state of affairs in the present or (more rarely) in the future[43] – and the
compound form (61) – which qualifies a state of affairs as accomplished, and
thus locates it in the past – have a reportive use. The reportive conditional can
appear in an independent clause, in the main clause of a complex sentence, in a
complement clause,[44] in a relative clause, or in an adverbial clause.

The reportive conditional can also appear in interrogative sentences of the
'intonation type'[45] (see the second question in (63) and (64)), which are then
interpreted as echo questions and/or confirmation questions:

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43 Kronning found exceptional examples in which even the simple form refers to a past event
(Kronning 2005: 306–307 fn. 20).
44 If the conditional appears in a complement clause, it will always be after a verb in the
present (a) or the 'passé composé' tense (b) but not (normally) in another past tense: (a) *On
chuchote qu'il y **aurait** de l'or là-bas* [constructed]. 'Some whisper that there is **reportedly** gold
there.' (b) *Hier, l'ONU a déclaré que 600 000 personnes **auraient été** déplacées en raison des
violences qui embrasent le pays depuis le 30 décembre* [Liberation.fr 2008.02.12]. 'Yesterday, the
UN declared that 600,000 people have **allegedly** been displaced because of the violence that
has gripped the country since December 30th.'
45 Syntactically they look like declarative sentences, but they have rising intonation (and, in
the written form, a question mark).

(63) *Que*   *dites-vous,*   *mon*   *père ?*   *Mes sœurs*
what   say.PRS.2PL-you   my   father   my.PL sister.PL
Shiya   *et*   *Gamawuki*   **seraient**   *vivantes ?*
Shiya   and   Gamawuki   be.COND.3   alive.PL.F
'What do you say, Father? My sisters Shiya and Gamawuki are alive, **it is
said**?'   [Cerfberr, cited from Damourette and Pichon 1936: V, 442]

(64) – *Et*   *vous*   *vous*   **seriez** *croisés*   *à*   *Dresde,*   *tous les*   *deux*
 and you   REFL   meet.COND.PRF.2PL at Dresden   all   the   two
Quelle   *extraordinaire*   *coïncidence !*
what   extraordinary   coincidence
'– And you **are said** to have met at Dresden, both of you? What an ex-
traordinary coincidence!'
[Sulitzer 1984, cited from Dendale and Kreutz 2014: 25]

When it appears in 'intonational' equivalents of *wh*-questions of the type seen in
(65) (here with *quand* 'when'), the reportive conditional is analysed as qualifying
only the presupposed part of the interrogative sentence (*Elles fusionneraient*),
which is presented by the conditional as the content of what was said by some-
body else (Azzopardi 2011: 287).

(65) – *Aux*   *dernières*   *nouvelles,*   *les*   *deux*   *compagnies*
at.ART.DEF.PL last.PL.F   news   ART.DEF.PL   two   company.PL
vont fusionner.   – *Ah bon ?*   *Elles*   **fusionneraient**   *quand?*
merge.FUTP.3PL   is that so   they   merge.COND.3PL   when
'– At the last news, the two companies will merge. – Oh? They **are said
to be** merging when?'   [cited from Azzopardi 2011: 296]

Apart from an evidential meaning component of 'information taken from a third
party or from rumours', two other meaning elements have been identified as
being present when the reportive conditional is used: uncertainty of the infor-
mation, and non-commitment of the speaker regarding the truth of the proposi-
tion. There is no agreement amongst scholars (Dendale 1993, 2018; Abou-
da 2001; Kronning 2002, 2005, 2012, amongst many others)[46] about the do-
minant meaning element(s) of this use of the conditional, the reportive element
or the non-commitment element. The meaning element of uncertainty, however,
is the one most often mentioned in grammar books (Van de Weerd and
Dendale 2018); it is considered a contextual effect generated by conversational

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46 For a bibliography on the conditional in French see Dendale and Vetters (2001) and Van de
Weerd and Dendale (2017).

implicature. This effect of the speaker's uncertainty can be cancelled by elements of the context. In (66) for instance, the contexts show that the speaker is not uncertain about the fact that s/he was allegedly manipulated. Saying that the allegations are absurd and grotesque is indicating that the content is simply false for the speaker. The only reason why the conditional is used here is evidential: to signal that the information came from somebody else:

(66) *Et   quant aux   collusions   dont   on   a parlé:*
      and   as for.the collusion.PL of which   GEN_PRON   speak.PRF.3SG
      *je **serais manipulé**,   etc. C'est   absurde   et*
      I   manipulate.COND.PASS.1SG   etc. it.be.PRS.3SG absurd   and
      à la limite   du   grotesque.
      bordering   on   grotesque
      'And as to the collusions we have spoken about: **It has been said** that I
      have been manipulated, and so on. It is absurd and bordering on gro-
      tesque.'   [TV Channel TF1 – French news]

In Dendale (1993, 2018) it is argued that the evidential meaning component is a stable meaning element. It is not cancelable by elements of the cotext and can explain the two other elements of meaning, the non-commitment element and the uncertainty element. The non-commitment element, it is argued, is a default consequence of the (evidential) 'report' element: any information that one gets from others and that is marked as such is information s/he is not (directly) accountable for. The uncertainty meaning element of the conditional can be linked by implicature to the non-commitment component. Both the non-commitment and the uncertainty meaning elements can thus be canceled, as is shown by one of Kronning's constructed examples, where *de fait il l'est* 'indeed he is' confirms the truth of what is said in the main clause and thus cancels the non-commitment element (for an authentic example, see Kronning 2014: 70).

(67) *D'après   Marie, Paul   **serait**   riche.   De fait*
      according to   Mary   Paul   be.COND.3SG rich   indeed
      il   l'est.
      he   it.OBL.be.PRS.3SG
      'According to Mary, Paul **allegedly** is rich. And indeed he is.'
                                               [cited from Kronning 2005: 303]

The conclusion Dendale (1991, 1993, 2018) draws from all this is that this use of the conditional is a clear reportive evidential, with report as its sole inherent semantic feature. On top of that, there is no convincing hypothesis explaining how the reportive conditional is linked historically to the two other uses (and

meanings) of the verb form (see the end of Section 5.5). Difficult to say thus, at least for the moment, whether the reportive use is an extension of a mood or a tense. Synchronically, it has its value on its own, which is evidential.

5.3.2 Markers derived from SEEM-verbs

It is generally acknowledged that the impersonal construction of *paraître* 'appear', *il paraît que*, together with its parenthetical variants *paraît-il, paraît* and its prepositional variants *à ce qu'il paraît, à ce qui paraît,* are used as markers indicating that the speaker has acquired the information through a report by somebody else or has picked it up from rumours (Ducrot 1984: 154, Bourdin 1986: 55, Thuillier 2004a: 30, among others). These markers have completely lost their original SEEM-function and can only function as reportive markers, not as inferential markers anymore. They leave the identity of the original speaker unspecified. By default, they will thus be interpreted as markers of hearsay, akin to the parenthetical use of *dit-on* 'it is said' in (69) (cf. Bourdin 1986: 55):

(68) *Il **paraît   qu**'il   a   un   enfant illégitime.*
      he appear.PRS.3SG COMP.he have.PRS.3SG a   child   illegitimate
      *Il   a,   **paraît-il**,   un   enfant illégitime.*
      he   have.PRS.3SG appear.PRS.3SG-it a   child illegitimate
      'He **allegedly** has an illegitimate child.'   [constructed]

(69) *Fils, **dit-on**,   d'un père païen et d'une mère*
      son   say.PRS.3SG-GEN_PRON of.a father pagan and of.a   mother
      chrétienne, il ne   fut baptisé   que tardivement.
      christian.F he NEG   baptize.PST.PFV.PASS.3SG only tardily
      'Being the son, **as is said**, of a pagan father and a Christian mother, he was baptized rather late.'   [Ontalis 1998, *Frantext*]

In their reportive use, *il paraît que* and its parenthetical variants are often equated with the reportive use of the conditional mood in French (Ducrot 1984: 154, Bourdin 1986: 55, Authier-Revuz 1992: 39, among others); see Section 5.3.1.

The prepositional construction *à ce qu'il paraît/à ce qui paraît* (69a) has the same reportive value as the non-prepositional parenthetical construction (69b) and the CTP construction (69c):

(70) a. *Alors, tu vas   nous   quitter, **à   ce   qui***
          so   you go-PRS.2SG us.OBL leave-INF to   DEM.SG.M REL
          ***paraît**.*
          appear.PRS.3SG

b. *Alors,* *tu* *vas* *nous* *quitter,* **il** **paraît**.
   so   you go-PRS.2SG us.OBL leave-INF it-N.3SG appear.PRS.3SG

c. *Alors,* **il** **paraît** **que** *tu* *vas*
   so   it-N.3SG appear.PRS.3SG that-COMP you go-PRS.2SG
   nous *quitter.*
   us.OBL leave-INF
   'So, you are going to leave us, **it is said**.'   [Zobel 1950, *Frantext*]

According to Bourdin (1986: 55–56), *il semble que* can also be used, in comparable contexts, as a marker of what he calls "un jugement à base extra-subjective" (which means "with evidence (*à base*) coming from someone else (*extra-subjective*)"), thus with reportive value. This is an authentic example, but such examples are very hard to find:

(71) *Au moment où j'écris cet article, on ne trouve plus en ligne que quelques exemplaires de l'édition Professionnelle sur le Microsoft Store [...] et quelques exemplaires des deux versions sur le site de Carrefour Online, qui devraient rapidement disparaitre. Si vous désirez encore réserver un exemplaire,*
      il **semble** **que** *l'on* *en* *trouve* *toujours dans* *les*
      it seem.PRS.3SG COMP Ø.GEN_PRON PART find.PRS.3SG still in the
      grandes surfaces et *les* *chaines* *de* *magasins* *spécialisés.*
      supermarket.PL and the chain.PL of store.PL specialized.PL
      'At the time of writing this article, you can find only a few copies online of the Professional edition on the Microsoft Store [...] and a few copies of the two versions on the Carrefour Online website, which should quickly disappear. If you still wish to reserve a copy [of that computer program], you can still find it, **it is said/the rumor goes**, in supermarkets and chains of specialized stores.'   [*frTenTen12*]

5.3.3 Sentence adverbs

French has three adverbs with a reportive meaning: *soi-disant, prétendument, censément.*

5.3.3.1 *soi-disant*

Soi-disant is a lexical unit originally composed of the reflexive pronoun *soi* 'himself/herself' and the present participle of the verb *dire* 'say'. It can function

as an (invariable) adjective (meaning 'so-called, supposed') or as an adverb (meaning 'supposedly'), depending on the word it qualifies. This is one of the rare cases of heterosemy in the field of French evidentials. As an adverb, *soi-disant* has propositional scope: in (72)–(73) it qualifies the rest of the sentence: *Tous cherchaient à nous protéger*; *il y avait des garanties que...*:

(72) *Tous*   *cherchaient*   *à*   *nous*   *protéger,*   **soi-disant**.
all   seek.IMPF.3PL   to   us.OBL   protect.INF   allegedly
'All **allegedly** were seeking to protect us.'
[Schreiber 1996, cited from Féron and Coltier 2013: 289]

(73) *Il y*   *avait*   **soi-disant** *des*   *garanties*   *que*
there   be.IMPF.3SG   allegedly   ART.INDF.PL guarantee.PL COMP
personne   *ne*   *nous*   *attaquerait.*   *Mais* *ils*   *ont menti.*
nobody   NEG   to us.OBL   attack.COND.3SG   but   they   lie.PRF.3PL
'There were **allegedly** guarantees that no one would attack us. But they lied.'   [*frTenTen12*]

The effect of the presence of *soi-disant* in the sentence is double. On the one hand, it signals that the propositional content comes from somebody else, often (but not necessarily) one of the participants described in the sentence (*tous* in ex. 72); this is its reportive feature. On the other hand, it signals that the speaker distances himself/herself from the truth of what is said (i.e. has doubt about the truth of what is said or even rejects it). Although historically, the reportive feature seems to have been the first semantic feature of the unit (Féron and Coltier 2013), its refusal-of-commitment function is nowadays its dominant feature[47] and the main reason why this unit is used. Both meaning features, however, seem to be present always (Féron and Coltier 2013: 276, 280, 288, 291), none of them seems cancelable and none of them really seems to be the consequence of the presence of the other feature (anymore) and thus an overtone of it.

    Soi-disant can be combined with *que*, as in (74), which brings the phrase close to a (causal) conjunction with roughly the same meaning as – but seemingly more autonomous than – *sous prétexte que* 'on the pretext that' (Rosier 2008: 101), since

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47 This is not a pragmatic effect, i.e. a consequence of the feature of report (cfr. Section 5.3.1 for the case of the conditional), which would be cancelable. It therefore is impossible to say: *Il a **soi-disan**t passé ses vacances en Grèce; ?les photos qu'il y a faites sont superbes* (cited from Féron and Coltier 2013: 276). 'He **allegedly** (= 'it is said + but I do not believe this') spent his holidays in Greece; ?the photos he made there are superb.'

it often heads a clause.[48] Apart from that, it seems to have exactly the same two meaning features as the adverbial *soi-disant* described above:

(74) *Maria, ce matin, l'avait suppliée de lui donner la clé de l'appartement pendant leur absence.*
Maria, this morning, had begged her to give her the key of the apartment during their absence.
Soi-disant qu'*elle*   *avait rompu*   *avec son Berbère,*
allegedly   because.she   break.PST.PRF.3SG.up   with   her   Berber
lequel   *la*   *cherchait*   *pour*   *la*   *tuer.*
REL   her.OBL   seek.IMPF.3SG   to   her.OBL   kill.INF
'Maria, this morning, had begged her to give her the key of the apartment during their absence. **Allegedly** (because) she had broken up with her Berber, who was looking for her in order to kill her.'

[Manchette 1976, *Frantext*]

In this passage, the sentence headed by *soi-disant que* provides the reason given by Maria to the person she has spoken with as to why she wanted the key of the apartment. The unit indicates (a) that the information that she had broken up with her boyfriend was obtained by the speaker from Maria herself and (b) that the speaker refuses to commit himself/herself regarding the truth of that statement.

When *soi-disant* is used to qualify a unit smaller than a sentence, e.g. a phrase, as in (75), or even one single word, as in (76), it can nonetheless be considered to have propositional scope in the sense of Boye (2010: 292): it then modifies an elliptic clause (Féron and Coltier 2013: 277), like *He did so in order to...* and *The death of the young girl was accidental* in, respectively:

(75) *Il a travaillé*   *tout l'été,*   **soi-disant**   *pour*   *s'acheter*
he work.PRF.3SG   all   the.summer   supposedly   to   REFL.buy.INF
une   *nouvelle*   *batterie.*
a   new.F   battery.SG.F

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48 There is little information on this unit in dictionaries and there exist almost no linguistic studies on the topic. Authors like Mørdrup (1976), Bacha (1998), Delahaie (2014), Anscombre (2016, 2017), in writing about the construction ADV + *que*, do not mention *soi-disant* amongst the adverbs that can take *que*. The origin of the causal meaning of *soi-disant que* is thus still not well documented. In my view, given the examples we studied, it is not impossible that *que* is a complementiser of a SAY-verb, a verb that has been dropped. In its remaining context, what is described is often a situation of communication: *supplier* 'beg' in (74). This is even clearer in this example: *Mais R'vix lui avait sérieusement dit qu'il devait faire des efforts pour se lier avec ses camarades. **Soi-disant qu'**il se tenait trop à l'écart et que ce n'était pas bien* (FrTenTen12). 'But R'vix <u>had seriously told him</u> that he had to make an effort to bond with his comrades. **Supposedly** he was standing too far away and that was not good'.

'He worked all summer, **supposedly** <u>to buy a new battery</u>.'

[Manoeuvre 1985, cited from Féron and Coltier 2013: 289]

(76)   *il   doit   enquêter   sur   la   mort* **soi-disant**
       he must.PRS.3SG investigate.INF on   the   death allegedly
       <u>accidentelle</u>   d'une   jeune   fille.
       accidental.F   of.a   young   girl
       'He must investigate the **allegedly** <u>accidental</u> death of a young girl.'

[*frTenTen12*]

5.3.3.2 *prétendument*

Another adverb, functionally and semantically near to *soi-disant* (and still to be researched in more detail), is *prétendument* 'allegedly, reportedly'. The *Trésor de la langue française* (TLFi) defines it as "d'une manière prétendue, supposée" ('in a pretended, supposed way'), the dictionary of *Antidote 10* as "d'une manière prétendue, <u>en donnant pour vraie une chose qui ne l'est pas</u>" ('in a pretended, supposed manner, <u>by presenting as true something that is not</u>'; emphasis added). Both dictionaries underline the origin of the phrase as a manner adverb (*d'une manière*). The word can have propositional scope, however, especially in sentence initial position, e.g. in (77), but also in cases where the adverb seems to determine one single word, e.g. the adjective *épuisés* 'sold out in (78), ('[The novels of Colette were] allegedly sold out'):[49]

(77)   *Howard Hughes avait la réputation d'être un [...] coureur de jupons.*
       Prétendument, *il   avait   des   affaires   avec*
       allegedly   he   have.IMPF.3SG ART.INDF.PL affair.PL with
       des   femmes   célèbres   comme
       ART.INDF.PL   women   famous.PL   as
       Katharine Hepburn, Ava Gardner, Bette Davis, Ginger Rogers et d'autres.
       'Howard Hughes was known to be a womaniser. **Allegedly**, he had affairs with famous women such as Katharine Hepburn, Ava Gardner, Bette Davis, Ginger Rogers and others.'   [*frTenTen12*]

(78)   *À   la   bibliothèque ne   figuraient ni   les   romans de Collette*
       in   the   library   NEG   be.IMPF.3PL NEG   the   novel.PL of Collette

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49 This can also be a noun phrase (**prétendument** *ma parente* '**presumably** my parent') or a prepositional phrase (**Prétendument** *pour élargir sa clientèle* '**presumably** for enlarging her clientele'). See also some examples in Aikhenvald (2004: 10).

(**prétendument** *épuisés) ni   les   œuvres de Simone de Beauvoir*
allegedly   sold out NEG the   work.PL of Simone de Beauvoir
'In the library, neither the novels of Colette (**allegedly** out of stock) nor
the works of Simone de Beauvoir were present.'   [Groult 2008, *Frantext*]

In all the contexts examined here, the adverb has a reportive function, meaning
'**some** say, **some** pretend that'. The unit thus has a hearsay function, rather than
a quotative one. It is not clear yet if it can also have a presumptive meaning on
behalf of the speaker ('I presume that'), or whether this impression comes from an
interpretation like 'some people suppose that', in which case, the adverb remains
a hearsay marker ('report of the presumptions made by others').

What is less clear than with *soi-disant* is the presence of the meaning ele-
ment of non-commitment of the speaker to the truth of the propositional content
or the strong distancing by the speaker from the truth. It seems that the adverb
is compatible both with an interpretation in which the speaker rejects the truth
of the proposition, for instance in (79), where the proposition expressed by *The
clothes were clean* is contradicted by what is said just afterwards (*The clothes
were full of lice*) – and an interpretation in which the speaker can be considered
to take a neutral stance regarding the truth of the proposition. In turn, in (80)
prétendument signals that the speaker has got the information about the dimen-
sions of the HTV Ville smartphone from someone else; the context explains that
s/he can neither confirm nor deny it on the basis of video sequences s/he saw:

(79) *Le prétexte pour ne pas nous rendre nos habits répondait à la même obses-
      sion de propreté : ils n'avaient pas été passés au désinfectant.*
      *Ceux qu'on   nous   donnait,   **prétendument** propres*
      those REL-GEN_PRON to us.OBL give.IMPF.3SG allegedly   clean.PL
      étaient   bourrés   de   poux.
      be.IMPF.3PL   full   with   lice
      'The excuse not to give back our clothes had to do with the same cleanli-
      ness obsession: they had not been disinfected. Those we were given,
      which were **allegedly** clean, <u>were full of lice</u>.'   [Veil 2007, *Frantext*]

(80) **Prétendument** *le   [HTC] Ville est   plus mince   que*
      allegedly   the [HTC] Ville be.PRS.3SG thinner   than
      l'iPhone 4S,   mais cela   reste   difficile à   discerner
      the.Iphone 4S   but   that   remain.PRS.3SG difficile to   discern.INF
      à partir des séquences vidéo   que   nous   avons vues.
      from.the   video sequence.PL   that we   see.PRF.1PL
      '**Allegedly** the [HTC] Ville is thinner than the iPhone 4 S, <u>but this re-
      mains difficult to discern from the video sequences we saw</u>.' [*frTenTen12*]

If the value of non-commitment in the case of *prétendument* has to be linked to the context of use of the adverb, the adverb itself must be considered neutral or indeterminate as far as commitment is concerned and thus would be a pure hearsay evidential.

5.3.3.3 *censément*

Another adverb with a meaning comparable to that of *prétendument* is *censément* 'supposedly', defined by the French dictionary TLFi (*s.v. prétendument*) as 'according to what is deemed to be in conformity with reality, <u>according to what is said or believed</u>' (*s.v. censément*; my translation and emphasis). This too is an adverb that has not been subjected to an in-depth linguistic study yet:

(81)   *J'allai   le   voir,   dans ce village du   Valais*
       I.go.PST.PFV.1SG him.OBL   see.INF   in   that village of.the Valais
       *où   il achevait   **censément** sa   convalescence, où,*
       where   he finish.IMPF.3SG supposedly   his   convalescence where
       <u>*en réalité*</u>, *il   se   préparait   à   mourir.*
       in reality   he   REFL prepare.IMPF.3SG   to   die.INF
       'I went to see him, in this village of the Valais, where he was **supposedly** finishing his convalescence, where, <u>in reality</u>, he was preparing to die.'

       [Gide 1935, cited from *TLFi*]

Censément in (81) qualifies the content 'he finished his convalescence' as a report obtained from the patient by the speaker (narrator), a report that is declared false (for the speaker or even the patient; it is not clear from the cotext), in the rest of the sentence. So, this adverb also has an element of non-commitment to the truth.

5.3.4 Complex prepositions: *au(x) dire(s) de X/à en croire X*

Au dire de/aux dires de 'according to' is a complex proposition, which, under certain cotextual conditions[50] (described in Dendale 2019, 2020), has a clear and stable reportive meaning. It is combined with an NP designating either an individual (82) or a collective person (83), sometimes by metonymy (84), or with an

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50 These conditions distinguish the reportive use of the unit from other, non-evidential uses of the same sequence of words, e.g. *Il pense **aux dires de sa voisine*** 'He thinks **about what the neighbor said**'.

NP referring to the production of speech, the result of an utterance (*certains textes* in (85)):

(82) *[…] cet androgyne premier d'où les deux sexes*
[…] that first androgyne from where the two sex.PL
auraient été extraits après une opération douloureuse,
extract.COND.PRF.PASS.3PL after a operation.F painful.F
***aux dires de Platon**.*
to.the sayings of Plato
'this first androgynous person, from which the two sexes were extracted after a painful operation, **according to Plato**.'   [Arnaud 2010, *Frantext*]

(83) *elle n'est pas mal : une grande blonde, avec un nez*
she NEG.be.PRS.3SG NEG ugly a big.F blond.F with a nose
*trop long, mais fraîche et bien faite… **au dire***
too long but fresh and well make.PTCP to.ART.DEF.SG.M saying
***des gens**.*
of. the people.PL
'she is not unpretty: a big blonde, with a too long nose, but fresh and well made… **according to some people**.'   [Mirbeau 1900, *Frantext*]

(84) *le théâtre des Carmes était, **au dire***
the theatre of.the Carmes be.IMPF.3SG to.ART.DEF.SG.M saying
***de Paris**, le suprême refuge du goût, de la*
of Paris the supreme refuge of.the taste of ART.DEF.SG.F
compétence critique.
critical competence
'The Théâtre des Carmes was the supreme refuge of taste, of critical competence, **according to Paris**.'   [Duhamel 1941, *Frantext*]

(85) *[…] une allusion à ce fameux nabi qui florissait,*
[…] a allusion to that famous prophet REL flourish.IMPF.3SG
***au dire de certains textes** d'ailleurs*
to.ART.DEF.SG.M saying of certain.PL text.PL by the way
suspects, au temps des rois d'Israël
suspect.PL in.the time.PL of.the king.PL of.Israel
probablement fictifs.
probably fictious.PL
'an allusion to the famous prophet who flourished, **according to certain suspicious texts**, in the era of the probably fictitious kings of Israel.'
[Claudel 1938, *Frantext*)]

The NP that follows the preposition can also be replaced with a possessive, 2nd or 3rd person determiner placed before *dire(s)*:

(86) *Hampaté m'avait remis   une "shopping list", essentielle*
      Hampaté to me.OBL.give.PST.PRF.3SG a   shopping list   essential.F
      à ses dires,   pour le   retour   d'affection, sept   fragments
      to his saying.PL for   the   return   of.affection seven   fragment.PL
      de   Lui pour renouer   le   lien rompu avec la   France.
      of   Him to   renew.INF the broken link with ART.DEF.SG.F France
       'Hampaté had given me a "shopping list", essential **according to him,**
      for the return of affection, seven fragments of Him to renew the broken
      link with France.'   [Orsenna 1993, *Frantext*]

5.3.5 Markers based on SAY-verbs

Some reportive markers are built on one or another form of the SAY-verb *dire*. These markers are used parenthetically, some with very high frequency.

5.3.5.1 Parenthetical *dit-on*

Dit-on 'people say' is a highly frequent, small interpolated clause, relatively strongly conventionalized, which indicates that the propositional content comes from hearsay. In the cases below, the idiom is not the focus of the predication. It is backgrounded information. An open theoretical question is whether this can be considered an evidential or whether it is a marker of reported (direct or indirect) speech, as authors in that field have argued, certainly when it is combined with a quotation (as in (89)):

(87) *Hugo lui-même, **dit-on,***   *piocha   allègrement*
      Hugo him-self   say.PRS.3SG-GEN_PRON dig.PST.PFV.3SG joyfully
      dans son Dictionnaire pour les   moments   les   plus occultes
      in   his dictionary   for the   moment.PL the   most occult.PL
      de   son Notre-Dame de Paris.
      of   his Notre Dame de Paris
      'Hugo himself, **it is said**, joyfully dug into his dictionary for the most oc-
      cult moments of his Notre Dame de Paris.'   [*frTenTen12*]

(88) *La   bataille [dans la   guerre de   la   Raspille] fut*
      the battle   in   the war   of   the Raspille   be.PST.PFV.3SG

> *si   violente   qu'elle   a gravé   dans   la   mémoire collective*
> so violent.F that.she   etch.PRF.3SG in   the   collective memory
> *l'image   d'un véritable massacre. Elle   avait fait,*
> the.image of.a   real   massacre   it   make.PST.PRF.3SG
> **dit-on**,   *18   morts.*
> say.PRS.3SG-GEN_PRON   18   death.PL
> 'The battle [in the Raspille war] was so violent that it etched in the collec-
> tive memory the image of a real massacre. It **is said** to have killed 18
> people.'   [*frTenTen12*]

(89)   *Adler fut   un   être diminué   dès   l'enfance,*
       Adler be.PST.PFV.3SG a   diminished being from the.childhood
       cela est   bien   connu. [...] Il fut,
       that be.PRS.3SG   well   known   he be.PST.PFV.3SG
       dit-on,   *« atteint   de spasmes de   la   glotte ».*
       say.PRS.3SG-GEN_PRON   strike.PTCP of spasm.PL of   the   glottis
       'Adler was a diminished being from childhood, that is well known. [...].
       He allegedly had "spasms of the glottis".'   [*frTenTen12*]

5.3.5.2 Prepositional phrases with *à ce que/selon ce que + (entendre) dire*

The prepositional phrases *à ce qu'on dit* 'according to what people say' and *à ce qui se dit* 'according to what is said' are constructions centred around forms of the SAY-verb *dire* (*on dit* 'people say' and *se dit* 'is said', reflexive passive of *dire*), but it is hard to analyse the meaning of the phrase compositionally, because it is hard to attribute a separate meaning to the preposition *à*. Used in initial, final or internal position in the sentence, it indicates that the speaker has received the propositional content from hearsay, in a way similar to parenthetical *dit-on*, described above:

(90)   *Le   petit café   d'en face   est   fermé   et   le*
       the small cafe   of the other side be.PRS.3SG closed and the
       *patron a été arrêté   et, **à   ce   qu'on***
       boss   arrest.PRF.PASS.3SG and to   DEM.SG.M REL.OBL-GEN_PRON
       dit,   *fusillé.*
       say.PRS.3SG   executed
       'The small cafe across the street is closed and the boss was arrested and,
       according to what is said, executed.'   [Thomas 1995, *Frantext*]

(91)   *Le   parcours   qui   était   plutôt tristounet quand je*
       the course   REL   be.IMPF.3SG rather sad   when   I

l'   ai fait   en   2004   a été amélioré
it.OBL   do.PRF.3SG   in   2004   improve.PRF.PASS.3SG.M
(à   ce   qui   se dit).
to   DEM.SG.M   REL   REFL.say.PRS.3SG
'The course, which was rather sad when I did it in 2004, has been im-
proved ((according) **to what is said**).'   [*FrTenTen12*]

A somewhat related unit is *à ce que j'ai entendu (dire)* or *selon*[51] *ce que j'ai
entendu (dire)*, built on *entendre*, a HEAR-verb, which can be combined with the
SAY-verb *dire* (92) the 'written' variant of which is *à ce que je lis* (94). In the fol-
lowing examples, the prepositional phrase is not part of the propositional con-
tent of the sentence;[52] it is backgrounded and indicates the information source
for its propositional content. It can therefore be considered a reportive marker
with a kind of variable second part:

(92) *il y a   conflit   sur   les   méthodes   aussi*
      there be.PRS.3SG conflict   about   the   method.PL   also
      à   ce   que   j'ai entendu.
      to   DEM.SG.M   REL.OBL   I.hear.PRF.1SG
      'There is also a conflict over methods, **I heard**.'   [*frTenTen12*]

(93) *À   ce   que   j'ai entendu   dire,   leur   cri*
      to   DEM.SG.M   REL.OBL   I.hear.PRF.1SG   say.INF   their   cry
      [des Détraqueurs dans Harry Potter] est   horrible   et   désespéré.
      [of the Dementors in *Harry Potter*]   be.PRS.3SG   horrible   and   desperate
      Je le crois sans peine.
      I believe it without difficulty.
      '**From what I heard people say**, the cry of the Dementors in Harry Potter
      is horrible and desperate. I believe it without difficulty.'   [*frTenTen12*]

(94) *À   ce   que   je   lis   sur   Senweb   et*
      to   DEM.SG.M   REL.OBL   I   read.PRS.1SG   about   Senweb   and
      à   ce   que   j'entends[53]   *chez   les   Sénégalais,   elle*
      to   DEM.SG.M   REL.OBL   I.hear.PRS.1SG   from   the   Senegalese   she

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51 For a separate treatment of *selon*, see Section 5.4.
52 This would be the case in a sentence like: *Cela me fait penser **à ce que j'ai entendu** dire à
Bruxelles par Carl Bernstein [...]: ...* (*frTenTen12*). '*This reminds me **of what I heard** Carl Bern-
stein say in Brussels: ...*'.
53 Here the unit is, more exceptionally, in the present tense.

[Nafi, dans l'affaire Strauss Kahn]   est   à cent lieux   d'être
[Nafi, in the Strauss Kahn affair]   be.PRS.3SG   far from   to.be.INF
accueillie   à   DAKAR comme héros, star   ou   comme   victime.
welcomed   in   Dakar   as   hero star   or   as   victim
'**From what I read** about Senweb and **from what I hear** from the Senega-
lese, Nafi [in the Strauss-Kahn case] is far from being welcomed in Dakar
as a hero, star or victim.'   [*frTenTen12*]

5.4 Indifferent indirect markers: prepositions *selon X* (*d'après X*)

This section examines the specific case of *selon* and *d'après*, whose main use is
reportive, but which also have a minor inferential use. These markers thus be-
long to indirect evidentiality in a rather undifferentiated sense; the nature of *X*,
as source of information, will depend on the general content of the sentence.

5.4.1 Reportive use

The preposition *selon* 'according to' has been attributed three main uses in
French. Its polysemy is extensively described in Coltier's unpublished PhD
(2000) (see Coltier 2003), where the author distinguishes *selon*origin, *selon*conformity
and *selon*dependence. The only use of interest to us is the 'origin' use. Under this
heading, the author regroups evidential uses I would call reportive and uses I
would call inferential, and this is why this marker is in this section:

(95) **Selon   la   police**, la   manifestation   a rassemblé
    according to   the   police   the   demonstration   gather.PRF.3SG
    3000   personnes. En fait,   il y en   avait   5000.
    3000   people.PL in fact   there.PART   be-IMPF.3SG   5000
    '**According to the police**, the demonstration gathered 3000 people. In
    fact, there were 5,000.'   [cited from Coltier 2003: 121]

The best-known, most frequent case of *selon*origin is the one followed by a NP
referring to a human being (95)[54] and expressing a report by the speaker of what
has been said. According to Coltier, *selon* in that case does not say anything

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54 Note, however, that this is not a sufficient condition for the categorization as 'origin' use,
because both of the other uses can also combine with NPs referring to human beings. It is only
very typical for the 'origin' use.

about the commitment of the speaker regarding the truth of the propositional content – i.e. it is commitment-neutral – because the use of the word is compatible with contexts where it is clear that the speaker considers the clause headed by *selon* NP as true (96), contexts where s/he considers it false (97), and contexts where s/he has (or utters) no position regarding the content of the clause (98). All three possible overtones are thus compatible with *selon* + NP, like all other values of certainty:

(96) *Il   va falloir   trouver   un   remplaçant   à   Marie: selon*
     it   need.FUTP.3SG find.INF   a   replacement   to   Mary   according to
    ***Pierre**, elle va être   absente   plus de   six   mois.*
    Peter   she be.FUTP.3SG absent.F   more than six   month.PL
    'It will be necessary to find a replacement for Mary: **according to Peter**, she will be absent for more than six months.' [cited from Coltier 2003 :119]

(97) ***Selon**   eux,   notre manifestation était   illégale,   <u>mais</u>*
    according to   them   our   demonstration be.IMPF.3SG illegal.F   but
    <u>*c'est*</u>   <u>*faux*</u>   *puisque nous   avons rempli   toute*
    it.be.PRS.3SG wrong   since   we   complete.PRF.1PL   whole
    la   procédure.
    the   procedure
    '**According to them**, our demonstration was illegal, <u>but that's not true</u>, since we followed the whole procedure.'   [*frTenTen12*]

(98) ***Selon**   les pompiers,   deux ailes   du bâtiment   sont parties*
    according to   the fire fighters   two wing.PL of.the building go.PRF.3PL
    *en   fumée. **D'après   le   concierge**, ce sont   carrément*
    in   smoke according to the janitor   it be.PRS.3PL downright
    trois ailes   qui ont été détruites.
    three wing.PL   REL destroy.PRF.PASS.3PL.F
    '**According to the firefighters**, two wings of the building went up in smoke. **According to the janitor**, downright three wings have been destroyed.'   [cited from Coltier 2003: 126]

Note, however, that *selon* + NP can be combined with the reportive conditional, in which case the commitment of the speaker seems low (99):

(99) ***Selon**   Abdoul Karim, le   chef   du   village,*
    according to   Abdoul Karim   the   chief of.the   village
    les bombes américaines   <u>auraient fait</u>   200   morts.
    the American bomb.PL   cause.COND.PRF.3PL   200   death.PL

'**According to Abdoul Karim**, the village chief, the American bombs <u>allegedly</u> have killed 200 people.'

      [Newspaper *Libération,* 19-10-2001, cited from Kronning 2005: 309]

The reportive use also occurs with NPs other than those referring to human beings, namely with NPs referring to objects or entities capable of containing and transmitting information (e.g., *texte*, *tradition*, *archives*, *données* 'data', *inscriptions, ce qui a été écrit dans* … 'what is written in …'), or objects that are the result of a product of the mind (*hypothèse* 'hypothesis', *conception*, *doctrine*, *la loi* 'the law', etc.); for details see Coltier (2003):

(100) ***Selon   un   rapport officiel***, *11.000 personnes sont mortes*
        according to a   official report   11,000 people.PL die.PRF.3PL
        ou disparues   pendant la   dictature.
        or   disappear.PTCP.PL during   the dictatorship
        '**According to an official report**, 11,000 people died or disappeared during the dictatorship.'   [*frTenTen12*]

(101) ***Selon   le   texte apocryphe des   "Actes de Thomas"***,
        according to the apocryphal text of.the   "Acts of Thomas"
        il   partit   évangéliser   l'Inde.
        he   leave.PST.PFV.3SG evangelize.INF   ART.DEF.SG.India
        '**According to the apocryphal text of the "Acts of Thomas"**, he left to evangelise India.'   [*frTenTen12*]

(102) ***Selon   son hypothèse***, *cette viande   aurait été*
        according to his   hypothesis this meat   be.COND.PRF.3SG
        taboue   dans la   partie méridionale et   occidentale de
        taboo   in   the part   southern.F and   western.F of
        l'Asie   intérieure avant   l'islamisation.
        ART.DEF.SG.Asia inner   before   the.islamization
        '**According to his hypothesis**, this meat (allegedly was; lit. **would have been**) taboo in the southern and western part of inner Asia before Islamization.'   [*frTenTen12*]

5.4.2 Inferential use

In certain cases, *selon*origin does not signal a report of content created by somebody else, but signals that the speaker himself/herself created the content, either by inference or by what Coltier (2000, 2003) calls "transfer", but which

could be considered a kind of inference. These are cases in which *selon* must be considered an inferential. In (103), the speaker 'transfers', i.e. applies the thoughts of Epicurus to somebody – in this case the interlocutor – who, of course, did not know Epicurus personally. A reportive interpretation is thus excluded, and so the inferential one is the only possible one:

(103) *Je   viens   de   relire   Épicure.   Eh, bien,*
        I   come.PRS.1SG   from   reread.INF   Epicurus   well
        *figure-toi   que   **selon**   **Épicure**, tu   es*
        imagine.IMP.2SG.REFL COMP according to Epicurus you   be.PRS.2SG
        heureux.
        happy
        'I have just read Epicurus again. Well, imagine that, **according to Epicurus**, you are happy.'   [cited from Coltier 2013: 126]

With certain types of NPs,[55] *selon* can be considered a more typical inference marker. Different factors, carefully described in Coltier (2000), determine whether *selon* + NP will have a reportive or an inferential use.[56] A quick glance at corpus data shows that there are at least four types of nouns that could be said to give rise to an inferential interpretation with *selon*:

(i)   Nouns referring either to **a physical (perception) and/or cognitive operation** that normally produces knowledge, or to the result or object of such an operation, not necessarily verbalized (*autopsie* 'autopsy', *sondage* 'survey poll', *calculs* 'calculation', *estimation, prévisions* 'predictions', *les premiers éléments de l'enquête* 'the first elements of the investigation', *étude* 'study', *constatation, constats, observations*). Some of these nouns have two interpretations: either *selon* + NP is considered as a marker of report (the autopsy report, the written results of a calculation, a study; see ex. (106), or as a marker of cognitive activities and thus a marker of a form of inference (as in the case of *autopsy* in ex. (104); cf. also *survey, study ...* as mental activities, as forms of examination or research in ex. (105)–(106):

(104) *[Said either by the doctor himself who carried out the autopsy or by a journalist who reports on it]:*
        ***Selon   l'autopsie**, la   mort   remonte   à   48 heures.*
        according to the.autopsy the   death trace back.PRS.3SG to 48 hour.PL

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55 Many thanks to Danielle Coltier, who provided me with a list of those nouns which she collected during her research, and examples of her extensive corpus, some of which are used here.
56 Note that Coltier does not use the evidentiality terminology.

'**According to the autopsy**, the death occurred 48 hours before.'

[cited from Coltier 2003: 120]

(105) *[...]* ***selon*** *   un sondage effectué*   *dans*   *le*
according to a   survey   carry out.PTCP   in   the
journal   Le Monde *(en 1970)*   *une tournure passive*   *sur*
newspaper Le Monde   in 1970   one passive construction.F on
quatre   seulement comporte   *un complément d'agent [...]*
four   only   contain.PRS.3SG a complement of.agent
'**According to a survey carried out in the newspaper *Le Monde*** (in
1970), only one out of four passive constructions has an agent.'

[Le Goffic, 1993, cited from Coltier 2003]

(106) ***Selon*** *   un sondage effectué*   *par le*   *journal Le Monde*
according to a   poll   conduct.PTCP by the newspaper Le Monde
(1977), 10 % seulement des   *Français partent*   *en   vacances.*
(1977) 10%   only   of.the French   go.PRS.3PL on   holiday
'**According to a poll conducted by *Le Monde*** (1977), only 10% of
French people go on holiday.'   [cited from Coltier 2003]

(ii) Nouns with **iconic or semiotic status in relation to the external world**
(*photographie* 'picture', *dessin* 'drawing', *empreinte* 'fingerprints, tracks'*,
fossiles*, *restes* 'remains', *odeur* 'smell', *horloge* 'watch'); see (107)–
(108)[57]. They never indicate direct perception, but inference on the basis
of perception of something related to the described state of affairs (as
sign or image):

(107) ***Selon***   *les dessins*   *faits*   *lors de   la*   *mise à jour du*
according to the drawing.PL make.PTCP during   the upgrade of.the
mur, un objet sphérique identique   *se trouvait sous le*   *banc.*
wall a spherical object identical   be.IMPF.3SG under the bench
'**According to the drawings** made during the cleaning of the wall, an
identical spherical object was located under the bench.'

[cited from Coltier 2003: 130]

(108) ***D'après***   *la*   *photo,*   *le*   *député*   *assistait*
according to the photograph the deputy   attend.IMPF.3SG
à   *la*   *manifestation.*
to   the   demonstration

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57 Some of them fit better with *d'après* than with *selon*; see e.g. (108).

'**According to the photograph**, the deputy attended the demonstration.'

[cited from Coltier 2003: 129]

(109) *[La créature] pèse, **selon les empreintes de pieds***
[the creature] weigh.PRS.3SG according to the footprint.PL
qui peuvent s'enfoncer jusqu'à 5 cm dans le sol,
REL can.PRS.3PL REFL.sink.INF up to 5 cm into the ground
entre 300 et 400 kilos.
between 300 and 400 kilo.PL
'**According to the footprints** that can sink up to 5 cm in the ground,
the creature weighs between 300 and 400 kilos.' [*frTenTen12*]

(iii) Nouns referring to a form of **epistemic evaluation of the likelihood,** or
referring to a **mode of appearing** – describing how a state of affairs ap-
pears (*toute évidence* 'evidently', *toute apparence*, 'to all appearances'
(see Section 5.2.1.2), *toute probabilité* 'in all probability', *toute vraisemb-
lance* 'in all likelihood'); see (110), (6), (10):

(110) ***Selon toute vraisemblance**, les trois cadavres de Bercy*
in every likelihood the three corpse.PL of Bercy
sont signés Belleville.
sign.PRS.PASS.3PL.M Belleville
'**In all likelihood**, the three corpses of Bercy are signed Belleville.'

[Pennac 1989, *Frantext*]

These expressions are between epistemic markers and evidential markers of
inference.

5.4.3 Related prepositions

Several uses of *selon* can be replaced by the semantically close prepositions
d'après, suivant 'according to' (see Feigenbaum 2002) and *pour* 'for', whose
conditions of use and evidential potential have not yet been researched. We
cannot further elaborate on them here. In the following example *pour* can be
used to report the words of somebody, meaning 'My neighbor has said that…':

(111) ***Pour mon voisin** il n'y a pas de problème.*
for my neighbor there.NEG be.PRS.3SG NEG problem
'**For/according to my neighbor** there is no problem.' [constructed]

Unlike *selon* and *d'après*, however, *pour* cannot be used to refer to the evidence
from which an inference is drawn (see below) and therefore could not belong to

the indifferent indirect evidentials sub-class. Another particularity of *pour X* that separates it from evidentials is that it can indicate that the propositional content only refers to X's way of seeing things or even his/her <u>supposed</u> way of seeing things (as in (112)). In the last case, of course, it cannot be a reportive marker:

(112) **Pour Raymond Barre** *la cohabitation est un échec,*
for Raymond Barre the cohabitation be.PRS.3SG a failure
mais il se garde bien de le dire.
but he REFL avoid.PRS.3SG to it.OBL say.INF
'**For Raymond Barre** cohabitation is a failure, but he takes care not to say that.' [cited from Charolles 1987: 253]

Only elements of the context can show which one of the two interpretations is adequate. For elements of an analysis of *pour*, see Cadiot (1991), Coltier and Dendale (2004). For elements of analysis of *suivant* see Feigenbaum (2002).

5.5 Some notes on diachrony

Until now there have been few studies of the diachrony and evolution into evidential markers of most of the units presented above. The few existing studies concern *devoir*, *apparemment*, *visiblement*, the reportive conditional, and *soi-disant*.

The best-studied marker with evidential function, as far as its evolution is concerned, is undoubtedly *devoir* (Huot 1974, Kronning 1990, 1996, Vetters and Barbet 2006, Barbet 2010, Rossari et al. 2007, Becker 2013). It is known that the deontic use of *devoir* is diachronically anterior to its epistemic use (Kronning 1996). The deontic use finally gave rise to the epistemic use either by metaphorization (Fleischman 1982: 90, Sweetser 1984: 76, Bybee and Pagliuca 1985, Talmy 1988: 80)[58] or by metonymization, i.e. conventionalization of an implicature (Traugott and König 1991: 209–211).[59] As for the place of the alethic *devoir* in the evolution, see Kronning (1996) and Barbet (2010).

For the adverbs *apparemment* and *visiblement* there are detailed studies about their semantic evolution from manner adverbs to sentence adverbs, with evidential function.

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58 For earlier references see also Schrott (1997: 296 fn. 519).
59 For a short presentation of the two competing hypotheses see Kronning (1996: 102–103), for a discussion of these see Barbet (2015: 230–234).

The evolution of *apparemment* has undergone four stages, according to Anscombre (2013: 58–61; see also Anscombre et al. (2009: 53–56) and Rodríguez Somolinos 2010). In the first stage, in medieval French (until the 16th century), the use of the adverb is rather rare because it is in competition with that of the adjective *apparent*, meaning 'visible, obvious, evident'. When used, it is almost always a manner adverb, typically qualifying perception verbs like *voir* 'see', *sentir* 'feel' or the verb *monstrer* 'show', which all appeal to perception. It then means 'visibly, obviously' (Rodríguez Somolinos 2010: 347–348), a meaning that is close to the meaning of the noun *aparence* 'appearance' in medieval juridical language: 'what is visible, evident' and, by extension, 'what constitutes reliable evidence or a proof' (Rodríguez Somolinos 2010: 350, 354). Interestingly, in ordinary language *aparence* refers to a clue, originally visual, that allows to arrive at an undeniable conclusion.

In the second stage from 1650 onwards, the meaning 'obviously, visibly' becomes rare and a new meaning appears, indicating that the content of the utterance is the result of a conjecture, a supposition, a conclusion, drawn with high degree of confidence from evidence, meaning 'selon toutes les apparences, de toute évidence', i.e. 'according to appearances' (Rodríguez Somolinos 2010: 352). Epistemically, its degree of certainty is between that of *peut-être* 'maybe' and *certainement* 'certainly', as is shown by the existence of combinations like *peut-être et même apparemment* and *apparemment et même certainement*. The adverb, which can appear in sentence initial position, becomes an evidential marker ("un marqueur médiatif", Rodríguez Somolinos 2010: 353). What was certainty based on perception in the beginning now becomes inference based on evidence, with a little less certainty.

In the third stage, from the 17th century onwards, the adverb *apparemment* develops a meaning of 'only in appearance (not in reality)' (Rodríguez Somolinos 2010: 354). From now on, appearances can be misleading.

In the fourth stage, from *apparemment* 'selon toutes les apparences' an epistemically weaker meaning develops, initially at the end of interrogative sentences:

(113) *Cette dame est de votre compagnie,* **apparemment ?**
 that lady be.PRS.3SG from your company apparently
 'This lady is from your company, **apparently**?'

[cited from Anscombre 2013: 61]

The speaker is not sure of what s/he is saying and is only weakly committed to the truth of the proposition. This is the meaning that is nearest to the current meaning of this adverb, which has ousted the meaning of stage 2.

The adverb *visiblement*, attested since the 13th century, first occurred only as a manner adverb (until the 16th century). It qualifies verbs (e.g *apparoir* 'appear', but very soon also *congnut* 'he knew' and even *voir* 'see'), from its postverbal position and means 'in a visible manner', with *visible* referring to direct perception. Later (from the 17th century onwards), it began to qualify adjectives, still as a manner adverb (*visiblement éprouvé* (1652) 'visibly affected'). The first occurrence as a sentence adverb, with evidential value, is from 1627 (114). Simultaneously, examples appeared showing behavior that was ambiguous between a manner adverbial and a sentence adverbial:

(114) *Richelieu, ce   prelat, de qui   toute l'envie   est   de*
        Richelieu   that prelate of which all   the.envy be.PRS.3SG to
        voir   ta   grandeur   aux   Indes   se borner;
        see.INF your greatness in.ART.DEF.PL India   limit.INF
        *et   qui   **visiblement** ne fait cas   de   sa   vie*
        and   who   visibly   NEG pay.attention.PRS.3SG to   his   life
        que   pour   te   la   donner.
        except to   you.OBL it.OBL   give.INF
        'Richelieu, this prelate, whose envy is to see your greatness in India limited; and who **obviously** pays no attention to his life except to give it to you.'
          [Malherbe 1627, *Frantext*, cited from Vanderheyden and Dendale 2018: 16]

(115) *Mais,   Madame,   après tout, cette   amour   découverte,*
        but   Madame   after all   that   love   discover.PTCP.F
        *cause   **visiblement**   vostre   honte   et   ma   perte.*
        cause.PRS.3SG obviously   your   shame and my   loss
        'But, Madame, after all, this love discovered, **obviously/visibly** causes your shame and my loss.'
          [Mairet 1635, *Frantext*, cited from Vanderheyden and Dendale 2018: 16]

From 1800 onwards, the adverb became more mobile in the sentence and was put more systematically in sentence initial position. Nowadays the sentence adverbial use is by far the most frequent one.

For *soi-disant (que)*, Féron and Coltier (2013: 283–391) study the evolution from free syntactic combination to a fixed unit. In Middle French, *soi-disant* was a marker of reported speech, meaning 'qui se dit', i.e. 'what is said' (Féron and Coltier 2013: 284). Most often the unit is interpreted as not committing the speaker to the truth of what is being said, but in other cases, juridical ones, nothing in the contexts prevents there being an interpretation of commitment by the speaker (Féron and Coltier 2013: 285). Later on, the reservations of the

speaker, which were first only possible as an interpretation due to the context, became part of the coded meaning of the unit (Féron and Coltier 2013: 287). The unit underwent another evolution in that the meaning attached to the morphological component *soi* 'himself/herself' was lost, so that its meaning was extended to 'it is said'. Here, it is only the context that possibly allows the identification of the origin of the content (Féron and Coltier 2013: 288). These semantic evolutions are accompanied by a series of syntactic alternations concerning the position of the unit relative to the item it qualifies and the type of item that it can qualifiy. The first occurrences of the unit as an adverb date back to the last quarter of the 18th century.

Some brief historical notes on *sembler* and *paraître* can be found in Bourdin (1986: 58–59), where *sembler* is linked morphologically and etymologically to *ressembler* 'resemble', and where *paraître* 'appear, rise' is qualified as a movement verb.

As for the reportive conditional, Van de Weerd (2018) has shown that there exists very little reliable information on its origin and initial meaning. The oldest occurrences of this use of the conditional date back to 1507 in juridical texts (Van de Weerd and Dendale 2018), to 1577 in historical texts, and to 1631 in journalistic texts (Dendale 2010; Bourova and Dendale 2013; Dendale 2014). The reportive use of the conditional is linked to one of its two older uses (see Section 5.3.1): some link this to its temporal use (Patard and De Mulder 2012: 34; Van de Weerd 2021), others to its modal, potentiality/counterfactuality use (Rossari 2009: 73). The arguments in favor of each of the two origins remain incomplete and nondecisive. It is therefore difficult to say yet whether the reportive use is an extension of another of its uses.[60]

Abbreviations in glosses (not included in LGR)

FUTP	proximate future (French *futur proche*)
GEN_PRON	generic pronoun (French *on*)
IMPF	*imparfait*
OBL	oblique (for pronouns, can be accusative or dative)
PART	partitive (pronoun) (French *en*)
PFV	perfective
PRF	perfect (French *passé composé* and, in combination with PST, *plus-que-parfait*)
PST.PFV	past perfective (French *passé simple*)

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60 For a history of the form, early examples and a description of their account in French grammars, see Dendale and Coltier (2012), Bourova and Dendale (2013), Dendale (2014).

PST.PRF	pluperfect (French *plus-que-parfait*)
REFL	reflexive (pronoun or verb)
REL.OBL	oblique relative (direct or indirect object pronoun)

Data sources

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Juana I. Marín-Arrese and Marta Carretero

6 Evidentiality in Spanish

6.1 Introduction

Spanish is part of the Iberian-Romance group of languages of the Indo-European language family (see also chapters on Catalan, Galician and Portuguese in this volume), which originated in the Iberian peninsula from the 9th century onwards, evolving from Vulgar Latin. From the 15th century, Spanish spread to the Americas and the Caribbean, as well as to the Philippines and a number of other territories in Africa and Oceania.

In Romance languages like Peninsular Spanish[1] (henceforth Spanish), which do not have obligatory grammatical evidentiality, we find a broad array of lexico-grammatical expressions such as open lexical classes (verbs, adverbs and adjectives), a closed subclass of modal verbs, tense-aspect markers, parentheticals, conjunctive locutions and various evidential constructions, which share a range of semantic meanings to signal the information source. Spanish is a language with a rich morphology, with an inflectional system, mainly involving suffixes, which may convey multiple grammatical and semantic features, thus displaying fusional behavior.

In the literature we find various subdivisions of the domain of evidentiality, which draw on classifications proposed by Willett (1988), Plungian (2001), De Haan (2001), Diewald and Smirnova (2010), Cornillie et al. (2015), and Marín-Arrese (2015) among others. Overall, there is agreement with respect to three categories of evidentiality: (i) direct (sensory), (ii) indirect (inferential), and (iii) indirect (reportative). This classification is based on basic dimensions such as the 'Source of evidence', or the internal or external locus of information, and the 'Modes of knowing', or modes of access to knowledge (perceptual, inferential, or reports) (cf. Squartini 2008). To this we would add the 'Type of evidence', which pertains to the different nature of the evidence, whether visual, non-visual sensory, knowledge, or communication. Diewald and Smirnova (2010) describe the three categories of evidential values in the following terms:

(i)   Direct, signaling sensory access of speaker/writer to the evidence. This feature is "origo-inclusive", since it involves "the co-presence of the

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speaker and the event in the same deictic field" (Diewald and Smirnova 2010: 54).

(ii) Indirect inferential, which primarily denotes "the speaker's reflection of some evidence, i.e. they indicate the relation between the described situation and some other situation, which is treated by the speaker as evidence for the former" (Diewald and Smirnova 2010: 63).

(iii) Indirect reportive, which "express that the speaker has indirect access [to the event] based on someone else's perceptual and cognitive capacities" (Diewald and Smirnova 2010: 64).

In this chapter, as we did within the EUROEVIDMOD* project, we restrict our focus to two of the values and categories of evidential expressions in Spanish (cf. Marín-Arrese 2015, 2016, 2017a, 2018, 2020; Carretero et al. 2017):

(a) Indirect-Inferential Evidentiality (**IIE**): expressions involving SEEM-verbs, sentence adverbs, and constructions (*parece* 'it seems', *aparentemente* 'apparently', *claramente* 'clearly', *evidentemente* 'evidently', *obviamente* 'obviously', *da la impresión* 'it gives the impression'), SEE-verbs (*se ve* 'one can see'), KNOW-verbs (*se conoce* 'lit. it is known', 'it appears'), THINK-verbs (*calculo* 'I reckon'), SAY-verbs (*se diría* 'one would say'), modal verbs (*debe de,* lit. 'it must of'), and tense-aspect markers (*será/n* 'it/they will be', *habrá/n* 'there will be'/'will have' *sería/n* 'it/they would be'); and

(b) Indirect-Reportative Evidentiality (**IRE**): expressions with SEEM-verbs and constructions, adverbs and adverbial locutions (*parece ser,* lit. 'It seems to be', *según parece* 'according to (what) it seems', *aparentemente* 'apparently', *al parecer* 'apparently', *a lo que parece* 'apparently'), SAY-verbs (*se dice* 'it is said', *dicen* 'they say', *según dicen* 'according to what they say), KNOW-adverbs (*supuestamente* 'supposedly'), prepositions and complex prepositions (*según* 'according to', *de acuerdo con* 'according to') and tense-aspect markers (*sería/n* 'it/they would be', *habría/n* 'it/they would have').

Examples provided in the chapter are drawn from the following corpora: Corpus de Referencia del Español Actual (CREA), Corpus del Español del Siglo XXI (CORPES XXI), Corpus Diacrónico del Español (CORDE), Corpus Oral de Referencia de la Lengua Española Contemporánea (CORLEC) and Corpus of English Spanish Journalistic Discourse (CESJD).

The following examples illustrate the three categories of evidential values in Spanish (from: Marín-Arrese 2017a: 198–200):

(i) Direct Perceptual Evidentiality (DPE): These expressions indicate direct, non-mediated, access to visual or other sensoric evidence, which is external to the speaker/writer as conceptualizer.

(1) *<H1> Pues no, no, no has dicho lo que yo estaba pensando, Alfredo. Eh... María Asunción, que... cuando los soldados eh... iraquíes, eh... se rinden en una de esas tomas, ...*

en	*una*	*de*	*esas*	*imágenes*	**se**	**ve** <DPE>	*como*
in	one	of	those	images	MM[2]	see.PRS.3SG	COMP

uno de ellos besa la mano de un soldado americano, y eso te pone los pelos de punta, ¿verdad?

'<S1> Well no, no, you haven't said what I was thinking about, Alfredo. Eh... María Asunción, that... when the soldiers eh ... Iraqi, eh... surrender in one of those shots, in one of those images **you can see** ('it can be seen') <DPE> how one of them kisses the hand of an American soldier and that gives you the creeps, right?'   [CORLEC]

(ii) Indirect-Inferential Evidentiality (IIE): These expressions indicate personal indirect access to information, through inferences triggered on the basis of perceptual or conceptual evidence, or inferences based on knowledge acquired through social communication sources (reports, documents, other speakers, etc.).

(2) *... identifica que el visón es esa clase de visón; y luego, simplemente*

ya	*con*	*el*	*brillo*	*y*	*todo*	*eso*	**se**	**ve** <IIE>	*que*
just	with	the	shine	and	all	that	MM	see.PRS.3SG	COMP

es un visón un... un auténtico visón.

'... s/he identifies that the mink is that kind of mink; and then, just simply by the way it shines and all that **you can see** <IIE> that it is mink, real mink.'   [CORLEC]

(iii) Indirect-Reportative Evidentiality (IRE): Expressions of indirect, mediated access to the information through social communication with some external source(s). The perceptual verb *ver* ('see') is also found in the construction *por lo que se ve* (lit. 'from/by it which is seen', from what can be seen) with a reportative meaning, as in the following example:

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2 For abbreviated category labels, see *Leipzig Glossing Rules*. See list of Abbreviations for category labels not included in LGR.

(3)   *<H2> Para terminar, eh... porque se aproximan las noticias de las diez de
        la mañana y hablando del jurado, eh ...*
        por   lo   que   se   ve <IRE>,
        by.PREP it.PRO.N COMP   MM   see.PRS.3SG
        ya   hay   veredicto e   incluso   sentencia
        already there.be.PRS.3SG   verdict   and even   sentence
        para el hijo de Marlon Brando en Estados Unidos, ¿no?
        '<S2> To conclude, eh... because the morning ten o'clock news are com-
        ing up and talking about the jury, eh... **apparently** <IRE>, there is al-
        ready a verdict and even a sentence for the son of Marlon Brando in the
        United States, right?'   [CORLEC]

The chapter is organized as follows. Section 6.2 discusses various types of infer-
ential expressions, such as those derived from SEE-verbs, SEEM-verbs, KNOW-
verbs, THINK-verbs, SAY-verbs, as well as inferential extensions of modal verbs,
inferential uses of sentence adverbs, and tense-aspect markers. Section 6.3 de-
scribes reportative expressions derived from SAY-verbs, and reportative sentence
adverbs, as well as expressions derived from SEEM-verbs and tense-aspect mark-
ers. Some cases of multi-functionality of expressions with both inferential and
reportative evidential values are presented in Section 6.4. Section 6.5 discusses
further items and issues, such as the use of tense-aspect as inferential and
reportative evidential strategies, and the final section is devoted to some re-
marks on diachrony.

6.2 Inferential evidentiality

This section will be devoted to the analysis of the following three types of evi-
dential expressions: (a) expressions derived from SEE-verbs; (b) expressions
derived from SEEM-verbs; (c) inferential extensions of the modal verb *deber (de)*
('must'); and (d) inferential sentence adverbs.

    In Spanish, indirect-inferential evidentiality is realized by various lexical
expressions indicating author's inferential access to information or knowledge
based on perceptual evidence, conceptual evidence or cases where the infer-
ence derives from knowledge acquired through communicative sources, typi-
cally through documentary evidence, oral or written reports, though this read-
ing is most often context-dependent (Marín-Arrese 2015, 2017a). The following

examples in Spanish illustrate perception-based, conception-based and communication-based[3] inferential readings respectively.

(4)　(**IIE: Perception-based**): *"Habían muerto hacía poco tiempo,*
aparentemente <IIE>　*les*　　　　*habían*　　　　*robado,*
apparently.ADV　　　they.ACC.3PL　have.PST.IPFV.3PL　steal.PST.PTCP
pues los bolsillos, con cierre de cremallera, estaban abiertos y vacíos",
según Tawab. Los cuerpos yacían al borde de la carretera, según testigos,
que añadieron que no había nadie en los alrededores cuando pasaron.
'"They had died a short while ago, **apparently** <IIE> they had been
robbed, because their pockets, with zip fasteners, were open and empty",
according to Tawab. The bodies lay on the side of the road, according to
witnesses, who added that there was nobody in the vicinity when they
had passed by.'　　　　　　　　　　　　　　　　　[CREA]

(5)　(**IIE: Conception-based**): *Sin entrar en juicios de intenciones, un periodo*
tan perentorio parecería más propio de una situación de emergencia.
Da 　　　***la***　　　***impresión*** <IIE>　*de*　　*que*
give.PRS.3SG　the　　　impression　　　of　　COMP
la ministra de Educación se ha olvidado de que el actual sistema sigue
funcionando y de que en algunos aspectos lo hace satisfactoriamente.
'Without getting into judgments of intent, such peremptory time limits
would seem more appropriate for a situation of emergency. **It gives the**
impression <IIE> that the Minister of Education has forgotten that the
present system is still working and that in some aspects it does so satisfactorily.'　　　　　　　　　　　　　　　　　　[CESJD-SLP]

(6)　(**IIE: Communication-based**): *No he leído todavía <u>la letra pequeña de la</u>*
<u>sentencia</u>,
pero　**_parece_** <IIE>　*que*　　*queda*　　*claro*
but　　seem.PRS.3SG　COMP　stay.PRS.3SG　clear
que ni ETA tuvo nada que ver con tan lamentable masacre ni se observa en
su fondo el más mínimo rastro que permita establecer las relaciones
causa-efecto que han alimentado el amarillismo periodístico.
'I have not yet read <u>the details of the sentence</u>, but **it seems** <IIE> that it
is clear that neither did ETA have anything to do with that awful massa-

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3 The term 'report-based' used in previous publications, Marín-Arrese (2015, 2017b), has been modified to 'communication-based', to avoid possible confusion with indirect reportative evidentiality, and because it best captures the broader nature of the sources of evidence.

cre nor can we observe deep down the least trace that may allow estab-
lishing the cause-effect links that have fed yellow journalism.'

[CESJD-SOA]

Though the domain of perception appears to be the most productive in the ex-
tension of expressions to inferential values, it is interesting to note that expres-
sions with inferential values are found originating from the three experiential
domains involved in processes of access to knowledge or information: percep-
tion, cognition and communication. The following examples, from Marín-Arrese
(2016: 336) and Marín-Arrese (2017: 206), illustrate the evidential uses of predi-
cates derived from these domains, which via the *se*-passive construction (pas-
sive middle) have extended their meaning to inferential evidentiality:

(7) (IIE) **ver** ('see'): *<H3> Muchas gracias por haber sacado eh... a colación
     este libro,*
     se ve <IIE>   *que*   *usted*   *lo...*   *lo*   *ha*   *leído,*
     MM see.PRS.3SG COMP you.HON it.ACC it.ACC have.PRS.2SG read.PST.PTCP
     y, en efecto, allí, en la aventura americana eh... estaban ya marcados...
     '<S3> Thank you very much for having brought.. eh... up this book, **one
     can see** <IIE> that you have... you have read it and, indeed, there, in the
     American adventure eh... were already marked ...'   [CORLEC]

(8) (IIE) **conocer** ('know'): *<H2>... Entonces por aquí había muchas familias,*
     se conoce <IIE>   *que*   *esto*   *fue*   *una*   *zona*
     MM know.PRS.3SG   COMP   this   was   an   area
     *... hace cien años... ha cambia<(d)>o el panorama y ahora las gentes
     apoderadas...*
     '<S2>... In those days here there were many families, **it seems** <IIE> that
     this was an area ... a hundred years ago ... the place has changed and
     now the rich people ...'   [CORLEC]

(9) (IIE) **decir** ('say'): *El Gobierno presenta en el Palacio Real de Nápoles su
     prometida vuelta de tuerca, un conjunto durísimo de medidas. En un 80%,
     se dedican a restringir la entrada, la libre circulación y los derechos de los
     ciudadanos extranjeros que residen en el país.*
     Se diría <IIE>   *que*   *la*   *mayoría*   *de*   *las*   *medidas,*
     MM say.COND.3SG COMP the majority of the measures,
     *más que para garantizar la seguridad, han sido diseñadas para expulsar
     de forma inmediata a rumanos y gitanos.*
     'The Government is presenting its promised turn of the screw in the Royal
     Palace of Naples, a very harsh set of measures. In about 80% of the

cases, they are destined to restrict the entrance, the free circulation and the rights of foreign citizens living in the country. **One would say** <IIE> that the majority of the measures, rather than serving to guarantee security, have been designed to expel the Rumanians and the gypsies immediately.' [CESJD-SNP]

As Marín-Arrese (2016: 336)[4] observes,

> It is interesting to confirm, with regard to multifunctionality and the extensions of meaning of some evidential markers, how these processes take place in relation to the parameter of experiential domains of access to evidence: perception, cognition or communication (Marín-Arrese 2006, 2013). An indication of the relevance of this distinction is the existence of markers, all of them with the same indirect inferential value (*se ve, se conoce, se diría*), which are the result of processes of semantic extension and grammaticalization, of lexical predicates from each of these domains.

On the basis of evidence from a sample of 50 languages of a different genealogic affiliation, Boye (2012) observes that there are a number of expressions that are synchronically polyfunctional, or others that are moving diachronically with respect to specific subspaces or notional regions within the semantic map of epistemicity. This would seem to point to certain bidirectional connecting links between those spaces, though as Boye (2012: 157) notes, there appear to be certain restrictions since a developmental path from full support ('know that') to indirect justification has not been independently attested. However, as Marín-Arrese (2017a: 206) argues,

> an interesting example of what constitutes an extension from full support to indirect justification is found in Spanish, in the extension of the verb *conocer* ('know'), from a value of full support to that of indirect justification in the case of the indirect-inferential expression *se conoce*. This would seem to provide evidence of a possible additional connecting line between full support and indirect justification, unless we posit an intermediate stage of weakening from full to strong partial support (*conozco > se conoce*), motivated by impersonalisation and thus a corresponding decrease in subjective responsibility, prior to the extension to indirect justification.

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4 "Resulta interesante constatar, en lo tocante a la multifuncionalidad y a las extensiones de significado de algunos marcadores evidenciales, cómo estos procesos tienen lugar en relación con el parámetro de los dominios experienciales de acceso a la evidencia: perceptual, cognitivo o comunicativo (Marín-Arrese 2006, 2013). Un indicativo de la relevancia de esta distinción lo constituye la existencia de marcadores, todos ellos con el mismo valor indirecto inferencial (*se ve, se conoce, se diría*), que son fruto de procesos de extensión semántica y de gramaticalización, a partir de predicados léxicos de cada uno de estos dominios."

Example (8) above is a case in point, as is the following:

(10) *A lo mejor se dejarían un grifo abierto o algo. No no no de de de de de la terraza,*
*que **se conoce** <IIE> que no la han puesto bien*
COMP MM know.PRS.3SG COMP not it.F have.PRS.3SG put.PST.PTCP well
o no la han hecho bien y yo qué sé, y caía goteras, ...
'Maybe they'd left a tap open or something. No no no in in in in in the terrace, that **it seems** <IIE> they haven't installed it properly or they haven't done it properly and who knows, and there was a leak, ...'   [CREA]

6.2.1 Expressions derived from SEE-verbs

Within the domain of predicates of visual perception, the perceptual verb *ver* ('see') is highly polysemous, and not all the meaning extensions can be classified as evidential (cf. Whitt 2010). Evidential examples with *ver* ('see') are found with the value of direct perceptual evidence, and also those which undergo extensions to indirect inferential evidentiality.

(11) (DPE): *<H3> Y entonces **se ve** <DPE> a dos funcionarios*
and then MM see.PRS.3SG ACC two civil servants
de la Administración que le que ... que se dicen uno al otro: Eh..."¿Sabes? el jefe de sección ha tenido un hijo". Y entonces dice el otro: "Querrás decir su mujer". Y dice "no, no, él, Margarita".
'<S3> And then **you see** <DPE> two civil servants who... who.. who are saying one to the other: Eh... "you know ... the Section Head has had a baby". And then the other one says: "You must mean his wife". And s/he says "no, no, he, Margaret".'   [CORLEC]

(12) (IIE): *Ese mismo sustrato de insensibilidad hace que el PSOE incumpla descaradamente una promesa electoral sin que pase nada. Porque se comprometieron a elaborar una ley marco de protección animal, pero el Gobierno acaba de declarar que no la hará y que las competencias son de las autonomías (se han presentado 1.300.000 firmas en pro de la ley,*
*pero **se ve** <IIE> que les importa un pito).*
but MM see.PRS.3SG COMP they.ACC.PL care.PRS.3SG a whistle
'That same substratum of insensibility allows the PSOE [Socialist Party] to blatantly fail to keep an electoral promise without any consequences. Because they committed themselves to draw up a framework law on the protection of animals, but the Government has just declared that it will

not do so and that the competency belongs to the autonomous govern-
ments (1,300,000 signatures in favour of the law have been presented,
but **it seems** <IIE> that they don't give a damn).'   [CESJD-SOP]

There is also a construction, *por lo que se ve* (lit. 'from/by it which is seen', from
what can be seen), as in example (3), which may be found with a reportative
value, and the construction *por lo visto* (lit. 'from it seen', apparently), which
also favours a reportative value (see Section 6.3.3). For detailed studies of con-
structions with *ver* ('see') in Spanish, see Kotwica (2017) and Domínguez
Romero and Martín de la Rosa (2017).

6.2.2 Expressions derived from SEEM-verbs: *parece*

The most common SEEM-verb in Spanish to express inferential evidentiality is
the verb *parecer* ('seem'). The verb *parecer* is used as an evidential in its petri-
fied PRS.3SG form (*parece*), as a pseudo-impersonal expression, basically found
with an inferential meaning, though it seems to have developed a reportative
value as attested by some instances.

According to De Haan (2007) and Gisborne and Holmes (2007), a series of
constructional variants of English *seem* with evidential readings are commonly
distinguished in the literature (see Marín-Arrese, Carretero and Usonienė, this
volume). Similar construction types have been found for Spanish *parecer*,
namely:
(i)   Raising construction, *parece* + INF;
(ii)   Unraised construction, as a complement-taking predicate (CTP) with fi-
        nite complement clauses introduced by *que*: *parece* + *que* (that.COMP);
(iii)   Minor 'comparison' construction: *parece* + *como si* (as if.COMP) + finite
        complement clause;
(iv)   Parenthetical *parece*; and
(v)   Constructional blend, *parece +ser* (be.INF) + *que* (that.COMP).

As Marín-Arrese (2015: 220) observes, "Spanish '*parece*' shows an interesting
parallelism with English *seem* in its development of meaning, from the indirect-
inferential (perceptual- or conceptual-based), and indirect-inferential (report-
based), to the indirect-reportative meaning". The following examples illustrate
type (i) and (ii) constructional variants with perception-based, conception-
based or communication-based inferential meanings, as well as the reportative
evidential value, the latter typically in a reportative context.

(13) **IIE** (Perception-based)

*<H1> Elgorriaga sí que **parece** <IIE> haber recibido*
Elgorriaga yes COMP seem.PRS.3SG have.INF receive.PST.PTCP
un poquito de tono, sin embargo. <H2> Sí; bueno, yo creo que está
jugando mejor, ya... tiene el marcador claro...
'<S1> Elgorriaga does **seem** <IIE> to have received a little bit of tone,
however. <S2> Yes, well, I think he is playing better, he finally ... he has
the scoreboard clear...' [CORLEC]

(14) **IIE** (Conception-based)

En unos tiempos como los actuales en los que, al menos en la superficie de
los acontecimientos,
***parece** <IIE> idolatrar-se el materialismo,*
seem.PRS.3SG idolize.INF-MM the materialism
siempre defendió la vida del espíritu,...
'In times like the present in which, at least on the surface of events, ma-
terialism **seems** <IIE> to be idolized, he always defended the life of the
spirit, ...') [CESJD-SLA]

(15) **IIE** (Communication-based): <u>*A juzgar por sus declaraciones,*</u>
***parece** <IIE> que*
seem.PRS.3SG COMP
Obama, prudente y comprometido con un sentido ético de la política, está
dispuesto a gobernar desde el estricto respeto a la Constitución, las leyes y
los derechos ciudadanos, ...
'<u>Judging by his declarations</u>, it **seems** <IIE> that Obama, prudent and
committed to an ethical sense of justice, is ready to govern with a strict
respect for the Constitution, the law and civil rights, ...' [CESJD-SLP]

(16) **IRE** (Reportative): *Pero, al tiempo, se anuncia, y en el periódico que dirige*
Antonio Franco esta mañana lo leemos,
*que **parece** <IRE> que Álvarez Cascos prepara*
COMP seem.PRS.3SG COMP Álvarez Cascos prepare.PRS.3SG
una fuerte ofensiva en la línea de endurecer la acción contra la oposición.
'But, at the same time, it is announced, and in the newspaper that Anto-
nio Franco directs we can read it this morning, that **it seems** <IRE> **that**
Álvarez Cascos is preparing a strong offensive in the line of strengthen-
ing the action against the opposition.' [CREA-Oral]

With examples of the type (iii) constructional variant, we also find perception-
based, conception-based or communication-based inferential meanings:

(17) *La seguridad es algo que no tiene precio, por eso "Volvo" hace los coches*
más seguros que nadie, porque valora más que nadie la seguridad de quien
los conduce. Vean el lenguaje orientado al consumidor, pensando en el
consumidor,
parece <IIE> **como si** no hiciera   coche
seem.PRS.3SG   COMP   not make.PRS.SBVJ.3SG car
más que para que no nos matemos, ¿no?
'Security is something that has no price, for that reason "Volvo" makes
their cars safer than anybody else, because it values more than anybody
the security of whoever drives them. See the consumer-oriented lan-
guage, thinking about consumers, **it seems** <IIE> **as if** they make cars
only with the aim that we do not kill ourselves, right?'.   [CORLEC]

An example of type (iv) parenthetical expressions, with reportative meaning, is
the following:

(18) *<H2> Pues no. A mi modo de entender no estuvo ni siquiera bien, estuvo*
bastante mal aunque
según   parece <IRE> *me   habéis   comentado,*
according to seem.PRS.3SG me-DAT have.PRS.2PL comment.PST.PTCP
las crónicas le ponen bien. <H1> Sí. Le ponen buena actuación.
'<S2> Well no. As I understand it, he wasn't even good, he was pretty bad
even though **apparently** <IRE> you've told me, the reports on him are
good. <H1> Yes. They say good performance.'   [CORLEC]

Type (v), the constructional blend, *parecer + ser* (be-INF) + COMP is characteristi-
cally found with a reportative reading, which will be discussed in Section 6.3.2.
Marginally, we may find cases of this construction with an inferential reading.

(19) *<H1> Y*   **parece   ser** <IIE> **que** *va   a*
      and   seem.PRS.3SG be.INF   COMP go.PRS.3SG to
salir   Hilario.
come out.INF   Hilario
<H2> Va a salir Hilario, efectivamente. <H1> Hilario. <H2> Moviendo la bola ...
'<S1> And **it seems** <IIE> that Hilario is going to come out. ... <S2> Hilario
is going to come out, exactly. <S1> Hilario ... <S2> Moving the ball ...'
                                                        [CORLEC]

Lampert (2011: 13–14) has claimed that "[i]n contradistinction to what the he-
gemonic constructional accounts claim", none of the constructions with *seem* in
English "will yield any significant bias toward one specific evidential reading".
In a contrastive corpus study on the common constructional variants with *seem*

and *appear* in English and *parecer* in Spanish, Marín-Arrese (2017a: 216) found that for English there was no significant correlation between constructions and evidential values, although there did appear to be "a certain preference for the reportative value in the use of the 'appear that-construction'". For Spanish *parecer*, however, contra Lampert (2011), there is a clear preference of type (i) constructional variant for inferential values, and likewise for type (ii) variant, but with quite a high number of cases with a reportative value. The minor 'comparison' construction, (iii) *parece + como si* (as if.COMP), typically shows inferential values. Reportative meaning is clearly associated with type (iv) and (v) constructional variants: the parentheticals, (iv) *según parece* ('according to (what) it seems') and *parece ser* ('it seems + be.INF'), are found with a reportative value; and the constructional blend, (v) *parece +ser* (be-INF) + *que* (that-COMP), is practically restricted to reportative values.

Also significantly, the variation shows that the use of these constructional variants is also sensitive to discourse and genre distinctions (Marín-Arrese 2017: 217): (i) The raising construction, *parece +* INF, is mostly restricted to inferential values in both journalistic and unscripted oral discourse; (ii) The unraised construction, as a complement-taking predicate (CTP) with a that-complementizer, *parece + que* (that.COMP), also favors inferential values, but shows a distinct tendency to appear with a reportative value in oral discourse, which is characteristically the preferred site for language change.

The variant of *parecer* with an explicit experiencer, *me parece* ('it seems to me') is a subjectified form which is more akin to verbs of mental state such as *I think* or *I believe,* a cognitive attitude or belief-type of expression (Marín-Arrese 2017a). Sanders and Spooren (1996: 246) note that I-embeddings "explicitly encode the speaker/writer's personal limitation of the validity of information", thus the communicated information is maximally subjective. Nuyts (2005) uses the term 'subjectifier' and considers that they do not belong within the functional category of evidentiality.

6.2.3 Expressions derived from THINK-verbs and miscellaneous quasi-modal verbs

6.2.3.1 Epistemic and/or evidential meaning: *creo*, *supongo*, *calculo*

Parentheticals with cognitive attitude verbs, such as *creo* ('I think'), *supongo +* COMP ('I suppose'), *calculo +* COMP ('I reckon'), signal an explicit subjective epistemic stance, but they may also, depending on the context, be interpreted as involving generic inferences, and would thus qualify as evidential expressions (cf. Marín-Arrese 2021).

(20) ... *yo creo que aunque se comunicó veinte días antes,*
      calculo <IIE> *que   un   mes   antes,*
      reckon.PRS.1SG COMP a   month before
      ya evidentemente estaban hechas las gestiones y no me extrañaría que se
      hubieran empezado a acelerar en el gran premio de España de Jerez.
      'I think that although it was communicated twenty days before, **I reckon**
      <IIE> that one month before, the arrangements were obviously already
      made and I wouldn't wonder if they had been accelerated in the Spanish
      great prize in Jerez.'   [CORLEC]

For a detailed list and description of these type of 'epistemic/evidential com-
plement-taking predicates' (E/E CTPs), see Mulder (2017). An in-depth descrip-
tion of the cognitive verb *creer* ('believe') as a prolific expression of evidentiality
and epistemic modality in contemporary Peninsular Spanish is found in Mulder
(2018).

6.2.3.2 Miscellaneous quasi-modal verbs: *amenaza*, *promete*

The quasi-modal verbs *amenazar* + INF ('threaten') and *prometer* + INF ('prom-
ise') are marginally found with a meaning of "likelihood attached to the eventu-
al realization of the event expressed by the infinitive" (Cornillie 2004: 2), which
may be interpreted as generic[5] inferences or as conjectures (cf. Squartini 2008),
in examples such as:

(21) *La   economía, que   **promete** <IIE>   ser*
      the   economy,   COMP   promise.PRES.3SG   be.INF
      el principal campo de batalla de las elecciones, era el terreno en el que
      mejor se han manejado los laboristas durante años.
      'The economy, which **promises** <IIE> to be the main battleground in the
      elections, was the ground which the Labour party has handled best for
      years.'   [CESJD-SNP]

The verbs *amenazar* tends to be associated with the realization of negatively
oriented events expressed in the infinitival complement, whereas *prometer*

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5 Squartini (2008: 925) identifies three types of inferential processes: *circumstantial* infer-
ences, where the speaker's reasoning process is "heavily supplemented by external sensory
evidence", *generic* inferences, which involve "a balanced proportion of the speaker's own
reasoning and external information deriving from general world knowledge", and *conjectures*,
where "all external evidence is missing, the speaker being solely responsible for the reasoning
process".

allows for inferences involving both positive and negative events. The infinitival complement generally involves a stative copular verb in the case of *prometer*, whereas a change of state verb is often found with *amenazar*. The inferential readings of these verbs can also be found with English *promise* and *threaten*, and in French (see Dendale, this volume) or German (see Mortelmans and Stathi, this volume) (cf. Diewald and Smirnova 2010).

6.2.4 Inferential use of epistemic modal verbs: *deber (de)* + INF

The modal verb *deber* 'have to/must', in the construction *deber (de)* + INF, is primarily found as a deontic modal of necessity, and to a lesser extent with an epistemic modal meaning, where the verb form is often followed by the preposition *de* before the infinitive. Boye (2012: 24) observes that "both notions (epistemic necessity and inferential justification) need to be invoked" in order to account for the evidential meaning and use of epistemic modal *must*, and notes that this is also the case of Spanish *deber (de)*. One of the relevant features of evidentiality is that of the explicit specification of the evidential justification for the proposition (see *because*-clauses in examples 22 and 23), that is, whether there is an overt reference to the evidence for the claim in the immediately preceding or following cotext, or whether the claim expressed in the proposition is not based on any overt evidential justification (Hoye 2009; Marín-Arrese and Carretero 2014; see also Marín-Arrese, Carretero and Usonienė, this volume). In a similar way to English *must*, we find frequent cases of both perception-based and conception-based evidential uses, where the evidential justification is explicitly specified in the cotext, as in the following examples (Marín-Arrese 2018: 88):

(22)   *<H4> ¿Aquí venden gorros o qué?*
         *<H3> No. **Deben** <IIE> **ser** juguetes.*
                 no   must.PRS.3PL   be.INF   toys
         Yo... <u>porque</u> hay un caballito de esos que se mueven... Soldaditos de plomo... <H4> Mira hay... ahí sí que hay un caballito que...
         '<S4> Do they sell hats here or what? <S3> No. It **must** <IIE> be toys. I ... <u>because</u> there's one of those little horses that move ... Little lead soldiers ...<S4> Look there's .. there there's definitely a little horse that ...'
                                                                                              [CORLEC]

(23)   *<H1> Son las 2 de la tarde y casi 20... minutos. El buen tiempo incita a los vecinos, como les hemos dicho al comienzo, al paseo. Pero eso, a tenor de lo que se ve ahora en el centro,*

> ***debe*** <IIE>   ***ser***   *en*   *otra*   *provincia,*
> must.PRS.3SG   be.INF   in   other   province
> *porque en Madrid proliferan los atascos a esta hora.*
> 'It is two in the afternoon and almost twenty minutes past. The good
> weather encourages the neighbors to go out for a walk, as we told you at
> the beginning. But that, from what we can see now in the centre, **must**
> <IIE> be in another province, <u>because</u> in Madrid there are widespread
> traffic jams at this time of the day.'   [CORLEC]

Cases of non-overt justification of evidence or no justification are also found.
These are mostly instances involving generic inferential meaning, i.e. speak-
ers'/writers' reasoning on the basis of information derived from general world
knowledge, or conjectural inferences, based solely on the speaker'/writer' rea-
soning process (cf. Squartini 2008), as in:

(24)   *... después de este paréntesis, la representación de Cataluña irá a dar en*
        quien de verdad la merece que es Carod Rovira, aunque ya no será él, sino
        alguno de sus amigos y colegas
        que   ***debe*** <IIE>   ***de***   ***estar*** *segándo-le*   *la*   *hierba*
        who   must.PRS.3SG   of.PREP   be.INF   mow.PRS.PTCP-he.DAT   the.F   grass
        bajo los pies.
        '... and after this parenthesis, the representation of Catalonia will end up
        with the person who really deserves it who is Carod Rovira, although it
        won't be him, but rather one of his friends and colleagues who **must**
        <IIE> be mowing the grass beneath his feet ...'   [CESJD-SOP]

There appears to be certain variation in judgments of grammaticality in the
literature on Romance languages on the use of the modal verb or the future
tense form, that is, acceptability seems to differ across languages in the case of
contexts lacking explicit reference to external sensory-based evidence (cf.
Dendale 1994; Tasmowski 2001; Squartini 2008). The modal verb *deber (de)* is
found with both circumstantial and generic inferences (cf. Anderson 1986;
Squartini 2008), whereas the future tense form, the epistemic or 'putative' fu-
ture (Chilton 2013), is mostly restricted to generic inferences. In Spanish the
future tense form, which is characteristic of contexts triggering weaker types of
inferences, is only marginally acceptable in (25a), since the context is that of
perception-based inferential meaning (circumstantial inferences). In (25b),
however, the epistemic or 'putative' future is fully acceptable since the "exter-
nal sensory trigger ('door-bell rings')" motivates "the generic inferential pro-
cess, which is based on previous personal experience of the speaker/writer or

general world knowledge ('time at which the postman usually comes')." (Marín-Arrese 2018: 86) (see also Saussure 2013).

(25) a.   [Pointing to two people] *Parecen gemelos idénticos.*
      Deben   *ser*   /??**Serán**   *hermano y*   *hermana.*
      must.PRS.3PL   be.INF /be.FUT.3PL   brother   and   sister
      'They look like identical twins. They must be/?? They will be brother
      and sister.'

      b.   [It is ten o'clock. The doorbell rings]
      Debe   *ser*   /**Será**   *el*   *cartero.*
      must.PRS.3SG   be.INF /be.FUT.3SG   the.M   postman
      'That must be/That will be the postman.'   [Marín-Arrese 2018: 87]

6.2.5 Inferential sentence adverbs

As was stated above, Spanish resembles many of the European languages studied in this volume in the important role assigned to adverbs in the expression of evidentiality, as pointed out by Cornillie (2010), Haßler (2008), Hennemann (2012), Lavid et al. (2017) and Carretero et al. (2017). The last reference, from which some of the quantitative data are extracted, provides a contrastive analysis of 100 examples of naturally occurring data of six English adverbs and its Spanish nearest translation equivalents, 50 from spoken discourse and 50 from newspaper discourse. These two registers differ in mode, degree of planning and spontaneity, and were chosen in order to shed light on how these differences affect the use of the adverbs. The corpus used was the Peninsular Spanish part of the *Corpus de Referencia del Español Actual* (CREA), and the *Corpus del Español del Siglo XXI* (CORPES XXI).

The adverbs were studied according to two dimensions: values of evidentiality and clausal position. According to the evidential values, examples were divided into DPE, IIE and IRE. Non-evidential occurrences were also registered. With regard to position, the Spanish adverbs share the positional mobility of their counterparts in English and other European languages, reported in many contributions to this volume (see also Simon-Vandenbergen and Aijmer 2007; Ruskan 2015; Carretero 2019). For the analysis of position, the non-evidential occurrences were discarded, and the evidential occurrences were classified as follows (see Table 1):

–   Initial (IN): at the beginning of the clause, in pre-topic constituent position, after conjunctions or other textual elements such as discourse markers;

- Medial (MD): typically preceding the predicate or in any clausal position other than initial or final;
- Final (FN): at the end of a clause, as the last clause constituent, or
- Parenthetical (PTH): with punctuation signs on the left and on the right.

According to Nuyts (2001), who focuses on epistemic modal adverbs but also includes evidential adverbs such as *presumably* or *supposedly*, positional mobility is due to the interaction of two functional forces: an iconic force, which highlights the conceptual scope of the adverbs over a proposition, and an information-structural force, which agrees with the tendency of epistemic (and evidential) expressions to be non-focal (cf. Nuyts and Vonk 1999). Initial position satisfies the force of iconicity, since the evidential operator precedes the clause under its scope. By contrast, medial position is a non-prominent position that agrees with the information-structural force. Final position would be rare in any language, since it is not iconic, that is, it does not reflect the status of the adverb as a meta-operator over the proposition, nor does it agree with the tendency of the adverbs to be non-focal. As for the parenthetical position, Nuyts (2001) considers that it favors the information-structural force; we believe, however, that this position is iconic in the sense that intonational or orthographic separation from the rest of the clause represents the status of the adverb as a meta-operator over the proposition expressed by the clause.

The quantitative results of the analysis of position of the evidential occurrences of the adverbs are specified in Table 1. The adverb *claramente* 'clearly' is predominantly used in medial position in the two registers, and so is *obviamente* 'obviously' in the newspaper register; however, *evidentemente* 'evidently' in the two registers and *obviamente* in the spoken register often occur in initial and parenthetical position, both of which enhance the status of the adverb as a meta-operator over the proposition.

Table 1: Position of Evidential sentence adverbs and adverbial (raw numbers and percentages).

SPANISH	CREA-CORPES Oral-Spain					CREA-CORPES Newspapers-Spain				
	PTH	IN	MD	FN	Total	PTH	IN	MD	FN	Total
al parecer	26	13	11	0	50	35	5	10	0	50
	52%	26%	22%		100%	70%	10%	20%		100%
aparentemente	4	7	11	1	23	15	11	16	1	43
	17%	30%	48%	4%	100%	35%	26%	37%	2%	100%

SPANISH	CREA-CORPES Oral-Spain					CREA-CORPES Newspapers-Spain				
	PTH	IN	MD	FN	Total	PTH	IN	MD	FN	Total
claramente	4	1	14	0	19	1	4	19	0	24
	21%	5%	74%		100%	4%	17%	79%		100%
evidentemente	8	8	6	2	24	21	2	8	0	31
	33%	33%	25	8%	100%	68%	6%	26%		100%
obviamente	9	7	1	4	21	9	3	15	0	27
	43%	33	5%	19%	100%	33%	11%	56%		100%
supuestamente	1	3	8	0	12	6	5	39	0	50
	8%	25%	67%		100%	12%	10%	78%		100%
Total	52	39	51	7	149	87	30	107	1	225

Parenthetical *evidentemente* in newspaper discourse may be used as a conventionalized device for highlighting the commitment to the information communicated in the clause. In many cases, the utterance of the adverb is attributed to another person in quoted speech or in interviews, as in (26). The analysts are left without knowing whether the adverb was originally uttered by the quoted source or inserted by the journalist as a resource for enhancing the interviewee's assertiveness.

(26)　*De todas formas, aunque podamos poner objeciones a las afirmaciones precognitivas de Burroughs –"**evidentemente** <IIE>, los gatos de colores extraños con que soñé el sábado por la noche eran vaticinios de los animales que vi anoche en el libro"-, no cabe dudar de la seriedad del autor.*
'In any case, although we may object to Burroughs's pre-cognitive statements – "**evidently**, the cat of strange colours of which I dreamt on Saturday night were presages of the animals that I saw last night in the book" -, the author's seriousness cannot be doubted.'

[CREA-CORPES: News]

The locution *al parecer* 'apparently' shows the highest frequency of parenthetical occurrences, and is also quite frequent initially in spoken discourse; this distribution indicates that its use most often highlights the iconicity factor (i.e. the status of the evidential expression as a meta-operator over the clause). By contrast, *supuestamente* 'supposedly' tends to favor the less prominent medial position, thus favoring the information-structural tendency of evidential expressions to be non-focal. *Aparentemente* 'apparently' displays a more balanced distribution of the parenthetical, initial and medial position than the other two adverbs. Final position is extremely uncommon, which is consistent with its

inadequacy to fulfill either the iconic force or the information-structural force. It must also be noted that the parenthetical occurrences of the three expressions were more common in the newspaper subcorpus, where they conventionally highlight lack of commitment on the part of the authorial voice.

The Spanish evidential adverbs under study proved to have a strong correlation between evidential values and validity of information: adverbs evoking high validity (*claramente*, *evidentemente* and *obviamente*) were exclusively used to express IIE (no cases were found of IRE), while expressions indicating lower validity (adverb *supuestamente*, and conjunctive locution *al parecer*) were mainly IRE devices, while the adverb *aparentemente* shows variation depending on the discourse domain of use, oral vs. written discourse. Table 2 shows results of evidential values (IIE, IRE) and non-evidential uses (NE) of these expressions (Carretero et al. 2017: 53).

Table 2: Evidential and non-evidential uses of adverbs and adverbials in spoken and written discourse (raw numbers and percentages).

SPANISH	CREA-CORPES Oral-Spain				CREA-CORPES Newspapers-Spain			
	IIE	IRE	NE	Total	IIE	IRE	NE	Total
al parecer	2	48	0	50	1	49	0	50
	4%	96%		100%	2%	98%		100%
aparentemente	17	6	8	31	12	31	7	50
	54.8%	19.3%	25.8%	100%	24%	62%	14%	100%
claramente	19	0	31	50	24	0	26	50
	38%		62%	100%	48%		52%	100%
evidentemente	24	0	26	50	31	0	19	50
	48%		52%	100%	62%		38%	100%
obviamente	21	0	20	41	27	0	23	50
	51.2%		48.7%	100%	52%		46%	100%
supuestamente	1	11	4	16	0	50	0	50
	6.3%	68.7%	25%	100%		100%		100%
Total	84	65	89	238	95	130	75	300

According to these quantitative data, *al parecer* and *supuestamente* are strongly associated with IRE; the IIE use is very scarce. By contrast, *aparentemente* has a sizeable number of occurrences of both types of evidentiality: IIE predominates in the spoken subcorpus, while in the newspaper subcorpus the cases of IRE more than double those of IIE. All the newspaper occurrences of *supuestamente*

belong to IRE; this classification, together with its significantly higher frequency in the newspaper subcorpus than in the spoken subcorpus, are due to its conventionalized use of this adverb in newspaper discourse to express lack of full commitment as a way of protection against legal problems, especially when dealing with crimes and legal issues, since journalists can easily be made legally responsible for what they write. The conventionalization of this use is also registered in Hennemann (2012: 155–157).

The non-evidential occurrences display higher percentages in the spoken subcorpus for the three high validity adverbs. In this subcorpus, *claramente* often occurs as a manner adverb with verbs of communication such as *decir* 'say', *especificar* 'specify', *expresar* 'express' or *definir* 'define', while *evidentemente* 'evidently' and *obviamente* 'obviously' were frequently found in pragmaticized and interactional uses.

Even though the description presented here is restricted to the adverbs mentioned above, mention must be made of other similar adverbs in Spanish, such as *manifiestamente* 'manifestly', *perceptiblemente* 'perceptibly' or *visiblemente* 'visibly', all of which can be found with an evidential meaning or with a meaning of manner (Haßler 2008; Cuartero Sánchez 2011; Carretero 2019). We also find adverbial expressions, such as *con toda certeza* 'in all certainty', which may be used with a generic inferential value.

Within the inferential occurrences of the adverbs associated with high validity of the information, examples were found of perception-based, conception-based or communication-based modes of access to the evidence: no restrictions were found in this respect, although the cases of communication-based inference were the least frequent. The subtypes are illustrated by the following examples:

(27)   (IIE: Perception-based) *Una ciudad sit... situada sitiada, perdón, un montón de soldados dando vueltas en torno ahí, y* **obviamente** *<IIE>, la prostitución trabajando en torno a la ciudad.*
'A city sit... situated besieged, sorry, a heap of soldiers kicking around there, and **obviously**, prostitution working around the city.'
[CREA-CORPES: Oral]

(28)   (IIE: Conception-based) *... las empresas han optado* **claramente** *<IIE> por la vía de la precariedad laboral como forma dominante en la contracción de la inserción laboral tal como ha señalado el mismo autor.*
'Companies have **clearly** opted for the path of job insecurity as the dominant way in contraction of labour insertion just as the same author has noted.'
[CREA-CORPES: News]

(29) (IIE: Communication-based) *Un anuncio que no busca tanto una reacción inmediata en las ventas como dotar a Coca-Cola de una serie de valores. "Ha entrado a saco con ideas como solidaridad y pluralidad. Es* **claramente** *<IIE> emocional", opina Jorge Torres Barroso, de 23 años, ...*
'An advertisement that does not seek so much an intermediate reaction in sales but rather endowing Coca-Cola with a set of values. "It has entered abruptly with ideas such as solidarity and plurality. It is **clearly** emotional", says Jorge Torres Barroso, 23 years old, ...'

[CREA-CORPES: News]

As for non-evidential occurrences, *claramente* is also found with a meaning of manner; in these cases, the adverb is often combined with verbs or other expressions of perception, cognition or communication (Carretero and Zamorano-Mansilla 2013: 349–350):

(30) *Entonces, en esta cinta lo que se dice muy* **claramente** *<NE> es que va destinada en principio al presidente del Partido Popular nacional.*
'Then, in this tape what is said very **clearly** is that it is in principle addressed to the national president of the Popular Party.'

[CREA-CORPES: Oral]

For the other two adverbs, no occurrences with a meaning of manner were retrieved. All the non-evidential cases are pragmaticized addressee-oriented uses in which the validity of information is assessed in terms of agreement with expectations or common sense rather than evidence, *of course* and *naturally* being adequate paraphrases.

(31) *Empezaba yo haciendo mensajes publicitarios y era una campaña de Schweppes. Es un pequeño spot, pero es verdad, ¿no?, y entonces, bueno, yo era nuevo, era más joven,* **obviamente** *<NE>, ¿no?, entonces hice el spot y a mí no me gustaba, ...*
'I was then starting to do advertising messages and it was a campaign for Schweppes. It is a small spot, but it is true, isn't it? and then, well, I was new, I was younger, **obviously**, wasn't I?, then I made the spot and I did not like it, ...'   [CREA-CORPES: Oral]

The presentation of the information as common ground may lead to the interactional function of bonding, which consists in "the creation of shared attitudes, a common world" (Simon-Vandenbergen and Aijmer 2007: 154). This use is exemplified in the following example:

(32) *Sabemos que hay dificultades aquí también. Los procesos de... de inmigración, en fin, han creado dificultades. Pero estamos ante una*

*evidencia muy grande que es todo el proceso posterior a la caída del Muro de Berlín. Y **evidentemente** <NE> que en estos años, Europa y la gran mayoría de esos países, han tenido una visión muy especial hacia Europa del Este. Nosotros lo entendemos.*

'We know there are difficulties here as well. The processes of … of immigration, well, have created difficulties. But we are facing a very great evidence, which is all the process after the fall of the Berlin Wall. And **evidently** that in these years, Europe and the majority of those countries, have had a very special vision towards Eastern Europe. We understand it.'
[CREA-CORPES: Oral]

Evidential expressions evoking medium or low validity of the information indicate a lower degree of speaker/writer commitment. *Al parecer* allows the authorial voice to adopt a neutral position with regard to the communicated information, while *aparentemente* and *supuestamente* seem to indicate more distance on the part of the authorial voice towards the communicated information, thus regarding its validity. The nearest respective translation equivalents in English are *apparently*, *seemingly* and *supposedly*.[6] With regard to the evidential values, we find inferential uses of *aparentemente*, and reportative uses, which are mostly found with *al parecer* and *supuestamente*.

(33) *Nosotros podemos podemos reírnos de la vida, podemos reírnos de muchas situaciones que, **aparentemente** <IIE>, nos oprimen, pero nosotros, cuando trabajamos periodísticamente, lo hacemos con rigor, con exactitud.*

'We can laugh at life, we can laugh at many situations which, **apparently**, oppress us, but we, when we work journalistically, we do it with rigor, with accuracy.'   [CREA-CORPES: Oral]

(34) *No ha sido una buena semana para el fiscal general del Estado que, **al parecer** <IRE>, ha ido de patinaje en patinaje.*

'It has not been a good week for the State Solicitor General who, **apparently**, has gone from blunder to blunder.'   [CREA-CORPES: Oral]

(35) *Todas las acusaciones coinciden en que el móvil del doble crimen fue económico, ya que Rangel había dejado su trabajo en una empresa textil y*

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6 *Aparentemente* may be paired with *apparently*, since both share the same Latin root. However, the correlations *aparentemente* ~ *seemingly* and *al parecer* ~ *apparently* are more common in present-day English and Spanish in terms of reliability and distribution of domains of evidence (cf. Carretero et al. 2017: 47–51).

supuestamente <IRE> *estaba acuciado por varias deudas con entidades bancarias y de crédito.*
'All the accusations coincide in that the motive of the double crime was financial, since Rangel had given up his job in a textile company and **supposedly** he was beset by several debts with banks and credit entities.'

[CREA-CORPES: News]

The use of these inferential expressions often has a humorous or ironic flavor in contexts where the inference is not significant for the flow of discourse or not especially meritorious in terms of mental effort, as in (36), which is extracted from an account of the plot of an Indiana Jones film.

(36) *Lo que da vueltas no es una mosca, lo que da vueltas es un avión, que es en el que* **supuestamente** <IIE> *se fuga Indiana Jones para largarse de todos los crueles enemigos que tiene. Bueno, Magnífica tontería.*
'What whirls around is not a fly, what whirls around is a plane, which is where **supposedly** Indiana Jones escapes so as to get away from all the cruel enemies that he has. Well, magnificent nonsense.'

[CREA-CORPES: Oral]

The expressions *al parecer* and *a lo que parece* were found to be evidential in most of the occurrences found, typically with a reportative value. By contrast, *aparentemente* and *supuestamente* also displayed non-evidential occurrences: *aparentemente* indicates agreement with external appearance but not with reality, as in (37), *supuestamente* expresses a clash of reality with previously entertained beliefs, often with a connotation of disappointment, as in (38):

(37) *Vosotros también observáis que aparte de la traslación de la Tierra, por la noche hay un movimiento de rotación del cielo. El cielo* **aparentemente** <NE> *se mueve... no se mueve nada; se mueve la Tierra en rotación.*
'You also observe that apart from the translational movement of the Earth, at night there is a rotation movement of the sky. The sky **seemingly** moves... actually nothing moves; the Earth moves in rotation.'

[CREA-CORPES: Oral]

(38) *Llegamos al sitio donde* **supuestamente** <NE> *ya nos íbamos a poder parar a dormir y resulta que no había sitio para nosotros.*
'We arrived at the place where we **supposedly** would stop to sleep, and it turned out that there was no room for us.'   [CREA-CORPES: Oral]

6.3 Reportative evidentiality

Reportative evidentiality pertains to speakers/writers' access to the evidence mediated by an external source, where the original speaker's perspective is defocused or lost, and there is no referential mention of the external source (cf. Chojnicka 2012; Marín-Arrese 2013). Aikhenvald's (2004: 367) distinction between the category termed Quotative, which involves "reported information with an overt reference to the quoted information", or the category Hearsay, for "reported information with no reference to whom it was reported by", may have given rise to ambiguity or indeterminacy in some cases. The term 'quotative' is most currently found in the literature on discourse analysis and speech representation, and is also used in disciplines as diverse as sociolinguistics, bilingualism, and so on (cf. Buchstaller and Van Alphen 2012). As Chojnicka (2012: 179) argues, the distinction between reportative evidentiality and speech representation may be viewed as a cline or continuum in terms of the dimensions of 'speaker perspective' and 'source realization':

> The original speaker's perspective is present to the largest extent in direct speech; in indirect speech, the current speaker attributes knowledge to another speaker from his/her own perspective. As the cline moves towards reportive evidentiality, the original speaker's perspective becomes gradually weaker and is finally lost. When it comes to source, in reported speech it is stated and linked to the reported information, whereas in evidentiality the source is not given.

Reportative expressions in Spanish typically involve SAY-verbs, *se dice* 'it is said', *dicen* 'they say', *según dicen* 'according to what they say', *según se dice* 'according to what is said', and HEAR-verbs such as *he oído + que* 'I've heard that', *por lo que he oído* 'from what I have heard'. Frequent reportative expressions are also found with SEEM-verb constructions and adverbs, as in *parece ser (que)* 'it seems to be (that)', *según parece* 'according to (what) it seems', *al parecer* 'apparently', *aparentemente* 'apparently'. Expressions with a reportative value are also found with BELIEF-verbs and adverbs, such as *según se sospecha* 'according to what is suspected', *se cree* 'it is believed', and *supuestamente* 'supposedly', as well as with SEE-verb constructions as in *por lo visto* 'from that seen', *por lo que se ve* 'from what can be seen'.

6.3.1 Expressions derived from SAY-verbs

In evidential expressions derived from SAY-verbs, the primary authorial voice evokes an external voice as source. This backgrounded external voice may be

evoked by 'genericization' in impersonal constructions such as *dicen* 'they say', with a non-specific source, or implicit through passivization, as in *se dice* 'it is said' (cf., Marín-Arrese 2017b).

(39) *Yo últimamente oigo hablar mucho de la metadona. Parece ser que es un sintético opiáceo o parecido, o algo así.*

Y	***se***	***dice*** *<IRE>*	*que,*	*bueno,*	*a través*	*del*	*tratamiento*
and	MM	say.PRS.3SG	COMP	well	through	of.the	treatment

con metadona lo que se está produciendo, en definitiva, es una especie de mercado negro, porque ustedes tienen un fácil acceso a ... a una sobredosis...

'Lately I have heard a lot of talk about methadone. It seems that it is a synthetic opiate or similar, or something like that. And **they say** that, well, through the treatment with methadone what is taking place, in fact, is a type of black market, because you all have easy access to an overdose ...' [CREA]

In using these forms of backgrounding of the original source, speakers may either adopt a neutral position in terms of alignment with the original voices, non-alignment, or else position themselves in disalignment with them (cf., DuBois 2007). As Aikhenvald (2014: 12), observes, "[i]n English, 'they say' may imply that the speaker does not really believe what is being reported".

(40) *No sé si debemos felicitarnos por eso. En cualquier caso,*

Perejil	*no*	*es*		*de*	*nadie,*	***según***	***dicen***,
Perejil	not	be.PRS.3SG	of	nobody	according to	say.PRS.3PL

o su propiedad es sólo conjetural, ...

'I don't know whether we should congratulate ourselves about this. In any case, Perejil does not belong to anybody, **so they say**, or its property is only conjectural, ...' [CESJD-SOA]

In Pan-American varieties of Spanish we also find a highly conventionalized expression of reportative evidentiality, the particle *diz(que)*, ('they say that'), which originates from the fusion of *diz(e)* (say.PRS.3PL) with the complementizer *que* (Marín-Arrese 2020). This particle began the process of lexicalization in the 13th century in Old Peninsular Spanish, and became a petrified fused unit in the late 15th and early 16th centuries (see Section 6.6.5). The form *dizque* is not found nowadays in Peninsular Spanish, except marginally in Galicia, due to the influence of the use of Galician *disque* (cf., López-Couso and Méndez-Naya 2015).

The form *dizque*, commonly used as a reportative in most Pan-American varieties of Spanish, has extended its use from a verbal matrix predicate introduc-

ing reported speech, to a reportative evidential ('hearsay') expression, where "the notion of doubt is available as a pragmatic inference" (Travis 2006: 1294). In Colombian Spanish *dizque* maintains its CTP function and is commonly found with secondary discourse status, as in the following example from Travis (2006: 1284):

(41) A: *Por ejemplo, el a– aquí el alcalde, Todo lo que ha hecho, Y .. y ahorita,*
dizque *ya lo están investigando.*
'For example, the mayor here, all that he's done, and now, *dizque* he's under investigation.'

Dizque is found mostly used as a parenthetical, as in Bolivian Spanish in (42), with highly conventionalized or with primary evidential meaning.

(42) *La probable instalación de una malla a lo largo de la "avenida Blanco Galindo",*
dizque, *para evitar accidentes*
say.PRS.3PL.COMP in order to avoid.INF accidents
que se producen por indisciplina de los conductores o los transeúntes, no es sino una astuta idea para hacerse de algunos dinerillos, ...
'The probable installation of a wire net along the avenue Blanco Galindo, **they say**, to avoid accidents that are produced through lack of discipline of the drivers or pedestrians, is nothing but a crafty idea to make some money ...'
[CREA: Los Tiempos, 06/11/2000: Mallas de corrupción. Cochabamba, Bolivia 2000]

The holistic nature of the particle *dizque* may be seen most clearly in cases like the following, where *dizque* has become unanalyzable and can occur with a complement clause headed by the complementizer '*que*'. *Dizque* may thus be seen as a special case of heterosemy (particle-predicative) (cf. Wiemer 2010) (see Wiemer, this volume, Section 15.1.7.4).

(43) *Al preguntarle un amigo al expresidente Alfonso López Michelsen cómo estaba,*
dizque *que le contestó:*
say.PRS.3PL.COMP COMP he.3SG.DAT answer.3SG.PST.PFV
"envejeciendo dulcemente". Respuesta que no todos pueden dar por culpa de ellos mismos.
'When they asked the ex-President Alfonso López Michelsen how he was, **they say that** he answered: "sweetly growing old". An answer that not everyone can give through their own fault.'
[CREA: El Tiempo, 01/07/1998: Envejecer dulcemente. Bogotá, Colombia,1998]

6.3.2 Expressions derived from SEEM-verbs: *parece ser, según parece*

Perceptual evidential expressions are also subject to extensions within the sub-domain of indirect justification or indirect evidence. The constructional blend, *parecer + ser* (be.INF) + COMP, characteristically yields a reportative value, as in the following, though as mentioned above for example (19) marginal cases of an inferential value may also be found.

(44) *Este hombre que vive… en las afueras de Santiago de Compostela en unas*
       condiciones precarias, terribles y yo diría que infrahumanas y
       parece   ser <IRE>*,   según   nos   cuenta   él,   que*
       seem.PRS.3SG be.INF   according to us.DAT   tell.PRS.3SG he   COMP
       el Ayuntamiento de Santiago no le ayuda nada.
       'This man who lives in the outskirts of Santiago de Compostela in dire
       conditions, terrible and I would say subhuman and **it appears** <IRE>, ac-
       cording to what he tells us, that the Town Hall of Santiago does not help
       him at all.'   [CREA-CORDE: Oral]

Conversely, we may also find marginal cases of *parecer* with a reportative read-ing, typically in a reportative context, as in the following:

(45) *En principio, según fuentes cercanas a la investigación,*
       más   parece <IRE> *provenir*
       more   seem.PRS.3SG   come from.INF
       de la dinamita robada en la localidad bretona de Plévin en septiembre de
       1999 que de la posterior sustracción, en marzo de 2001, que perpetró la
       banda en Grenoble.
       'As far as can be ascertained, according to sources close to the investiga-
       tion, **it seems** <IRE> rather to come from the dynamite stolen in the
       Breton locality of Plévin in September 1999 than from a later robbery in
       2001, which the band perpetrated in Grenoble.'   [CESJD-SNP]

The parenthetical locution *según parece* would be an instance where the mean-ing has become practically restricted to the reportative value.

(46) *En el juicio contra Mario Conde se espera con atención el testimonio del*
       hombre que,
       según   parece <IRE>*,*
       according to   seem.PRS.3SG
       puede demostrar que los seiscientos millones se pagaron por los servicios
       que figuran en la factura.

'In the trial against Mario Conde there is great expectation regarding the testimony of the man who, **so it seems,** can prove that the six hundred millions were paid for the services which figure in the invoice.'

[CREA-Oral]

6.3.3 Expressions derived from BELIEF-verbs: *según se sospecha, se cree, supuestamente*

Passive middle expressions of belief such as *se cree* 'it is thought' or *se sospecha* 'it is suspected', are often found with a reportative value, especially in newspaper reports, often in combination with the ACCORDING TO-unit *según*. The epistemic adverb *supuestamente* 'supposedly' is also frequently found with a reportative value, as in (47).

(47) *Ese mes, los acusados **supuestamente** aprovecharon dicho fallo como caballo de Troya y lo explotaron sistemáticamente para colarse en los veloces equipos que usan los investigadores de la Universidade de Vigo y,*
según   se   sospecha <IRE>,
according to   MM   suspect.PRS.3SG
en otros centros públicos con supercomputadores infrautilizados.
'That month, the accused **supposedly** took advantage of that judicial ruling as a Trojan horse and they exploited it systematically in order to sneak into the fast speed equipments used by researchers from Universidade de Vigo and, **according to what is suspected**, in other public centres with underused supercomputers.'   [CREA: News]

6.3.4 Expressions derived from SEE-verbs: *por lo visto, por lo que se ve*

There are two constructions involving the verb *ver*, which are typically restricted to reportative evidentiality, *por lo visto* ('from that seen') and *por lo que se ve* (lit. 'from/by it which is seen', from what can be seen), as in the following examples:

(48) *El PSOE tiene serios problemas porque el resto de la lista de candidatos, aparte de los tres que salieron como concejal,*
por   lo   visto <IRE>   *apenas   se   hablan*
by.PREP   it.N   see.PST.PTCP   hardly   REFL   speak.PRS.3PL
entre   sí
between   one another

y ni se han tenido en cuenta, ...
'The PSOE [Socialist Party] has serious problems because the rest of the candidates, apart from the three who were chosen as councilors, **apparently** <IRE> hardly talk to one another and they have not even taken one another into consideration, ...'   [CREA]

(49)   *... y cómo claro, este chico, con catorce años, que un chaval por ... por lo visto,*

    o sea **por**   **lo**   **que**   **se**   **ve** <IRE>,

    that is   by.PREP   it   COMP   MM   see.PRS.3SG

    que era un chico muy estudioso, que era muy inteligente en la clase...

    '... and as of course, this young boy, fourteen years old, that a young kid apparently, that is **apparently** <IRE>, who was a very hard-working boy, who was very intelligent in class...'   [CREA]

6.3.5 Reportative ACCORDING TO-units: *según, de acuerdo con*

The preposition *según* 'according to' and the complex preposition *de acuerdo con* (lit. 'of accordance with', 'in conformity with') are near translation correlates of the English complex preposition *according to*. The preposition *según* seems to be more frequent with the reportative evidential meaning than *de acuerdo con*, which is more often found in non-evidential occurrences with the meaning 'in agreement with', especially in the spoken mode. This correlation extends to their non-evidential uses, since the expressions fit all the meanings listed in the *Merriam-Webster Dictionary* for English *according to* (i) in conformity with, (ii) as stated or attested by, and (iii) depending on (see Marín-Arrese, Carretero and Usonienė, this volume). Reportative evidentiality would correspond to the second meaning.

    Expressions with prepositions and complex prepositions *según* 'according to' or *de acuerdo con* 'in accordance with' most often involve the explicit designation of the original source as prepositional object. However, in these expressions the perspective point of the original speaker/writer is not present to the same extent as in speech representation, and the source may be defocused to a certain extent, as in the use of impersonal clauses as prepositional objects (cf. Marín-Arrese 2017b). Though these units involve source realization, Wiemer (this volume, Section 15.1.6) notes that these expressions may be deemed evidential in that they serve as epistemic justification of the communicated proposition (Boye 2012) by reference to the content of what was said by the source; but they do not represent their actual speech behavior. In this respect we will consider instances to be closer to the prototype of evidentiality where there is defocusing of the source and where

the original speaker's perspective is lost (cf., Chojnicka 2012), such as instances where the source of the information is one or more persons, or entities of different kinds such as reports or documents of some kind, or hearsay, as in *según rumores* 'according to rumors'.

In accordance with a 'narrow' conception of reportativity, example (50) would not qualify as such, since the original speaker's perspective is maintained, the source is made explicit, and the propositional information is presented as a direct quotation, in order to signal that the wording is accurate. In contrast, example (51) would be considered an instance of reportativity, since the perspective point is the current speaker's, who provides justification for the content of the proposition by signaling the original source of information.

(50)   *La obsesión por el dinero y la buena vida de Alemán superó el promedio de la proclividad oficial a la rapiña y "alentó a sus subordinados para lograr su objetivo de enriquecimiento ilícito", **según** la magistrada Juana Méndez.*
'Alemán's obsession for money and the good life exceeded the average of official proclivity to plunder and "encouraged his subordinates to fulfil his/their aim of illicit enrichment", **according to** magistrate Juana Méndez.'
[CREA: News]

(51)   *El riesgo de padecer enfermedades coronarias es más bajo en los hombres y mujeres que tienen dos hijos en comparación con quienes tienen más de dos, **de acuerdo con** dos grandes estudios británicos publicados en la revista Circulation.*
'The risk of suffering from coronary diseases is lower in males and females who have two children in comparison to those who have more than two, **according to** two British large studies published in the journal Circulation.'
[CREA: News]

These expressions *según* or *de acuerdo con* do not indicate speaker/writer commitment to the validity of the information. The degree of validity of the communicated information will naturally vary depending on the purported authority and/or social standing of the source: high validity of the information will be associated with sources having what White (2006: 64) terms 'evidential standing'. Marín-Arrese (2011: 44) notes that it is "a mechanism frequently used in journalistic discourse whereby the speaker/writer frames the proposition as highly warrantable, and at the same time avoids taking responsibility for the information or assessment".

6.4 Inferential and reportative uses: multifunctionality of *parecer*, *al parecer, aparentemente* and *supuestamente*

As discussed above in Section 6.2.2., it would appear that in Spanish we find multifunctionality in constructions with '*parecer*', with variations in preference for inferential vs. reportative values: both constructions, *parece* + INF and *parece + que*, are the preferred choice for inferential values, though reportative values are also found, particularly in oral discourse. In contrast, the constructional blend *parece ser que* is practically restricted to reportative values, though some instances of inferential uses have been found in oral discourse. The parenthetical *parece ser* appears to be found solely with a reportative value (Marín-Arrese 2017a: 217).

Similarly, some adverb(ial)s may be found with both an inferential value, indicating low commitment to the communicated information, or with a reportative value, marking the information as originating from external voices: the adverbial *al parecer* 'apparently' and the adverbs *aparentemente* 'apparently' and *supuestamente* 'supposedly'. Marín-Arrese (2015: 220–221) observes that

> [i]n the case of adverbial expressions, there seems to be a division of labour between *aparentemente* and *al parecer* in Spanish. Though both indirect-inferential and indirect-reportative meanings are found for these expressions, *aparentemente* tends to appear with an inferential meaning, whereas the locution *al parecer* is more common with the reportative meaning, and also tends to appear as a parenthetical. Parenthetical uses of *al parecer* with an indirect inferential meaning, however, are also found in our corpus.

The following examples from Marín-Arrese (2015: 221) exemplify these uses:

(52)　IIE: *Resulta que el amor es ciego y **aparentemente** <IIE> no le ha dejado ver al señor Rudolf Scharping (inepto jefe del SPD entre 1993 y 1995) que sus continuos desplazamientos en avión oficial para acudir a los brazos de la condesa Pilati en su villa de Mallorca no eran un comportamiento sensato.*
'It turns out that love is blind and **apparently** has not allowed Mr Rudolf Scharping (...) to see that his continuous trips in an official plane to fly to the arms of Countess Pilati in her villa in Mallorca did not constitute a sensible behavior.'　　　　　　　　　　　　　　　　　　　[CESJD-SOA]

(53)　IRE: *Y presumiblemente, la dignidad **aparentemente** <IRE> mostrada por Sadam en los instantes finales de su vida, sirva para conferirle a los ojos de algunos una aureola de mártir.*
And presumably, the dignity **apparently** shown by Sadam in the last moments of his life, may serve in the eyes of some to confer on him the aura of a martyr.　　　　　　　　　　　　　　　　　　　　　[CESJD-SLP]

(54) IRE: *Aunque muchos de los casos aún no han sido diagnosticados como legionelosis, el brote, **al parecer** <IRE> originado en el centro de la ciudad, puede haber afectado a más de cien personas.*

'Though many of the cases have still not been diagnosed as legionnaire's disease, the outbreak, **apparently** originating in the city centre, may have affected more than a hundred people.'   [CESJD-SLA]

(55) IIE: *Las relaciones internacionales de la era global se siguen jugando, **al parecer** <IIE>, en la química de las impresiones y los afectos. A pesar de la facilidad para establecer contactos interoceánicos instantáneos, nada como mirarse en la pupila sin intermediarios electrónicos, nada como olerse la fragancia varonil [...] para ver cómo respira el otro.*

'International relations in the global era are still played, **it seems**, in the chemistry of impressions and affect. In spite of the ease in establishing instant interoceanic contact, nothing like looking into each other's eyes without electronic intermediaries, nothing like smelling one another's manly fragrance [...] to understand how the other feels'   [CESJD-SOA]

6.5 Further items and issues

Spanish has a complex system of inflections to express various temporal, aspectual and modal relations, and these forms are also found to express evidential values. TAM forms are attested for epistemic and evidential uses in a number of European languages, including Bulgarian, English, French, German, Italian, Portuguese and Spanish (Palmer 2001; Dendale 2010; Squartini 2001, 2004; Kronning 2015; Celle 2005, 2008; Laca 2006; Smirnova 2013; Oliveira 2015; Vatrican 2015; Marín-Arrese 2018 *inter alia*). As Cruschina and Remberger (2008: 98) observe,

> ... [t]he Romance languages express evidentiality through various modal and temporal forms, following a pattern that is typologically characteristic of the languages of Western Europe, where the development of evidentials from modal morphemes is a typical feature. [...] The conditional, the future, the imperfect, and periphrases with modal verbs (e.g. *dovere/devoir/deber* + infinitive), are traditionally assumed to take on evidentiality meanings in specific contexts.

Temporal concepts, Jaszczolt (2009: 140–141) argues, parallel a scale of epistemic modality reflecting degrees of "detachment from the certainty of *now*", from highest certainty (least detachment) to lowest certainty (most detach-

ment). Similarly, Chilton (2013: 253) notes that across languages, it is relatively common to find uses of future tense forms which in certain contexts yield an epistemic, or "putative", cognitive effect, as a result of the "close cognitive connection between future time reference and the inherent cognitive (or even metaphysical) uncertainty of the future".

In Spanish we find a series of verbal temporal-aspectual forms which have developed inferential and/or reportative values: future simple, future perfect, imperfect, conditional simple, and conditional perfect.

(a) Future Simple: The future tense may yield epistemic and inferential evidential values (Hennemann 2013):

(56)   *<H4> No, no, no, no, no, no, es un "pí" del teléfono y.., y un eco; yo oigo un eco muy fuerte. <H5> Puede ser el satélite.*
       <H4> **Será** <IIE>   *el*   *satélite.*
       be.FUT.3SG   the   satellite
       Por eso te preguntaba desde dónde llamabas. Digo, igual está fuera de Madrid.
       '<S4> No, no, no, no, no, no, it's the sound of a telephone ring and …, and an echo, I hear a very strong echo. <S5> It may be the satellite. <S4> It **will/must be** the satellite. That's why I was asking where you were ringing from. I say, maybe it's outside Madrid.'   [CORLEC]

(b) Future Perfect: The future perfect verbal forms are found with epistemic and inferential evidential values:

(57)   *<H3>El contacto con esas obras de arte pictóricas,*
       habrá *<IIE>*   **hecho**   *de*   *ti*
       FUT.PRF.3SG   make.PST.PTCP   of   2SG
       una experta en esa materia.
       '<S3> The contact with those works of pictorial art **must have** [lit. '**will have**'] **made** you an expert in that field.'   [CORLEC]

These extensions are not random since they are attested in systems with grammatical evidentiality, as well as in systems lacking a fully grammaticalized system of evidentiality such as Spanish and other Romance languages. Anderson (1986: 275) makes the point that these evidential extensions of the perfect often arise

> by historical change from certain kinds of perfect (those of result state or of current relevance) […] While the English Perfect […] remains primarily a perfect with many non-evidential uses, the 'Perfects' of other languages have historically become evidentials with no need for an additional signal like English *must*.

As Marín-Arrese (2018: 91) notes, "[t]he effect of inference based on a verifiable resultant state no doubt increases the potential of the extension of the future perfect to indirect inferential evidentiality".

(c) Imperfect (Past Imperfective): The imperfect may acquire near-reportative readings, in that it "implicitly makes reference to an external source of information" (Böhm and Hennemann 2014: 12), as in the following example:

(58) *No obstante, los demócratas celebran la llegada al Senado de dos fenómenos interesantes. Uno de ellos es Barack Obama, único negro en la Cámara Alta y figura creciente del partido,*

cuya	*victoria*	*en*	*Illinois*	**era** <IRE>	*tan*	*segura*
whose	victory	in	Illinois	be.IMPF.3SG	so	sure

que antes incluso de ser elegido recorrió todo el país haciendo campaña por Kerry.
'Nevertheless, the Democrats are celebrating the arrival to the Senate of two interesting phenomena. One of them is Barack Obama, the only black man in the Higher House and an increasingly important figure in the party, whose victory in Illinois **was** so certain that even before he was elected he travelled throughout the country campaigning for Kerry.'

[CESJD-SNP]

(d) Conditional: The conditional is characteristically found with epistemic and inferential evidential values. The simple conditional may also extend to a reportative reading, typically in a reportative context, as in (60) (Vatrican 2015; Marín-Arrese 2018):

(59) *<H2> ¿De hierro y de cobre? <H1> No había, no había. <H2> ¿No había de hierro? <H1> No había, no, no, no.*

<H3> Bueno,	*las*	*sartenes*	*si*	**serían** <IIE>	*de*
well	the.F.PL	pans	yes	be.COND.3PL	of

<H1> Las sartenes sí. <H3> de hierro y eso.
'<S2> Made of iron and copper? <S1> There weren't, there weren't. <S2> There were none (made of) iron? <S1> There weren't, no, no, no. <H3> Well, the pans **would** definitely **be** made of ... <S1> The pans, yes. <S3> of iron and that. ...'   [CORLEC]

(60)

Según	*una*	*teoría*	*evolucionista,*	*Quintano*	**sería** <IRE>
according to	a	theory	evolutionary	Quintano	be.COND.3SG

el eslabón perdido del mudéjar de Serrano, ...
'**According to** an evolutionary theory, Quintano **would be** the missing link of the Mudejar style in Serrano, ...'   [CREA]

(e) Conditional Perfect: The conditional perfect typically yields reportative evidential values:

(61) *Por otro lado, y según fuentes de la lucha antiterrorista, ETA aún no ha cobrado 500 millones de pesetas de los 1.000 que exigió para liberar al abogado Cosme Delclaux.*

La	*familia*	*se*	***habría*** <IRE>	***comprometido***	*a*	*abonar*
the	family	REFL	COND.PRF	commit.PST.PTCP	to	pay

ese segundo plazo después de la liberación de Cosme, ...

'On the other hand, and according to sources of the anti-terrorist fight, ETA had not yet received 500 million pesetas of the 1,000 that it demanded to liberate the lawyer Cosme Delclaux. The family had **reportedly** [lit. '**would have**'] **committed** themselves to pay that second instalment after the liberation of Cosme,...'   [CREA]

As Marín-Arrese (2015: 2014) observes,

> [i]n Spanish, especially in the context of journalistic discourse, there is an increasing tendency to use the conditional perfect form of the verb (*habría/n*) with an evidential reportative value in news reports on the radio or on TV (personal observation). This use has relatively recently permeated into the written discourse and appears to be increasing during the past few years (personal observation).

In journalistic discourse the use of these forms of non-alignment contribute to convey a neutral stance or to indicate unendorsed information.

6.6 Remarks on diachrony

This section discusses the diachrony of some of the evidential expressions described in this chapter. The examples have been obtained from the *Corpus Diacrónico del Español* (CORDE)[7], a corpus[8] of written texts from the beginning[9] of the Spanish language, *español* from the Provençal term *espaignol*, until 1975. CORDE[10] includes all the varieties of Spanish: 74% of the words correspond to

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7 URL: http://www.rae.es/recursos/banco-de-datos/corde.

8 The size of CORDE is 125 million words.

9 The first texts date back to the 10th century, *Glosas Silenses* (Monasterio de Silos, Burgos) and *Glosas Emilianenses* (Monasterio de San Millán de la Cogolla, La Rioja), and the 12th century, *Cantar de Mio Cid.*

10 The quantitative data of the distribution of words across centuries and genres are specified in http://corpus.rae.es/ayuda_c.htm, accessed March 25, 2019.

Peninsular Spanish and 26% to Pan-American varieties of Spanish. The translation of the examples was carried out with the aid of Gutiérrez Tuñón's (2002) *Dictionary of Old Castilian* and of the *Nuevo Diccionario Histórico del Español* (NDHE).

As in the other languages described in this volume, Spanish presents a similar pattern of diachronic development of evidential expressions from non-evidential lexico-grammatical elements; in the case of modal elements typically following a path from root modals to the acquisition of epistemic and inferential evidential values through subjectification (Langacker 2003; Boye 2012). In most other cases, these non-evidential source elements are adverbs of manner and constructions with verbs of perception, belief or communication. The development of these polysemies involves a diachronic process of inter/subjectification in the sense of Traugott (1995, 2010), which pertains to speaker/writer's attitude towards the content of the communicated proposition, and attention to sharing evidence or bringing it to the addressee's attention (Whitt 2011).

6.6.1 Expressions derived from SEE-verbs

With regard to evidential expressions derived from the verb *ver* 'see', the earliest occurrences of the construction *veo que* 'I see that' were attested in the 13th century. The meaning was pure perception in most cases, but some evidential cases may also be found, such as the following example of inferential evidentiality:

(62) *Et dexáronme et desecháronme et fuéronse a mis enemigos, et començaron a dezir mal de mí et de me abiltar a los que me avían enbidia, et alongáronse de mí et non tornaron por mí cabeça. Et dixe en mi coraçón:*

    Veo   **que**   la   conpaña   et   los   amigos
    see.PRS.1SG COMP the.F.SG company and the.N.PL friends
    et los vasallos non son sinon con el aver, et non paresçe la nobleza del coraçón nin el seso nin la fuerça sinon con el aver.

    'And they left me and abandoned me and approached their enemies, and they started to speak ill of me and to debase me in front of those who had envy of me, and went away from me and did not turn their heads towards me. And I said to my heart: '**I see** that company and friends and vassals can only be kept by having wealth, and nobility of heart or head or strength do not appear but with having wealth.'

    [Anonymous, *Calila e Dimna*. 1251. Ed. by Juan Manuel Cacho Blecua and María Jesús Lacarra, Madrid, Castalia, 1951]

By contrast, the first occurrences of *se ve que* 'one sees that', 'it is seen that', did not occur until the 16th century. Evidential occurrences were already found along with occurrences of pure perception. It must be noted that the source of evidence is often specified, as in the following example.

(63)   *Y por la gran resistencia que hubo de los gentiles contra aquella ley de*
         Constantino, otros emperadores disimulaban con los gentiles en el uso de
         los ritos, por evitar escándalos en el Imperio, como se ve por lo que escribió
         Sant Ambrosio en las epístolas 30 y 31,

por	las	cuales	**se**	**ve**	que	en	sus	tiempos
by	the.F.PL	which	MM	see.PRS.3SG	COMP	in	their	times

eran poderosos los gentiles, que no solamente había muchos en el senado
romano, más aun el prefecto de la ciudad era gentil, que se llamaba
Símacho.

'And due to the Gentiles' great resistance against that law by Constantine, other emperors pretended along with the Gentiles in the use of rites, in order to avoid scandals in the Empire, as is seen by what Saint Ambrose wrote in Epistles 30 and 31, by which **one can see** that in his time the Gentiles were powerful, that not only were there many in the Roman Senate, but even the Prefect of the city, who was called Simacho, was a Gentile.'

> [Fray Bartolomé de las Casas. 1552. *Controversia entre Las Casas y*
> *Sepúlveda* [Tratados de 1552], ed. by Ramón Hernández and Lorenzo
> Galmés, Madrid, Alianza Editorial, 1992]

6.6.2 Expressions derived from SEEM-verbs

The expression *parece* 'it seems' (from: Lat. vulg. **parescĕre*, derived from Latin *parēre*) has its origins in the 13th century. Most of the occurrences found had the object pronoun *me* ('me') with a subjective meaning of speaker/writer's belief or opinion. However, a substantial number of evidential occurrences, such as (64), were also found.

(64)   *Peró fallamos por escritos de sabios departidores d'esta razón que*
         podemos dezir que aquel día que los ebreos tomaron la ley que esse día
         mismo se fueron d'aquel monte de Sinaí, mas maguer comoquier que
         conteciesse que serié esto andando antes todo enderredor un año natural,
         e ellos vinieron al mont el día d'antes que el mes de enero entrasse, e

tomaron la ley en el mes de juño tercer día andado; e si ell año rebuelto se fueron en esse tercero día mismo

parece <IRE> *que* estidieron ý un año e cuatro días.
seem.PRS.3SG COMP be.PST.3PL there one year and four days
'But we find by writings of wise communicators of this story that we can say that the very day that the Hebrews adopted the law, they departed from Mount Sinai, but however it could have been that this occurred about a year before, and they came to the Mount the day before January started, and they adopted the law on the third day of the month of June; and if in the year gone through they left the Mount on that third day, **it seems** that they were there one year and four days.'

> [Alfonso X. c. 1275. *General Estoria*. First part. Ed. by Pedro Sánchez Prieto-Borja, Alcalá de Henares University Press, 2002].

As for *parece ser + que* 'it seems to be + that.COMP', the earliest evidential occurrences with a reportative value are dated in the late 15th century. The construction became common for reportative evidentiality in the following centuries.

(65) *Pero el dicho muy Sancto Padre quiso ynposar otra pension de cient ducados, pagadera a micer Geronimo de Porcariis; a la qual pension yo no quise consentir nin dar lugar, antes mande al dicho electo de Patti que no passase nin acceptase la dicha pension, car la renta del dicho obispado es tan poca, que stimamos ser arto cargado de la dicha pension de dozientos ducados;*

y **parece** **ser** <IRE> **que,** por esta causa,
and seem.PRS.3SG be.INF COMP by this cause
tienen embargadas las bullas en Roma al dicho electo.
'But the said very Holy Father wanted to grant another pension of a hundred ducats, payable to my lord Geronimo de Porcariis, to which pension I did not want to consent or to give way, rather I ordered the said elected of Patti not to pass or to accept that said pension, since the rent of said bishopric is so scarce, that we deem it to be heavily charged with the said pension of two hundred ducats, and **it appears that**, because of that, they have the assets of said elected confiscated in Rome.'

> [Anonymous. 1488. *Fernando e Isabel al Papa*, Notarial documents. Ed. by Antonio de la Torre, CSIC, Barcelona, 1949–1951]

The locution *al parecer* 'apparently' (lit. 'to the judgment/evaluation/opinion') is also first attested in the 15th century. Most of the occurrences found from this period have the non-evidential meaning of 'according to appearances', 'according to what is initially perceived', or 'in someone's opinion', as in *al parecer de*

todos ('in everyone's opinion'). However, evidential occurrences are also attested, as in the following.

(66)   *No me maravillo, porque si no es con algún grande amigo no se comunica jamás. Y aunque **al parecer** <IIE> todos, como ves, lo tienen por muy comunicable, tiene la conversación harto esquiva en cosas de importancia.*
       'I do not marvel, since if it is not with a great friend [he] never ever communicates. And even though **apparently** everyone, as you see, consider him as very communicative, he has a very evasive conversation about important matters.'
       [Anonymous. c. 1500. *Comedia Thebayda*. Ed. by José Luis Canet, UNED-University of Sevilla – University of Valencia 1993]

The meanings of this expression, initially more frequent in non-evidential occurrences, seems to have gradually decreased in the meanings of appearances and opinion, with the consequence that practically only the evidential meaning remains in present-day Spanish.

As to the construction *a lo que parece* 'apparently' (lit. 'to that which it seems'), it is first attested in the 14th century with a meaning of 'according to appearances' and also with an indirect-indifferent value, as can be seen in the following example, which may be interpreted as either inferential meaning ('from what can be inferred from the way it is') or as reportative meaning ('what you have heard about the case').

(67)   *Ya haures sabido el caso de Plazencia, de la manera que sta; y **a lo que parece**, si otra mudança no hay, está en buenos terminos para lo que vos desseays.*
       'You must have known about the case in Plasencia, the way it is, and **apparently**, if there is no other change, it is in good circumstances for what you wish.
       [Anonymous. 1488. *Fernando e Isabel a Bernardino Carvajal, procurador en Roma, sobre provisión de cargos eclesiásticos*. Ed. by Antonio de la Torre, CSIC, Barcelona, 1949–1951]

6.6.3 Diachronic extensions of modal *deber (de)*

The modal verb *deber* (from Lat. *debēre* 'owe, have a debt', 'have an obligation') is first attested in 1408, according to the CORDE corpus, with the deontic meaning of obligation. The first occurrences with an epistemic or an inferential value are found in the 16th century, as in the following example.

(68) *… y nombrando a las mujeres que se hallaron en la iglesia cuando se consagró, a todas las llamaba Doña tal y Doña tal, mujeres que eran de los labradores que allí vivían; a ellos solos sus nombres sin don; y sin este lugar **debe** haber otros muchos en Castilla donde se usaba lo mismo. Y siendo yo muy niño alcancé a conocer a una vieja de hartos años que pedía por Dios y la llamaban Doña Toribia; y de aquí **debe de** nacer que llamamos dueñas a las que son doncellas y andan en otro hábito más adelantado que las labradoras, aunque ellas lo sean. Este nombre dueña parece diminutivo de doña, pues entendemos por él mujeres no de tanta calidad como las dueñas, no obstante que a las veces todo anda revuelto y confundido.*

'… and naming the women who were present in the church when it was consecrated, he named all of them Doña so and so and Doña so and so, wives of the field laborers who lived there; and them only by their names without don; and apart from this place there **must** be many other places in Castilla where the same was used. And when I was very small I happened to know a very old woman who begged in God's name and they called her Doña Toribia; and from here it **must** come that we call dueñas those who are unmarried and belong to a higher class than the field laborers, even if they are. This name dueña seems to be a diminutive of doña, because by it we understand women of not such a high quality as the dueñas, nonetheless at the same time everything is muddled and confused.'

[Hermosilla, Diego. 1545. *Diálogo de los pajes en que se trata de la vida que a mediados del siglo XVI llevaban en los palacios*. Ed. by Seve Calleja, Miraguano, 1989, Madrid]

Diachronic extensions from the domain of epistemic modality to inferential evidential values have been posited for epistemic necessity modal verbs, English *must* and Spanish *deber (de)*, as well as for the modal/future marker *will* and the Spanish future tense marker, as in the verb form *será* ('(it) will be') (van der Auwera and Plungian 1998; Becker and Remberger 2010; Boye 2012; Marín-Arrese and Carretero 2014, Marín-Arrese 2017a, *inter alia*). This evidential extension, as Boye (2012: 153) notes, is "not entirely uncontroversial", since it would imply a prior epistemic modal extension where "non-epistemic necessity extends into partial, rather than full support". As Boye (2012: 154) observes, epistemic modal extensions evolve from non-epistemic modals of "comparable intensity: expressions of non-epistemic possibility (ability, permission) evolve extensions of epistemic possibility; expressions of non-epistemic necessity (compulsion, strong intention, obligation) evolve extensions of epistemic necessity". Thus for both English *must* and Spanish *deber (de)*, we would posit a

prior extension from non-epistemic necessity to full support (epistemic necessity). There are, however, clear differences in the distribution of the epistemic and non-epistemic occurrences of the Spanish modal verb *deber (de)* and English modal auxiliary *must*. As Marín-Arrese and Carretero (2014: 341) observe, "the modal verb *deber (de)* is still at a stage of diachronic development where the non-epistemic meanings are significantly favoured".

6.6.4 Indirect-inferential and reportative sentence adverbs

The medium/low reliability adverb *aparentemente* was uncommon up to the 17th century, and its occurrences were mostly non-evidential, with the meanings 'according to appearances', or 'in a convincing way'. Inferential or near-inferential values may be found in that century, as in (69), though most of the evidential occurrences date from the 18th century, as in the example of a reportative value in (70).

(69) *Pero esta costunbre tan inhumana y fiera por la mayor parte está ya en poco vso porque las mugeres que hazian de sí este horrible acto, aunque* **aparentemente** <IIE> *pareçian cometello de su voluntad, la verdad era ir persuadidas de sus padres, hermanos y otros parientes suyos, pareçiendoles quedar mas honrrados de auer cometido estas miserables tan cruel genero de sacrifiçio, con el qual se persuadian con una vana y sinple anbiçion que dexauan de si una perpetua fama de castas y honrradas, demas de gozarse eterna é inmortalmente con sus maridos;*
'But that custom, so inhuman and fierce, in the majority of cases is now scarcely in use because the women who did this horrible act to themselves, although **apparently** they seemed to commit it of their own free will, the truth is that they were persuaded by their fathers, brothers and other relatives, seeming to them that they were more honoured for these miserable beings having committed such a cruel form of sacrifice, with which they were persuaded with a vain and simple ambition that they left after them a perpetual fame of being chaste and honest, in addition to enjoying [the company of] their husbands eternally and immortally.'
   [Silva y Figueroa, García de. c.1618. *Comentarios*. Ed. by Manuel Serrano y Sanz, *Sociedad de bibliófilos españoles*, Madrid, 1903–1905]

(70) *Lo tercero, se ha observado que en las vecindades de las minas de azogue hace la peste menor estrago que en otras partes. Lo que* **aparentemente**

<IRE> *viene, de que los vapores o exhalaciones de el azogue, que es veneno para varias especies de insectos, matan los que son autores de el mal.*
'Thirdly, it has been observed that in the neighbourhoods of quicksilver mines the plague wreaks less havoc than in other places. Which **apparently** is due to the fact that vapours or exhalations of quicksilver, which is poison for several insect species, kill those that provoke the disease.'

[Benito Jerónimo Feijoo. 1736. *Teatro Crítico Universal*, VII]

Unlike *aparentemente*, the other two adverbs of medium/low reliability, *presuntamente* and *supuestamente*, are only attested in CORDE for Peninsular Spanish in the 20th century. The first occurrence of *presuntamente* in CORDE dates from 1943, and that of *supuestamente* from 1946. Most occurrences found in CORDE were evidential, which suggests that the evidential meaning is not a result of a process of subjectification and derivation from other meanings.

As for the adverbs of high reliability, *claramente* displays its first occurrences in the 13th century, always with a meaning of manner. The frequency of occurrences increases significantly in the 15th century, and evidential occurrences are attested, as in the following example.

(71) *Aquellos que dizen avemos de tomar los fijos & con ellos del todo nos alegrar & tomar todos los gozos que podieremos porque corren en çaga de nos et non tenemos seguridad de la presente noche, **claramente** <IIE> desesperan de poder aver alguna alegria en ellos despues de esta vida, lo qual nos avemos de creer sin dubda alguna.*
'Those who say that we have to hold our children and, with them, be happy completely and take all the joys that we can, because they run behind us and we do not have security about the present night, they **clearly** despair from being able to have any happiness in them after this life, in which we have to believe without any doubt.'

[Alonso Fernández de Madrigal, "El Tostado". 1440–1455. *Libro de amor e amiçiçia*. Ed. by María Teresa Herrera and María Nieves Sánchez. 2000. Salamanca, Universidad de Salamanca]

The adverb *evidentemente* is first attested in the 16th century, according to CORDE, with a meaning of manner 'in a clear/evident way', a meaning virtually absent in present-day Spanish. In the 18th century *evidentemente* undergoes a strong increase and the first clear evidential uses are found. In the 20th century the high frequency of cases in sentence-initial position contribute to the pragmaticization of this adverb, which becomes an interactive marker of common knowledge (cf. Carretero et al. 2017: 44–45, 54).

By contrast, *obviamente* does not appear until the 19th century, all of the initial occurrences with an evidential meaning, as in (72). Therefore, the CORDE data suggest that *obviamente* was coined with an evidential meaning and never had an intra-propositional meaning of manner.

(72)   *Empero emancipando todas las tierras estancadas de cualquier*
    denominacion que fueren, y distribuyendolas en el pueblo, como se ha
    dicho, no solo el gobierno tendrá buena fé, porque habrá abundancia, sino
    que la produccion atenderá **obviamente** <IIE> *á las necesidades corrientes*
    y á las obligaciones pretéritas y futuras, sin temor de vernos un día
    invadidos por esas plagas de unionistas y mutualistas que son mas
    perjudiciales á la humanidad que el cólera morbo y el vómito prieto.
    'However, by emancipating all stagnant lands whatever their denomination may be, and distributing them among the people, as has been said, not only will the government have good faith, since there will be abundance, but production will **obviously** attend to common needs and past and future obligations, without fear of seeing ourselves someday invaded by those plagues of unionists and mutualists who are more harmful to humanity than morbid cholera and black vomit.'
    [Juan de Olavarría. 1833–1834. *Memoria dirigida a S. M. sobre el medio de mejorar la condición física y moral del pueblo español.* Ed. by José Esteban, Fundación Banco Exterior, Madrid, 1988]

6.6.5 Reportative expressions derived from SAY-verbs: *se dice que* and *dicen que*

The impersonal construction *dicen que* 'they say that' started quite early, in the 13th century. The evidential meaning already occurred, as attested by (73).

(73)   *Porque tenemos por bien é mandamos que los judios é los moros que*
    moraren en las casas de los christianos alogados, que les de sos derechos,
    asi como los darien los christianos, si y morasen. Otrosi **dicen** <IRE> **que**
    ay algunos omes que yacen en sentencia de descomulgamiento, por
    diezmos, é por sacrilegios, é por calonias.
    'Since we consider it fair and we order that the Jews and the Moors that inhabit the houses of Christians as renters, that they be given their rights, in the same way as the Christians would be given, if they lived there. Furthermore **they say** there are some men who lie under sentence of excommunication, because of tithes, and for sacrileges, and for calumnies.'

[Anonymous. 1280. "Carta del rey don Alfonso X mandando al concejo de Córdoba diera ayuda a Pero Bocas, …". Ed. by Francisco Fernández y González, Madrid, Real Academia de Historia, 1866]

The *se*-passive or passive middle construction *se dice que* ('it is said that', 'one says that') appeared later; its first occurrence is dated in the late 14th century, with a non-evidential meaning. The 15th century displayed further occurrences, some of them with an evidential meaning, as in (74). The construction was fully established by the 16th century.

(74) *Cibdadanos de oro poseen casas de plata e el muro bendicho de una cibdad abraza dentro de sí mil Catones. Et más, **se dice** <IRE> **que** ellos con sola la gravedad de su regimiento, no echando a cuestas peso de armas, han vencido muchas vezes a crueles tiranos.*
'Golden citizens own silver houses and the blessed wall of a city embraces a thousand Catons within itself. And what is more, **it is said that** they, only with the gravity of their regiment, not carrying the weight of their arms, have beaten cruel tyrants many times.
[Alfonso de Palencia. *Tratado de la perfección del triunfo militar*. Ed. by Mario Penna, Madrid, Atlas, 1959]

The marker *diz(que)*, found in Pan-American varieties of Spanish, derives from the fusion of *diz(e)* (say-PRS.3PL) + *que* (that-COMP), c. 1310, which became petrified as a particle, *dizque*, in the late 15th and early 16th centuries (see also Olbertz 2007; Travis 2006; Babel 2009; Alcázar 2014, 2018) (see Section 6.3.1 above). In CORDE we find examples of *dizque* with a reportative value from 16th century Peninsular Spanish.

(75) *Habrá dos o tres días que por carta del teniente que en mi lugar está en la Villa de la Vera Cruz, supe cómo al puerto de la dicha villa había llegado una carabela pequeña con hasta treinta hombres de mar y tierra, que **dizque** venía en busca de la gente que Francisco de Garay había enviado a esta tierra, …*
'It must have been two or three days ago that by letter from the lieutenant who is at the Villa de la Vera Cruz in my stead, I learnt how a small caravel had arrived at the port of that said villa with as many as thirty men from sea and earth, that **they say** came in search of the people Francisco de Garay had sent to this land, …'
[Cortés, Hernán. 1519–1526. *Cartas de relación*. Ed. by Mario Hernández, Historia 16, Madrid, 1988]

As Marín-Arrese (2020:118) observes,

Mirroring the impersonal Latin *dicitur* 'they say, it is said,' the apocopated form *diz que* was used as an evidential strategy to convey hearsay or reportative information, and became a univerbated form, *dizque*, in the late 15th and early 16th centuries, with a quasi-adverbial function. However, by the 17th century the form was stigmatized, and its use gradually declined toward the end of the century in Peninsular Spanish in parallel with the rise of the alternative impersonal forms of decir, *se dice* 'it is said' or *dicen* 'they say,' as reportative evidential strategies.

See also López-Couso and Méndez-Naya 2015.

Abbreviations in glosses (not included in LGR)

HON	honorific
IMPRS	impersonal or pseudo-impersonal expressions
MM	middle marker, impersonal passive marker, passive middle marker

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    <http://www.corpusdelespanol.org>
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SLA: Spanish-Leading article-ABC; SLP: Spanish-Leading article-El País; SOA: Spanish-Opinion column-ABC; SOP: Spanish-Opinion column- El País; SNA: Spanish-News reports-ABC; SNP: Spanish-News reports- El País.

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Andreu Sentí

7 Evidentiality in Catalan

7.1 Introduction

Evidentiality in Catalan has not received much attention until a few years ago. Recently, the interest in this subject has grown and several studies have been published. The starting point is the *Gramàtica del Català Contemporani* (GCC), where the modal and evidential values of the future tense and conditional tense are described (Pérez Saldanya 2002). In a functionalist approach, several pragmatic markers with evidential values have been studied, such as *la veritat* 'the truth', *(és) clar* 'it is clear' (González 2014, 2015; Cuenca and Marín 2012), as well as the modal verb *deure* 'must' and the constructions *es veu que* 'it seems that' (González 2011) and *diu que* 'it is said that' (Antolí Martínez and Sentí 2020), among other interpersonal markers and their functions in argumentative texts (in particular, parliamentary debates) (Cuenca 2015). From a diachronic point of view, research has been made on the rise of evidential (and epistemic) values in Catalan (Section 7.7).

This chapter offers a panoramic overview of evidentiality in contemporary Catalan. On the one hand, we present the main insights of the aforementioned studies. On the other hand, we approach the Catalan evidential (and modal) markers through data in spoken and written corpora. Fundamentally, our data comes from the *Corpus Oral Dialectal* (COD), because it is the only corpus that contains oral texts from all dialects. However, since it is a quite limited corpus, we also use the *Corpus Oral de Conversa Col·loquial* (COC), the corpus *Parlars*,[1] the *Museu de la Paraula*,[2] the *Corpus Textual Informatitzat de la Llengua Catalana* (CTILC), the *Corpus Informatitzat del Valencià* (CIVAL) and as well as written texts from books, social networks, and oral spontaneous encounters witnessed over the past few years.

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[1] The corpus *Parlars* is an informal speech corpus with conversational and monological spoken texts from Valencian Catalan. It is an ongoing project.
[2] The *Museu de la Paraula* is not a corpus for a linguistic purpose, but an oral archive of personal narrative by older Valencian Catalan-speakers. However, the oral inverviews are provided with transcription and a search engine is available.

7.2 Overview

Catalan is not a language with a grammatical evidential system. There is no obligatory morphological system with evidential morphemes that encode primarily the source of information, unlike many other languages (Aikhenvald 2004). However, Catalan has evidential strategies, as is the case of the other Romance languages and most of European languages. These strategies consist of expressions and several ways to indicate the source of information. Also, some grammaticalized evidential constructions can be found, such as *es veu que* 'it seems that' (lit. 'one sees that'), *diu que* 'it is said that' (lit. 's/he says that'), *sembla que* 'it seems that'.

According to the classical classification proposed by Willett (1988), we distinguish direct and indirect evidentiality. This chapter focuses on indirect evidentiality, since in Catalan, this domain is better represented than direct evidentiality. Section 7.3 describes inferential evidentiality. We first deal with several constructions with the SEEM-verbs *semblar* and *parèixer* (Section 7.3.1). After that, we discuss the values of modal verbs, paying special attention to *deure* 'must', but taking also into account the evidential uses of future and conditional tenses (Section 7.3.2).

The last part of Section 7.3 is devoted to inferential adverbs (Section 7.3.3). In Section 7.4, we focus on reportive evidentiality. The constructions *diuen que, es diu que*, *diu que* 'it is said/they say that') (Section 7.4.1), *es veu que* 'it seems that' (Section 7.4.2), the hearsay values of the verbs *semblar/parèixer* 'seem' (Section 7.4.3), the construction *resulta que* 'it turns out that' (Section 7.4.4) and the reportive conditional (Section 7.4.5) are described. Evidential markers can also encode an indifferent-indirect meaning, that is, a meaning that does not discriminate whether the source of information is some trigger for an inference or reportive. This is the case of *es coneix que* 'it is known that' presented in Section 7.5. Direct evidentiality (whether visual or not), encoded for example by verbs of perception (*veure* 'see', *sentir* 'hear, feel'), is briefly described in Section 7.6.1. We next turn to pragmatic markers with evidential uses (Section 7.6.2). We finally offer a diachronic perspective on evidential markers in Section 7.7. The conclusions are drawn in Section 7.8.

7.3 Inferential units

This section deals with inferential evidentiality (Willett 1988), i.e. markers indicating that the speaker accesses the information through an inferential process. This chapter follows Squartini's proposal (2008), which distinguishes three

inferential values: a) specific inference (or circumstantial inference in Anderson's (1986) terms), *i.e.* a mental process based on external sensory evidence; b) generic inference, *i.e.* inferencing without external evidence, namely that the speaker only bases his/her reasoning process on general world knowledge and previous personal experience; and c) conjectures, *i.e.* "the speaker being solely responsible for the reasoning process" (Squartini 2008: 925). In what follows, the verbs *semblar* and *parèixer*, modal verbs such as *deure* and the evidential values of future and conditional tenses are presented.[3]

7.3.1 Markers derived from SEEM-verbs

Catalan has two verbs equivalent to English *seem: semblar* and *parèixer*, which have evidential values. These verbs are synonyms and have similar uses in two different constructions: in sentences with a predicative complement and in impersonal sentences. In Standard Catalan, the prevailing verb is *semblar*, which is common to all Catalan dialects; in some dialects though, *semblar* coexists with *parèixer*, as is the case in Western and Balearic Catalan (Veny and Massanell 2015). The latter are the more conservative dialects and therefore they preserve the verb *parèixer*, which was the main verb in Old Catalan (see Section 7.7). Catalan SEEM-verbs have not been much studied from a semantic point of view, with a few recent exceptions (see Cuenca 2015; Antolí Martínez 2017).

The basic syntactic configuration of Catalan *semblar* and *parèixer* is the construction in which they are a copula or linking verb with a predicative adjective or phrase.[4] Unlike the copula verbs par excellence, *ser* and *estar*, *semblar* and *parèixer* contribute an inferential meaning, since the speaker (conceptualizer) is based on external sensory evidence or on his/her reasoning in order to infer the proposition:[5]

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3 The inferential units have different degrees of subjectivity (cf. Traugott and Dasher 2002) and some intersubjective uses (Nuyts 2001a, b), but these topics are not analyzed and discussed in this book.

4 Each verb has a specific behavior. For a detailed syntactic characterization of the presence/absence of the dative and the range of attributes licensed, see Ramos (2002: 14.1.3.1). For example, the verbs *semblar* and *parèixer* (especially the latter) present more syntactic restrictions, and sometimes a subordinated clause with the verb *estar* o *ser* 'be' is required: *Aquell home pareix que estiga content* 'That man seems to be happy'.

5 Boye (2010) argues that this case would not be evidential because it does not affect a proposition, but only a complement. According to the author, only those impersonal constructions

(1) *La   porta   **sembla/pareix** de   fusta.*
     the   door   seem.PRS.3SG of   wood
     'The door **seems** made of wood.'

(2) *Eren   fotografies   del   grup   on   tots   tres*
     be.IMPF.3PL   pictures   of-the group where all   three
     semblaven   <u>*feliços*</u>
     seem.IMPF.3PL   happy.M.PL   [*Lola*: 44; Ramos 2002: 1977]
     'They were pictures of the group where the three of them **seemed
     <u>happy</u>**.'

The second syntactic configuration is the impersonal construction *(em)
sembla/pareix (que)* 'it seems (to me) (that)', which works as an indirect eviden-
tial marker (i.e. inferential or reportive) referring to the propositional infor-
mation contained in the subordinate clause (3). This use can also have an epis-
temic semantic extension. It is worth mentioning that the construction can take
the dative clitic (*em*) or not, depending on whether the conceptualizer is explicit
or not. Additionally, this pattern can also be used as a parenthetical expression,
as in (4):

(3) ***(Em) sembla/pareix*** *que*   *arribaran*   *tard*
     me   seem.PRS.3SG   COMP   arrive.FUT.3PL late
     '**It seems (to me)** that they will be late'

(4) *Tampoc no és una gran victòria,*   ***em***   ***sembla***.
                                       me.DAT   seem.PRS.3SG
     'Anyway, it is not a great victory, **it seems to me**.'
                                       [CTILC2, *Indian Summer*, 1989]

A survey of the data provided by the *Corpus Dialectal del Català* (COD) has al-
lowed us to attest 32 tokens of the verb *semblar* and most of them correspond to
impersonal constructions.[6] In turn, most of these impersonal constructions bear
the dative clitic (22 tokens in total).[7] As for the verb *parèixer*, we have identified

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such as *(em) sembla/pareix (que)* would be evidential markers because they affect a proposi-
tion (subordinate clause). In this chapter, however, we also describe the attributive uses.

6 A periphrastic construction *semblar* + infinitive also exists, but we only found a token in the
corpus.

7 We provide examples of the evidential and modal values of the verb. These come from the
COD, a corpus with dialectal spoken language. However, we also provide examples from writ-
ten texts.

24 tokens of it, and 16 of them bear the dative clitic. The semantic behavior of both verbs is very similar as well. Let us explore it in more detail.

First, *semblar* has an inferential meaning, both as a copulative verb (5) and in impersonal constructions (6). In both cases the speaker makes a hypothesis based on some perceived evidence (specific inference) or on some information s/he knows (generic inference). In (6) for example the speaker concludes that it is a great show because s/he has knowledge of a given piece of information that allows him to make the inference: it is the first time that a retrospective exhibition of this painter takes place in France.

(5) *Més que alemanya* **sembla** *irlandesa o bretona amb els*
                           seem.PRS.3SG   Irish.F
    seus ulls blaus, la seva pell tan blanca
    'More than German she **seems** Irish or Breton, with her blue eyes, her skin so white'   [CTILC, *No passaran!*, 1985; Antolí Martínez 2017: 42]

(6) *Herbin va venir a Ceret [...] és interessant de mostrar, e... tota l'obra d'un, d'un artista que ha viscut, e, que ha viscut*
    a Ceret, i, e, bé, **em** **sembla** **que** *aquesta exposició és una*
                     me.DAT seem.PRS.3SG   COMP
    grand exposició j<u>a que és la primera vegada que es fa a França una, una</u>
    <u>*retrospectiu d'aquest e..., d'aquest pintor*</u>
    'Herbin came to Ceret [...] it is interesting to show, uh... all the work of an, of an artist who has lived, uh, who has lived in Ceret and, uh, well, **it seems to me that** this exhibition is a great show <u>because it is the first time that a retrospective exhibition of this, uh..., of this painter takes place in France</u>'   [COD Ceret]

The inferential value based on (more or less) direct evidences can also be found with *pareix que*:

(7) *cada dia nava a tres pics, a que s'animalet mamàs i quan va fer quatre dies vaig dir: "No i aqueix animal no, no mama. Més raro, tal.*
    No, i <u>*té*</u> <u>*es*</u> <u>*braguer*</u> <u>*que*</u> **pareix** **que**
            have.PRS.3SG the udder   COMP seem.PRS.3SG   COMP
    ha mamat, eh?"
    'every day I went three times to... to make the little animal nurse and after four days I said: "No, this animal is not, is not nursing. Really weird. No, and <u>it has the udder</u> in a way that **it seems that** it has nursed, uh?"'   [COD Felanitx]

(8)   *el agricultor s'ha, s'ha s'ha quedat sense faena, i el poble s'ha quedat*
      parat.
      Ara,   ***pareix***   ***que***   *ascomença un poc a fer-se indústria,*
            seem.PRS.3SG   COMP
      la construcció, tamé
      'the agricultor has, has, has become unemployed, and the village has
      remained with no dynamism. Now, **it seems that** it starts a little bit to
      emerge some industry, also the building sector'   [COD Sueca]

When the construction appears without dative clitic, the inferential value is also
elaborated by the speaker but s/he appears as not being the only person who
could infer that. The source of evidence is more external to the speaker
(Squartini 2008).[8]

The construction *em sembla/pareix que* displays another value similar to
the inferential just described. This related value indicates belief (Chafe 1986).
Moreover, the conceptualizer is encoded with the first-person dative clitic, *em*.
This use can have an inferential ground based on some piece of evidence or
reasoning, but it seems that the main function of the marker is to indicate that
the information is the result of the speaker's own conceptualization. According
to the data from the aforementioned dialect corpus, most occurrences have this
nuance. We can thus conclude that this is the core meaning of the construction:

(9)   *I después*   ***me***   ***sembla***   ***que***   *és lo dia del Divendres Sant*
                 me.DAT   seem.PRS.3SG   COMP
      fan la Processó de l'Anterro, no sé què, però bueno
      'And then **it seems to me** that it is the day of the Holy Friday when they
      do the *Processó de l'Anterro*, I don't know what, but well'   [COD Tortosa]

(10) Interviewer*: I dura tot un dia o dura més dies?*
      Informant*: No, **me***   ***pareix***   ***que***
                     me.DAT   seem.PRS.3SG   COMP
      he haurà tres... Pal sense haver-m'ho mirat, eh? Que consti.
      'Interviewer: And it last for a single day or more? Informant: No, **it
      seems to me that** there will be three... I speak without having checked
      it, uh? For the record.'   [COD Formentera]

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8 Maybe because of that, an indifferent-indirect evidential meaning can be discerned (Section
7.4.3). This construction without the dative clitic can be analysed as an intersubjective use, as a
shared responsibility (between the speaker and others interlocutors) in terms of Nuyts (2001a, b).

This use of SEEM-verbs expressing subjective opinions or beliefs is related to cognitive verbs or 'verbs of cognitive attitude' (Cappelli 2007) such as *I think*. These verbs have been considered evidential (Chafe 1986; Boye 2012), but also epistemic (Squartini 2018). They illustrate the controversial relationship between evidentiality and epistemic modality. In fact, in addition to the inference based on the speaker's reasoning they can have an epistemic semantic extension, that is to say, a derived value of uncertainty (cf. Aijmer 2009; Squartini 2018). Actually, in our data there are examples in which the boundary between the two notions is blurred and we find an overlap of inferentiality and various degrees of epistemic commitment. Be it as it may, the construction *em sembla/pareix que* becomes a marker indicating that the information comes from the speaker. This is why in some cases where the inference is completely missing, we can consider the marker as a 'subjectifier' (Nuyts 2001b; Cornillie 2007: 28). Actually, for Aijmer (2009: 85) "it is important to consider the cases where *seem* has an experiencer separately", and therefore the author claims these are constructions whose function is that of a 'subjectifier' rather than an evidential marker.

The value just described is also found in parenthetical uses of the sequence:

(11) *Pollença té uns dotze mil habitants,* **me   pareix.**
                                              me.DAT   seem.PRS.3SG
      'Pollença has about 12,000 inhabitants, **it seems to me.**' [COD Pollença]

(12) *això que et dic: "dis-me", o putser "si ho sints",* **em   semble,**
                                                            me.DAT   seem.PRS.3SG
      tamé ho diuen...
      'this that I am saying to you: "tell me", or maybe "if you hear that", **it
      seems to me**, they also say it...'   [COD Tàrrega]

Cognitive verbs or mental state verbs, such as *(em) penso* 'I think', *crec* 'I think', *suposo* 'I suppose', *trobo* 'I find', *sé* 'I know', *entenc* 'I understand', *(m')imagino* 'I imagine', *presumeixo* 'I presume', *(em) temo* 'I fear',[9] have developed a function similar to *em sembla (que)*, in any of their realizations (either as matrix verb

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9 The verb *témer* 'fear' has an inferential reading: *Em temo que no vindran* 'I am afraid they will not come' (lit. 'I fear that they will not come'). The information (*they will not come*) has been inferred by speaker on the basis of an external source or from personal reasoning. But, unlike other inferential or cognitive verbs, the speaker encodes the information as an unfortunate event in the case of *témer* (see Antolí Martínez 2015a). The speaker expresses an undesirable state of affairs; therefore, this construction could be considered an apprehensional-epistemic one (cf. Lichtenberk 1995).

introducing a subordinate clause or as a parenthetical).[10] These cognitive verbs have a value of belief (Chafe 1986), a subjectifier function (Cornillie 2007, Aijmer 2009) and encode uncertainty (low degree of epistemic commitment):[11]

(13) *Dins sa seua posició, m, no és dolent, lo que passa que*

    io   ***crec***   ***que***   *li falta madurar.*

    I   believe.PRS.1SG   COMP

    'In his/her position, uh, it is not bad, what happens is that **I think that** he/she needs to grow up'   [COD Eivissa]

(14) *Açò dependeix molt de sa zona,*   ***crec***   ***jo***

                                         believe.PRS.1SG   I

    'These depends a lot on his/her zone, **I think**'   [COD Ciutadella]

(15) *feia quaranta graus, no, i quaranta graus de calor és molt, però és que*

    jo   ***pense***   ***que****,*   *que en efecte, que no els agrada [treballar]*

    I   think.PRS.1SG   COMP

    'we had 40 degrees, no, and forty degrees of heat is a lot, but the thing is **that I think that**, that in effect they don't like it [working]'

                                                                 [COD València]

However, these verbs may have an inferential (thus, evidential) component and an internal source of evidence. According to Squartini (2008) the source of evidence can be internal or external to the speaker. In the case of both cognitive verbs and the construction *em sembla que,* the source of evidence is internal to the speaker, s/he bases on the evidences s/he has accessed. Cuenca (2015) distinguishes, on the one hand, the inferential use of *entenc que* (a deductive process) and *suposo que* (a supposition); and, on the other hand, the uncertainty use and opinion value of *crec que* and *crec (jo)*. It is worth mentioning that these verbs can function as a mitigating device. Nevertheless, in argumentative speeches *crec que* functions differently: "a marker of strong assertion [...] It indicates that the source of knowledge is the speaker, and presupposes that he or she has sufficient data to say what s/he is saying and is thus a reliable source of information" (Cuenca 2015: 379).[12] *Crec que* is, thus, a "signal used by politi-

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10 These verbs are often used in the first person singular because they are speaker-oriented. They can also appear in the plural in academic texts as a stylistic strategy to avoid a subjective view.

11 See Aijmer (1997), Nuyts (2001b), Viberg (2005), Cappelli (2007), Hennemann (2012), among others.

12 Mental state verbs have not been studied in Catalan in the context of other text typologies and registers. A throughout study considering all these variables is undoubtedly needed.

cians to assert their 'authoritative' stance (Simon-Vandenbergen 2000), thus imposing themselves as trustable sources" (Squartini 2018: 284).

Finally, *em/li sembla/pareix (que)* can also have a meaning of subjective opinion, namely the judgment that the conceptualizer (in dative) makes on the basis of his/her own value system and not of external reality (Antolí Martínez 2017). Thus, in this case there is no specific evidential basis. Next, we provide two examples, one for the attributive use (16) and one for the impersonal use (17):

(16)   **Em**   **sembla**   *indignant que es digui que al Vic hi ha màfies*
       me.DAT   seem.PRS.3SG
       'It seems outrageous **to me** that anybody says that in the Vic [sports club] there are mafias'
                               [CTILC, *El 9 Nou*, 857, 1988; Antolí Martínez 2017: 42]

(17)   *A vegades, per a algú, parlar de tradició espanta,*
       li   **sembla**   **que**   *és una cosa retrògrada.*
       him.DAT   seem.PRS.3SG   COMP
       'Sometimes, for someone, to speak about tradition is frightening, **it seems to him/her that** it is an old-fashioned thing.'
                 [CTILC, *L'escultura al temps del modernisme*, 1985; Antolí Martínez 2017: 41]

The verbs *semblar* and *parèixer* also take part in constructions with hearsay, as will be shown in Section 7.4.3.

7.3.2 Modal verbs and conjectural future

The problem of defining the boundaries between modality and evidentiality is not always easy, but it is especially difficult when dealing with inferential values, as we have just seen. This is also the case of the modal verbs such as *deure* 'must', *haver de* 'have to', *poder* 'can/may', *voler* 'want' or the conjectural (or epistemic) future. In this section we analyse these constructions in order to identify their evidential and/or modal values.

7.3.2.1 The modal verbs *haver de, deure* and *poder*
Traditionally, the non-deontic reading of modal verbs such as *deure* has been qualified as epistemic (Gavarró and Laca 2002). However, there are several studies supporting that the essential element in these constructions is actually of an evidential type (cf. Sentí 2018, forthcoming). According to Squartini (2008: 922),

even in those approaches which hold that modality and evidentiality overlap (e.g., van der Auwera and Plungian 1998) or that the basic value is epistemic (e.g., Kronning 1996; Barbet 2012), it is considered that the modal verb is related to the source of information. Actually, Squartini (2008) points out that the Italian and French modal verbs *dovere* and *devoir* as well as the conjectural future encode inferential values. On the contrary, Dendale (1994) considers *devoir* to be inferential, but the conjectural future to be epistemic (Dendale 2001). Here we assume Squartini's (2008) proposal, which distinguishes typologically three inferential values: specific inference, generic inference, and conjecture.

The specific inference is the evidential value that we find in the periphrasis *haver de* + INF, where there is external evidence allowing to draw a conclusion. The evidence is directly observed by the speaker, as shown in (18). The connection with epistemic modality is thus in terms of a stronger commitment by the speaker (19):

(18) [They are remodelling an apartment in a building. One of the neighbors says to a member of the family remodelling the apartment:] *Per lo que veig que treuen [runes], l'**han de fer** nou [el pis].*
  it.ACC=have.PRS.3PL to do.INF new
'For what I see that they [the construction workers] are taking out [rubble], they **must be doing** it [the apartment] brand new'

[HM,[13] Barcelona, 2012]

(19) *Sembla que **ha de ser** vell el duplicat cordill/cordell*
  have.PRS.3SG to be.INF
'It seems that it **must be** old, the pair *cordill/cordell*'

[Coromines, *DECat* cf. *corda*]

The meaning of the auxiliary *deure* is exclusively inferential in Standard Catalan, unlike its counterparts in other Romance languages (Sp. *deber*, Fr. *devoir*, It. *dovere*). However, in some dialects, the modal verb *deure* has also preserved the original deontic value.[14]

The evidential value of *deure* can cover all different types of inferential nuances. The specific inference is the first evidential value evolving in Old Catalan from deontic modality (see Section 7.7). In Contemporary Catalan, specific inference is still preserved. The COD offers some tokens that can fit with this value. In

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13 Attested sentences are labeled HM (*I heard by myself*), followed by an indication of the town where the native speaker comes from and the year when the utterance was witnessed.

14 Most areas of Valencian Catalan – from the south to the town of Borriol, which marks an isogloss – preserve the deontic reading (Gavarró and Laca 2002).

(20) the speaker comes to the conclusion that the time of the year when a specific vegetable grows in Formentera must be the spring, and she bases her proposition on the external evidence she obtains via direct observation: in spring there are more herbs in land. In (21) the speaker visually observes the rain, the evidence that allows him to start the inferential process: the river must be full.

(20)   *en ser sa temporada que hei ha verdura pes pes camp, també no? Que no n'hi ha sempre.* Informant*: Sí. Quan és- també…*
        Bueno, que sí, sí, també. Interviewer*: Quan és, això?* Informant*: Pues en sa primavera* ***deu   ser,*** *que és quan hei ha més herbes.*
                       must.PRS.3S   be.INF

        'since it is the season where there are vegetables in the, in the field, also, right? Because there are not vegetables all the time. Informant: Yes. When it is also… Well, yes, yes, also. Interviewer: When is that? Informant: Well, it **must be** in spring, because it is when there are more herbs'   [COD Formentera]

(21)   *[the speaker has not checked the river of the village, but it has been raining for a while]*
        Deu   anar   *ple el riu*
        must.PRS.3SG   go.INF
        'The river **must be** full'   [HM, Ondara, 2011]

In most of our corpus tokens, though, generic inference and conjecture prevail. Generic inference, based on the speaker's knowledge or reasoning, is found in several cases, such as (22), where the speaker supposes (*suposa*) that what they are building in the port are docks. Although people call them *pantalans*, which are similar to docks, the speaker infers that people mean *molls* 'docks'. Similarly, in (23) the speaker explains the fact that her grandson knows how to sing a song because she infers her knowledge from what is taught at school: they must sing this song at class. In both examples, *deure* coexists with the cognitive verb *suposar* showing the inferential process:

(22)   Interviewer*: Uns pantalans, hi fan?* Informant*: Sí, fan uns molls, que els hi diven pantalans, que*
        <u>*supòs*</u>   *que*   ***deven***   *ser molls i no pantalans, però, buenu*
        suppose.PRS.1SG   COMP   must.PRS.3PL be.INF
        'Interviewer: 'They are building some *pantalans*?' Informant: 'Yes, they are building some docks, they call them *pantalans*, which I <u>suppose</u> **must be** docks and not *pantalans*, but well'   [COD Maó]

(23)   [We are all singing a song with a little boy, and since the kid reacts by dancing the song, his grandmother says:]

*<u>Suposo</u>   que   ho   **deuen**   **cantar**   a classe.*
suppose.PRS.1SG   COMP   it.ACC   must.PRS.3PL   sing.INF
'I <u>suppose</u> they must sing it in class.'   [HM, Prats de Lluçanès, 2012]

A similar inferential value is found when *deure* conveys a calculation or numerical approximation:

(24)   Interviewer*: Quants habitants té l'illa, així...?* Informant*: Home, actualment, uns vuitanta mil* **deu**   **tenir**
                                      must.PRS.3SG   have.INF
'Interviewer: So how many inhabitants has the island...? Informant: Well, nowadays, it **must have** around 80,000'   [COD Eivissa]

The boundary between generic inference and conjecture is fuzzy. However, it is worth distinguishing the conjectural uses developed by *deure*, because they have special features.[15] First, the conjectural meaning encodes a hypothesis, which is not grounded on evidence. The speaker's own reasoning is reinforced. Therefore, the source of evidence is internal to the speaker and the state of affairs is less reliable. In many cases we even observe a greater connection with a very low degree of epistemic commitment, a value of uncertainty:[16]

(25)   *són turistes de temporada que tenen una casa aquí [...] Ells mateixos... s'ho fan i haha! vénen o no vénen o com vuiguen.*
*I n'hi **deu ver** molts que també ho lloguen, <u>possiblement</u>.*
'they are season tourists who own a house here [...] They do everything by themselves and, haha! they come or not come or how they want. And there **must be** a lot of them who are also renting it, <u>possibly</u>.'

[COD Formentera]

In (25) there is no external evidence allowing the speaker to start an inferential process. It is simply a hypothesis or conjecture. In such cases we should ask which is the main function of *deure*: an inferential marker or an epistemic

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15 Crucially, the conjectural values are not attested in Old Catalan (Sentí 2017). Then, from a diachronic point of view, it is important to distinguish the three aforementioned inferential meanings.

16 Some studies have linked conjecture with uncertainty, and specific and generic inference with certainty (cf. Dendale 1994; Cornillie 2007). However, others hold that "the preferential connections between different kinds of inferential processes and degrees of epistemic commitment should not be represented as categorial" (Squartini 2008: 926; Cornillie 2009).

marker of uncertainty. In both cases, it is a conjecture. This indicates a difference between the Catalan modal verb *deure* with respect of its French and Italian counterparts (*devoir*, *dovere*), which lack this value. Squartini (2008) argues that in It. *dovere* and Fr. *devoir* do not have a conjectural value, only an inferential one (specific and generic inference). He grounds his claim on (a) the fact that these verbs cannot co-occur with epistemic adverbs such as *possibly*, as shown in (26); and (b) that *dovere/devoir* do not work when the inference is not based on external evidence (specific inference) or the speaker's knowledge of the world (generic inference), as in (27):

(26)   Italian   [Squartini 2008: 927]

[Suonano alla porta]   *??Forse*   **deve**   **essere**   *il postino.*
                             perhaps   must.PRS.3SG   be.INF
'[The bell rings] *??*<u>Perhaps</u> it **must be** the postman'

(27)   Italian   [Squartini 2008: 924]

[Suonano alla porta] ??Non aspettava nessuno;
deve   **essere**   *Gianni.*
must.PRS.3SG   be.INF
[The bell rings] *??*I was not expecting anybody. It **must be** Gianni.

On the contrary, in Catalan the counterpart of (27) is well-formed (28). And the verb *deure* can combine with several epistemic adverbs, as in (25) and (29)–(33):

(28)   Catalan
[Someone rings the bell] No esperava ningú;
deu   **ser**   *la meua veïna.*
must.PRS.3SG   be.INF
'I was not waiting for anyone; it **must be** my neighbor.'

(29)   *<u>Possiblement</u>*   **deu**   **trobar***-se entre terres ben boniques i fèrtils.*
possibly   must.PRS.3SG   find.INF=REFL
'It **must** <u>possibly</u> **be** found among beautiful and fertile lands'
                              [CIVAL, *Toponímia rural de l'Alcúdia*, p. 730, 1997]

(30)   *–<u>Segurament</u>,*   **deu**   **recordar** *vosté [...] les primeres eufòries*
probably   must.PRS.3SG   remember.INF
de la transició
'You **must** <u>probably</u> **remember** [...] the first euphorias of the transition'
                                           [CIVAL, *L'enviat*, 1997]

(31)   *<u>Potser</u>* **devia**   **tindre**   *la seua edat.*
maybe   must.IMPF.3SG   have.INF

'<u>Maybe</u> he **must have been** his age.'   [CIVAL, *Efectes secundaris*, 2011]

(32) *També **deu**   sortir   més barato, <u>a lo millor</u>.*
         must.PRS.3SG   turn.out.INF
      'Also, it **must be** cheaper, <u>maybe</u>.'   [COD Ciutadella][17]

(33) *Bueno, **deu**   ser tota la sona de Segarra, <u>poder</u>, que ngantxe, no?*
         must.PRS.3SG be.INF
      'Well, it **must be** all the area of Segarra, <u>maybe</u>, which captivates,
      mustn't it?'   [COD Tàrrega]

In some of these cases, the degree of certainty is really low, and an epistemic
possibility meaning could be seen. This is why we can find *deure* in interroga-
tive clauses where the modal marker simply encodes uncertainty or subjectively
marks the proposition in order to indicate an almost non-existent commitment.
The verb often co-occurs with expressions of epistemic uncertainty, such as *no
sé* 'I don't know':

(34) *O gent amb duros, amb dobbers [...] que viven de rendes, i altres tipos de
      negocis <u>no</u>   <u>ho</u>   <u>sé</u>,*
         no   it.ACC   know.PRS.1SG

      *m <u>no</u> sé   ana què se **deuen**   dedicar,*
         no   know.PRS.1SG   to   what REFL must.PRS.3PL   devote.INF
      perquè no estic massa en lo tema, immobiliari, sí.
      'Or people with money, with money [...] who lead a life of leisure, and
      other kind of businesses <u>I don't know</u> uh <u>I don't know</u> what they **must
      do** for a living, because I am not very much into the real state thing, yes.'
                                                [COD Pollença]

(35) *¿Què **deu**   ser   això? Pujo a poc a poc*
         must.PRS.3SG   be.INF
      'What **must** that **be**? I go up little by little'   [*Incerta Glòria*, 1969]

Additionally, two more features of the verb *deure* signal an uncertainty meaning
and zero degree of commitment: a fossilized morphological form and a new use
in future tense. Firstly, *deure* preserves a fossilized ancient morphological form
in the past simple in some Catalan Valencian varieties,[18] a tense which has been

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17 This utterance is said by the companion of the informant who is being interviewed for the
corpus.
18 In Standard Catalan, in order to build a past form out of *deure*, the imperfect *devia*
(must.IMPF.3SG) must be resorted to: *devia fer* (must.IMPF.3SG do.INF). This is because the simple

lost and replaced by a periphrastic past. It seems that this preserved past simple form of *deure* has specialized in a value of uncertainty. As in the previous cases, it also appears in interrogative clauses and can combine with epistemic expressions:

(36) *La caseta eixa qui la* ***degue*** ***fer****?*
must.PST.3SG build.INF
'Who **must have built** that house?' [HM, Ondara, 2017]

(37) *[The speaker refers to a new key and the fact of putting it in the key holder].* *T'ho* ***degue*** ***posar*** *jo [la clau al clauer].*
must.PST.1SG put.INF
És que no me'n recorde.
'I **must have put** it there for you. The thing is that I don't remember.'
[HM, Ondara, 2016]

(38) *[At the university there is a statue of Minerve. The speaker, who is aware of that, talks about a friend who probably saw the statue] Va vore l'estàtua pero no es* ***dega*** ***fixar***
must.PST.3SG pay.attention.INF
qui era.
'She saw the statue but she **probably** did not pay attention to who it was.' [HM, Els Poblets, 2016]

(39) *Veges el retor que* ***deguera*** ***dir****.*
must.PST.3SG say.INF
'Imagine what the priest **could have said**.' [HM, Ondara, 2016]

Secondly, *deure* has developed another new use, in the future, absent in other Romance languages. We have documented it in varieties of Central Catalan. It

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past tense (*cantà* sing.PST.3SG) has disappeared from the spoken language in most varieties, being replaced by the periphrastic past, formed with the auxiliary *anar* ('go') followed by an infinitive: *va cantar* (sing.PST.3SG). Since *deure* cannot enter this periphrastic construction (**va deure fer*), the imperfective is used instead: *devia fer* (must.IMPF.3SG do.INF). An alternative mechanism, the above-mentioned forms *degue/dega/deguera*, is found in some southern spoken Valencian varieties (Marina Alta, Marina Baixa) (Beltran 2011: 87; Beltran and Herrero 2011: 87; GIEC: §24.8.4.1). These forms *degue/dega/deguera* are the result of a grammaticalization of the simple past form *degué* 'must.PST.3SG'. Crucially, these varieties do not use the past simple any more in any other context or with any other verb in the spoken language –this situation contrasts with central Valencian, which are exceptional in having maintained the past simple tense for all verbs in the spoken language. To sum up, in the mentioned varieties the forms *degue/dega/deguera* seem to have specialized in a conjectural meaning.

marks uncertainty and belief regarding a proposition anchored in some other time than the moment of utterance.[19] We can see an inferential component in the background, but it seems that the epistemic component is the central element:

(40) *Una mica de pa bé ens en* ***deuran*** ***portar.***
must.FUT.3PL   bring.INF
'Some bread, **I suppose they will bring** that for us'
[HM, Prats de Lluçanès, 2016]

(41) −*No cal que agafes les ulleres de sol, oi?* −*Sortirà poc [el sol],*
però ***deurà*** ***sortir,*** *no?*
must.FUT.3SG   come.out.INF
[Packing to travel to England] 'You don't need your sunglasses, don't you? –There won't come out much, but **I suppose it will come out**, won't it?' [HM, Barcelona, 2017]

(42) -*Sí, es nota. Ara* ***deurà*** ***anar*** *més de pressa, oi?*
must.FUT.3SG   go.INF
'Yes, I can feel it. Now [the pregnancy belly] **I suppose it will grow quicker**, won't it?' [*Mecanoscrit del segon origen*, 1974]

In short, *deure* has an inferential use that comprises the three types (Squartini 2008). We have even seen that it has epistemic extensions of uncertainty or uses of doubt in past, future and interrogative sentences. Its uses are therefore quite different from their Romance counterparts.

From a pragmatic and functional perspective, González (2011: 161) argues that *deure* is not exactly an inferential marker, but its "core meaning is […] epistemic rather than purely evidential". Unlike the construction *es veu que*, the author points out that *deure* assesses facts because it is based either on the speaker's reasoning itself or on some perceptual (i.e. direct) evidence. In addition, she considers the main function of *deure* is to "judge the propositional content of the action or events being told from a subjective stance (i.e. inside the speaker's deictic sphere of action) (González 2011: 169).

On the contrary, Cuenca (2015) considers that "*deure* implies an inferential process of supposing something, and, thus, evidentiality is somehow present in its meaning". It may be useful to consider *deure* as an evidential marker, since, together with the conjectural examples described in this section, it can also appear with markers of high epistemic commitment:

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19 In Romance, there are no grammatical items encoding degrees of certainty in the future. This use of *deure* is an attempt to express this uncertainty in the future.

(43)   *Io encara no hei vist es cartells però <u>segur</u>   que hi ha molts de grups,*
                                                    for.sure

deu   **haver-hi**,   *actividats deu haver-hi conferencis,*
must.PRS.3SG be.INF=there

<u>*com sempre*</u>.
as always

'I have not seen the posters yet, but <u>surely</u> there are a lot of bands, there
must be activities, there must be conferences, <u>as always</u>'

[COD Formentera]

(44)   [The speaker infers this information because he knows that Mar's father
        is a photograher]

Mar **deu**   **tindre**   *'n*   <u>*segur*</u>   *[de fotografies]*
        must.PRS.3SG have.INF   PART   for.sure

'Mar **must have** some [photographies] <u>for sure</u>'   [HM, Ondara, 2016]

Finally, the periphrasis with *poder* is a very different case: it expresses epistem-
ic possibility. It may have an evidential inference derived from the context
(implicature) (Cuenca 2015: 375), but typically *poder* doesn't rely on any infer-
ence (Cornillie 2007; Sentí 2018). The verb *poder* generally has a value of hy-
pothesis and, crucially, can also refer to a state of affairs in the future:[20]

(45)   *Io crec que encara* **poden**   **caure**   *io crec que segur tres*
                                    can.PRS.3PL   fall.INF

o quatre medalles.

'I think that three or four medals, I think that three or four medals surely
can still **go** to us.'   [COD Eivissa]

7.3.2.2 The conjectural future and conditional

The future tense can be used as an epistemic or evidential marker, and the same
applies for the conditional, which refers to a state of affairs in the past:

(46)   *Quina cara fa.* **Estarà**   *cansat.*
                                    be.FUT.1SG

'What an appearance he has. He **will be** exhausted'

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20 In parliamentary debate, *poder* is mostly a device to create empathy and mitigate asser-
tions (Funtes 2010, referred to in Cuenca 2015).

(47) *Quina cara feia.* ***Estaria*** *cansat.*
                     be.COND.1SG
      'What an appearance he had. He **would be** exhausted'

This employment has traditionally been banned from Standard Catalan, which has privileged instead the periphrasis with *deure* (see Pérez Saldanya 2002: 2637).[21] Unlike other Romance languages, the conjectural future and conditional have a quite restricted use in most Catalan dialects.[22] In any case, it is also documented in written texts in Standard Catalan, especially when inflected in the future perfect (Pérez Saldanya 2002: 2640), as in (48). We have found this use in the oral corpus across different dialects (49)–(50):

(48) *Potser*   *t'*   ***haurà***   *estranyat*   *que no hagi dit res*
      maybe   you.DAT   have.FUT.3SG surprised
      sobre la mort del Borbó
      'You may have been surprised that I didn't say anything about the
      Borbó's death.'   [*Estremida*, Pérez Saldanya 2002: 2640]

(49) *Interviewer: Quants anys fa que ets aquí? Informant:* ***Farà***   *vuit anys.*
                                            turn.FUT.3SG
      'Interviewer: For how long have you been here? Informant: It **will be**
      eight years.'   [COD Barcelona]

(50) *supose que no ho* ***haurà***   ***implantat***   *la gent de Sueca*
                        have.FUT.3SG   introduced
      'I suppose that the people from Sueca will not have introduced that'
                                                  [COD Sueca]

Although an in-depth analysis of the relationship between the future and the modal verb *deure* would undoubtedly be insightful, we can confirm some tendencies. In the first place, we observe that the future expresses especially the conjecture value as well as calculation inferences, as we saw in (49) and (50). It can co-occur with epistemic markers showing several degrees of commitment:

(51) *Toquen a la porta.* <u>*Segurament*</u> ***serà***   *ella.*
                         probably   be.FUT.3SG
      'They are knocking at the door. It **will** <u>probably</u> **be** her.'
                                         [CIVAL, *La iaia Tona*, 2010]

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21 Although prescriptive grammars rejected this use arguing that it is a Spanish interference, Martines (2017a) convincingly proves that the conjectural future raised from the 13th century on.
22 Valencian Catalan is the dialect that uses the most the conjectural future and conditional.

(52)   *MIQUEL: Ningú no sap on és Rafel? Ja hauria de ser ací.*
        FRANCESC: <u>*Potser*</u>   *no*   **haurà**   **vist**   *Maria.*
                    maybe   no   have.FUT.3SG   seen
        MIQUEL: O <u>*potser*</u>   **serà**   *ja presoner.*
                    maybe   be.FUT.3SG
        'MIQUEL: Nobody knows where Rafel is? He should be already here.
        FRANCESC: <u>Maybe</u> he **will not have seen** Maria. MIQUEL: Or <u>maybe</u> he
        will be already a priosoner.'   [CIVAL, *Dansa del vetlatori*, p. 74, 1978]

Therefore, in many cases both *deure* and the future encode a similar conjectural value (or a hypothesis). What teases them apart is that the future lacks the specific inference value, instead it requires a clear external source for the inference. In addition, in most cases the conjectural future is more linked to the epistemic value of uncertainty. Maybe because of that it has also developed a concessive value:

(53)   <u>*Segurament*</u>   **serà**   *una bona xica, no dic que no, but no m'agrada*
        probably   be.FUT.3SG
        gens el que heu fet
        'She will <u>probably</u> be a good girl, I don't say she isn't, but I don't like at
        all what you have done'   [CIVAL, *Sabor de crim*, 2003]

7.3.2.3 The modal verb *voler*

In addition to a value of desire or intention, *voler* 'want' (+ INF) can also have an inferential value. However, this meaning arises only with fixed constructions in which *voler* combines with one of the following three infinitives:[23] *ploure* 'rain', *caure* 'fall down' i *florir* 'bloom':[24]

(54)   *Bon dia! Un dia un poc apagadet de llum... pareix que*
        vol   **ploure!**[25]
        want.PRS.3SG   rain.INF
        'Good morning! A cloudy day... it seems it **wants to rain**'

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23 In stylistic uses the periphrasis can be attested with other infinitives (Gavarró and Laca 2002: 2695).

24 In the COD the modal verb *voler* has not been attested, which means that it is a restricted construction. Because of that we have undertaken a search in the Internet.

25 https://www.facebook.com/casaperito/posts/1515807575096805.

(55) *sa roca que pareix que* **vol** **caure**[26]
                                   want.PRS.3SG   fall.INF
     'The rock seems **it wants to fall**'

(56) *Les patateres creixen i sembla que també* **volen** **florir**[27]
                                           want.PRS.3PL bloom.INF
     'The potato plants grow and it seems that they also **want to bloom**'

(57) *A hores d'ara portem ja 10 mm acumulats de precipitació i sembla que*
     vol **continuar** **plovent** *unes quantes hores més*
     want.PRS.3SG   continue.INF   rain.GER
     'By now we already have accumulated 10 mm of rainfall and, seemingly,
     it **wants to keep on raining** for a few more hours'
                                                           [Antolí Martínez 2015b: 27]

The inferential evidential value of *voler* can have a background close to the notion of imminence, since this is its diachronic origin. However, especially in the case of *ploure* 'rain', it seems that the most important value is an inferential one. Even so, the inferential component can also be provided by the inferential markers *sembla que/pareix que* (SEEM-verbs) which *voler* often combines with, as in (54)–(57). Crucially, in example (57) the notion of imminence is cancelled because the verb *continuar* 'continue' underlines the duration of the event. Therefore, it is clear that the only semantic component is evidential (Antolí Martínez 2015b). The speaker infers the state of affairs (*ploure, caure* or *florir*) from the clues s/he perceives visually (in the meteorological environment, in the state of the wall, in the plants). Thus, the speaker's commitment is not emphasized, but anyone could infer that state of affairs from the external evidence (meteorological conditions, for example).

7.3.2.4 Conclusion: the modal verbs

To sum up, Catalan modal verbs display different uses, related to evidentiality and the speaker's attitude: a) *haver de* only expresses specific inference; b) *deure* can convey different inferential values, although it mainly expresses generic inference and hypotheses, and in some cases has become a marker of doubt; c) *poder* is purely epistemic; d) the epistemic future indicates conjecture and can combine with several degrees of certainty; and e) *voler* has really restricted inferential uses.

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26 https://tracaladadepassos.wordpress.com/category/escalada/page/4/.
27 http://pugemalhort.blogspot.com/2011/05/.

7.3.3 Inferential sentence adverbs and adjectives

Sentence adverbs in Catalan have been poorly studied from a semantic perspective with regard to their modal and evidential values.[28] All in all, González (2005) and Cuenca (2015) mention some uses of modal adverbs.

The adverbs *evidentment* 'evidently' and *òbviament* 'obviously' are inferential evidentials. They are considered inductive markers by both González (2005) and Cuenca (2015), this is to say, they indicate an inference process on the part of the speaker "that leads from the data to a conclusion" (Cuenca 2015: 371). Let us show *evidentment*, that appears four times in our corpus (COD). In (58) the speaker is allowed to make an inference saying that "*Barcelona has the same problem that Mallorca has when it comes to big shopping malls*" based on a piece of knowledge "*the fact that Barcelona proportionally has more big shopping malls than Mallorca*":

(58)   *Mallorca és molt petit, per absorbir tanta gran superfície, però, per*
       exemple, es comerciant de Barcelona també… supòs
       *que aquest problema e, el té, en un altre nivell, o sigui, sí, e, **evidentment**,*
       o sigui he ha, eh, Barcelona té més gent prò
       també he ha més grans superfícies, o sigui si nam a fer sa proporció.
       'Mallorca is really small to absorve so many big-box stores, but, for example, a shopkeeper in Barcelona too… I suppose that this problem, uh, he also has it, on another level, that is to say, yes, uh, **evidently**, that is to say there are, uh, Barcelona has more people, but also there are more big-box stores, that is to say, if we see it proportionally.'

                                                                            [COD Palma]

In addition, the adverb *evidentment* expresses a kind of inference that can be shared by other interlocutors, because the link between the common knowledge and the inferred state of affairs is well-known. One can also observe a link with epistemicity, since there is a derived value of certainty, assumption or non-controversy. Other adverbs that can have evidential semantic or pragmatic meanings are *previsiblement* 'predictably', *aparentment* 'apparently', *visiblement* 'visibly', *suposadament* 'supposedly', *presumiblement* 'presumably', *naturalment* 'naturally', *lògicament* 'logically', but they are more frequent in formal registers.[29] One should also mention the expressions *pel que es veu* 'it looks like' and *segons sembla* 'as it seems', formed by verbs *veure* 'see' and *semblar* 'seem'.

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28 For a syntactic approach to adverbs see López and Morant (2002) and GIEC: §20.8.1.
29 Interestingly, no token of these adverbs has been attested in COD. They are probably not very frequent adverbs in colloquial registers.

Other modal adverbs are purely epistemic, such as *segurament* 'surely', *probablement* 'probably', *possiblement* 'possibly', *potser* or *tal vegada/volta* 'maybe'; this is to say, they convey different degrees of certainty (López and Morant 2002: 1841; Cuenca 2015). Unlike evidential adverbs, these markers express the speaker's point of view, his/her personal assessment of the situation:

(59) *els moldes no eren les peces importants [...], ere l'obra que eixia d'ells. I*
      moltes se, se van tirar. N'hi han alguns carrers
      *del poble que **probablement** el dia que se fagen algunes obres*
      apareixeran es moldes per allí, trencats clar
      'the moulds weren't the important pieces, it was the pieces of work that
      came out of them. And a lot of them were thrown out. There are some
      streets in the village where, **probably**, if some day construction works
      are done, the moulds will appear over there, broken, of course'

                                                                    [COD L'Alcora]

(60) *N'hi haveva, **potser** n'hi haveva dotze o catorze quadros.*
      'There were, **maybe** there were twelve or fourteen squares [of dancers]'

                                                                    [COD Benavarri]

(61) *Idò i si t'hi mires aquí, davant sa Ford, **tal vegada** són cinc pisos*
      'Then if you look here, in front of the Ford, **perhaps** there are five floors'

                                                                    [COD Ciutadella]

However, they can contextually have an inferential value of supposition[30] (Cuenca 2015: 375–376).[31] Actually, these modal markers do not only downgrade the speaker's epistemic commitment with the truth, but they also encode a hypothesis, grounded on the speaker's knowledge, as in (59), or on his/her own reasoning, as in (60) and (61). In the latter two cases the speakers propose an estimate. We could thus assume that this is a value of conjecture (Squartini 2008), similar to the meanings encoded by *deure* (i.e. generic inference and conjecture), but the adverbs indicate even less reliability.

Other epistemic modal adverbs that could have pragmatic evidential values are *certament* 'certainly', *vertaderament* 'really', *indubtablement* 'undoubtedly',

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30 González (2005) considers *probablement* and *presumiblement* as "markers of deduction, related to different degrees of reliability", following Chafe (1986).
31 In addition, in a dialogic domain, these adverbs rather encode "mitigated assertion as an argumentative mechanism to create empathy and legitimate what is being said" (Cuenca 2015: 376).

naturalment 'naturally', *segurament* 'surely', *per ventura* 'perhaps', *acàs* 'perhaps'.[32]

Evidential and modal adverbs have corresponding adjectives: *evident* 'evident', *obvi* 'obvious', *previsible* 'predictable', *natural* 'natural', *indubtable* 'indubitable', *probable* 'probable', *possible* 'possible', *segur* 'sure', *clar* 'obvious', *cert* 'true', *veritat* 'true', etc. (see González 2014, 2015; Cuenca and Marín 2012; Cuenca 2015). Their values are equivalents to those of the adverbs. For example, *evident* indicates an inferential value, an assumption:

(62)   *Hi ha un altre apriorisme que diu que "el sector públic sempre ho fa tot*
         *millor". I també és **evident** que hi ha molts exemples que servirien per a*
         demostrar que això no és sempre així .
         'There is another a priori assumption that says that "the public sector
         always does everything better." It is also **evident** that many examples
         could serve to demonstrate that this is not always the case.'

                                                    [DI, Junqueras: 18; Cuenca 2015: 372]

It is worth mentioning that, unlike certain evidential adverbs and adjectives connected with epistemic modality, there are others, such as *cert* 'true', which are purely epistemic (Cuenca 2015: 373). The pragmatic marker *és clar* is described in Section 7.6.2.

7.4 Reportive units

Reportativity or hearsay "indicate that the speaker of the actual utterance bases his/her assertion on previous utterances, usually made by another person (other persons) but not necessarily so" (Wiemer 2010: 59). Usually this implies that the reported information comes from an anonymous author (Aikhenvald 2004). Folklore can also be identified as a source (Willett 1988). This evidential function should be distinguished from reported, i.e. the reported information comes from a recognizable second hand and the speaker typically has witnessed the original speech (reported speech) (Wiemer 2010: 100). We devote the present section to markers derived from the verb *dir* 'say' (*diu que* lit. 'say.PRS.3SG that', *diuen que* lit. 'say.PRS.3PL that'...) (Section 7.4.1), the verb *veure* 'see' (*es veu que*

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32 In the colloquial language, we also find markers that come from Spanish: *quissà, a lo millor, igual*, all of them meaning 'maybe'.

lit. 'SE see.PRS.3SG that')[33] (Section 7.4.2) and some semantic extensions of *sembla que* (lit. 'seem.PRS.3SG that') and *resulta que* (lit. 'turn.out.PRS.3SG that') encoding reportive meanings (Section 7.4.3, Section 7.4.4). Finally, the reportive conditional is analyzed (Section 7.4.5).

7.4.1 Markers derived from SAY-verbs

The verb *dir* has generated several evidential markers in Romance languages (cf. Rosales Sequeiros 2000; Olbertz 2005; Pietrandrea 2007; Cruschina and Remberger 2008; Wiemer 2010; Cruschina 2013; Alcázar 2014, 2018). In Catalan we find several constructions *es diu que*, *diuen que* and impersonal *diu que*.

The verb *dir* has a fundamental function for reported speech, where the speaker simply reproduces the discourse of the source in direct or indirect speech:

(63)   *Enric ve i **diu**: "Ah! Això és com amb, si as mig de sa plaça Catalunya a les sis de s'horabaixa no hi hagués ningú", i, efectivament, és així, prò és qui tothom és a Prica.*
'Enric comes and **says**: "Ah! This is like with, as if there was no body in the middle of the Catalunya square at 6 pm", and, indeed, it is like that, but the thing is that everbody is at Prica.   [Dialcat, Mallorca]

In addition, the verb *dir* also participates in some impersonal constructions with a reportive function: *diuen (que)* 'they say that' and *es diu que* 'it is said that'. In these partially grammaticalized constructions there is an unspecific subject,[34] the verb *dir* has reduced its morphological flexibility (it appears only in the 3rd person, singular or plural, of the present tense), and a subordinate clause is selected where propositional information is provided, especially in the case of *es diu que*. Semantically, these constructions have fixed a reportive meaning (64), or a meaning of folklore (65):

(64)   ***Diuen   que** no, que hei ha més poca gent, i no ho sé com que jo és una*
say.PRS.3PL COMP
co- és un ofici que no el visc.
'**They say that** no, that there are less people, and I don't know because it is a thing that I... a job that I haven't experienced'   [COD Ciutadella]

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33 The *se* particle can convey several meanings. When it is not a reflexive, it has been glossed as MM. This is the case of the evidential markers *es veu que*, *es diu que* or *es coneix que*.

34 See Bel (2002: 1094–1095) for the syntactic behavior of such a subject.

(65) **Es   diu   que**   *el dia de l'Ascensió, a migjorn, les fulles de les*
      MM   say.PRS.3SG COMP
      oliveres s'encreuellen
      '**It is said that** the day of the Ascension, at midday, the leaves of the
      olive trees form a cross'

                    [*CIVAL,* Coses típiques de la Marina, la meua comarca, *1912*]

In the COD we also find a parenthetical use of the construction *diuen*, both in final position without *que* (66), or in the middle of the sentence, interrupting the discourse (67).[35]

(66) *Es diumenges sí que hei ha molta gent. En quant a turisme, no n'hi ha tant*
      com altres anys,   **diuen**.
                            say.PRS.3PL
      'On Sundays there are lots of people, indeed. As for the tourism, there is
      not as much as in previous years, **they say**'   [COD Ciutadella]

(67) *Va n'hi haver una pesta de les famoses a Morella i se va pensar de pujar la*
      Mare de Déu en romeria a veure si aixina
      aconseguien que passara la peste i va passar, **diuen**   **que** *un milacre*
                                                    say.PRS.3PL COMP
      'There was famous pestilence in Morella and people thought about take
      the Virgin Mary up on a pilgrimage in order to see whether this way they
      got for the pestilence to be over, and it was over, **they say that** a miracle'
                                                                [COD Morella]

Finally, the impersonal construction *diu que* is a marker of *hearsay* (Antolí Martínez and Sentí 2020). Unlike (63), in the following examples there is no reported speech: the main function of *dir* is encoding an original proposition that belongs to another speaker. The construction *diu que* is subject to more syntactic restrictions since it can only appear in third person singular (68). It can also be dislocated and employed as parenthetical (70). It can also indicate folklore (71).[36] This evidential marker is thus more grammaticalized. *Diu que* is more common in colloquial texts than in formal ones, and especially in Valencian Catalan, as the data from Valencian corpora (Parlars, Museu de la Paraula, CIVAL) show.

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35 In this example, the parenthetic construction *diuen que* is in the middle of the sentence. Seemingly *diuen que* assesses only the direct object ('un miracle').

36 Related to this use, *diu que* is employed as a stock phrase to introduce a narrative or tale (Antolí Martínez 2015a: 397–400).

(68)   *-Bolufer ja ha acabat? -Allò*   ***diu***   ***que***   *està molt vell.*
                                        say.PRS.3SG   COMP
       '-Is Bolufer closed?' -That, it is said to be very old.'   [*Parlars*, Benissa]

(69)   *Quan era xicoteta sí, vaig estar molt mala de tos ferina, molt.*
       Ací   ***diu***   ***que***   *no s'havia conegut ninguna tos ferina com la meua.*
               say.PRS.3SG   COMP
       'When I was a little girl, yes, I was really ill with whooping cough, really
       ill. Here it is said that a whooping cough worse than mine had never
       been known.'   [Museu de la Paraula, Alfara d'Algímia]

(70)   *l'agüelo va morir de càncer o no sé què, fumae molt*   ***diu***   ***que***.
                                                               say.PRS.3SG   COMP
       'the grandfather died of cancer or I don't know what, he used to smoke a
       lot, they say'   [Museu de la Paraula, Vallibona]

(71)   *Per què santa Marta porta poalet? Perquè*   ***diu***   ***que***
                                                     say.PRS.3SG   COMP
       arreplegava les bales dels corsaris amb el seu poalet
       'Why does Saint Marta carry a washbowl? Because **it is said that** she
       used to pick up the pirate's bullets with it.'   [Antolí Martínez 2015a: 389]

This reportive marker does not have an associated epistemic pragmatic value in
most of the corpus cases examined. The speaker does not usually express his
point of view about the proposition, but s/he uses *diu que* to transmit hearsay
instead. Even so, there are some cases in which the dubitative or epistemic val-
ue may be contextually inferred from the reportive value. In such cases, alt-
hough *diu que* keeps the evidential value, the uncertainty becomes reinforced,
since the speaker questions the truth of the reported information, as in (72). The
speaker adopts this strategy to distance himself from the state of affairs, to
downgrade his commitment to the information.[37]

(72)   *– Se'n recorda quants treballadors n'hi havien en la seua època?*
       *– Pues en la meua època **diu que** n'hi havien uns sis-cents.*
       – Molts treballadors...
       – Jo no me'n recorde, jo tenia el [número] mil nou-cents vint-i-sis quan vaig
       entrar a Payá
       '– Do you remember how many workers there were when you were there?

---

37 The marker *diu que* can also indicate a mirative value. However, no examples have been
attested in the corpora (cf. Antolí Martínez and Sentí 2020).

– Well, when I was there, **they say that** there were about six hundred.
– Many workers...
– <u>I don't remember</u>, I had number one thousand nine-hundred and twenty-six when I joined Payá']   [*Museu de la Paraula, Ibi*]

7.4.2 Markers derived from SEE-verbs

Veure is a verb of perception which encodes several evidential values and be part of different constructions (*es veu que, pel que es veu, segons es veu*, etc.). In addition to direct evidentiality and a derived inferential value (see Section 7.6.1), this verb has generated the grammaticalized impersonal construction *es veu que* 'it seems that' (lit. 'it is seen that'), which has become a very productive indirect evidential marker, especially in the colloquial register.[38]

Although this pattern has not been thoroughly studied in Catalan, González (2011) provides a good starting point. The author argues that *es veu que* has a reportive function: "the marker [*es veu que*] becomes a perfect tool to be used when telling a vicarious experience, that is, somebody else's story" (González 2011: 156):

(73)   *i després* **es**   **veu**   **que** *aquests nois vivien a Castelldefels.*
               MM   see.PRS.3SG   COMP
     i i ella va marxar.
     'and afterwards it seems that these boys lived in Castelldefels. And and she left.'   [González 2011: 156]

Data from the COD support this claim, although with some nuances. Indeed, *es veu que* indicates that the speaker acquires the propositional information in an indirect way. In most cases, the information comes from another person (other persons), as in the following example:

(74)   *E*   **se**   **veu**   **que** *hi ha molt d'interessos entre u batle de*
           MM   see.PRS.3SG   COMP
     l'Alguer i un senyor que està per aquí
     'And **it seems that** there are a lot of interests among the Mayor of Alghero and a man that is around here.'   [COD Pollença]

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38 The Spanish counterpart *se ve que* is also quite productive in colloquial Spanish spoken across the Spanish spoken in Catalan-speaking regions, especially in the Valencian area (Albelda 2016).

Unambiguous examples of reportive evidentiality can be found. For example, in (75) the speaker explicitly says *jo vaig sentir nomenar* 'I heard people talk about that':

(75) Interviewer*: Vosté en va vorer algun de maqui?* Informant*: -No, no, nxt!, nxt!. No,   jo   <u>vaig sentir</u>   nomenar *però jo, ni sabia que eren maquis, ni*
           I   hear.PST.1SG   talk.INF
sabia res de res. Però, i a lo millor, a lo millor **degueren   estar**   *per*
                                              must.PST.3PL   be.INF
aquí pel poble alguna nit, perquè n'hi havien en cantidad i
es   veu   que   *voltaen per tot arreu*
MM   see.PRS.3SG   COMP
'Interviewer: Did you ever see a *maqui*?' 'Informant: -No, no, nxt!, nxt!. No, <u>I heard people talk about that</u> but I did not even know who the *maquis* were, I didn't know anything at all. But, maybe, maybe they were around here, in the village, some night, because there were many of them and **it seems that** they were everywhere'   [*Museu de la Paraula*]

However, in (76) it is not obvious whether we are facing an inference or reportive evidentiality. In fact, the construction *es veu que* can also have inferential or indifferent-indirect evidential values, as will be explained in Section 7.5.

(76) *En el moment que van [=vam] aplegar a Perú, pues el... mosatros mos esperàvem que en principi el... la capital fóra un... poquet més bonica, però la veritat és que mos van trobar en un... ambient, molt... de molta misèria. Els, els natius d'allí,* **es veu   que** *la ciutat e... no havia donat els*
                         MM see.PRS.3SG   COMP
serveis que... que deurien de... de rebre es habitants d'allí, i <u>es notava que era una ciutat que estava molt... molt mal cuidada</u>.
'When we arrived in Perú, well..., we expected that in the beginning the..., the capital would be a bit more beautiful, but the truth is that we found instead an atmosphere of great poverty. The, the native people there, **seemingly**, the city had not given them the services that... that they should have received, <u>and one could feel that it was a city which was not very... very bad entertained</u>'   [COD Alacant]

Unlike modal verbs, in the construction *es veu que* there is no trace of the speaker's epistemic commitment to the truth of the proposition. That is to say, it

is a construction whose core value is clearly evidential. As González (2011)[39] points out, the speaker does not interpret or evaluate the fact, but marks that s/he acquires the information from an external source. As a side effect, this is a way of not taking responsibility with respect to what is said.

7.4.3 Markers derived from SEEM-verbs

As shown in Section 7.3.1, the verbs *semblar* and *parèixer* encode especially inferential values as well as values of uncertainty, but they can also encode a reportive meaning, especially in the case of the impersonal construction *sembla/pareix que*, with no dative clitic, and the construction *sembla ser que* '(it) seems to be that'.

The construction *sembla/pareix que* can signal hearsay. The COD does not offer many clear instances of that, but they can easily be found in written texts. For example, in (77) the context indicates the source of the propositional information: it comes from the person with whom the speaker talked in a previous conversation. It is important to highlight that, unlike the inferential values in the construction *em sembla que* (Section 7.3.1), the reportive value found here is rather less related to the speaker's evaluation and no expression of uncertainty is found:

(77) <u>*M'explica que*</u> *acaba d'eixir d'una relació llarga i* **sembla** **que**
                                                            seem.PRS.3SG COMP
     vaig ser l'última tia amb qui va estar abans de la seua nóvia i clar, ara que
     ho han deixat li pica la xorra i se'n recorda de mi.
     <u>'He is telling me that</u> he just went out of a long relationship and **it seems**
     that I was the last girl with whom he was before her girlfriend and, of course,
     now that they have split up and his cock tickles and he thinks of me'
                                 [CIVAL, *Les dones no som (tan) complicades*, 2015]

The indirect evidential marker *sembla/pareix que* is sometimes indeterminate with regard to the inferential or reportive value:

(78) *n'hi ha subvencions pero, hasta ara, ara* ***pareix*** ***que***
                                               seem.PRS.3SG   COMP
     se ho volen apanyar una mica, hasta ara només havien sigut pes que
     tenien molta terra.

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39 According to the author, the main semantic and pragmatic difference between *es veu que* and the modal marker *deure* is that the latter does encode the speaker's attitude and evaluates the state of affairs, as shown in Section 7.3.2.

'there are subsidies but, until now, now **it seems that** they want to fix it a little bit, until now the subsidies were only for those who had much land' [COD Tamarit]

(79) *ara Palma és una, una ciutat que està morta, [...] <u>jo no he estat molt activa, diríem, dins sa ciutat</u>, ni he intentat fer*
moltes coses, [...] <u>no sabia gaire de lo que anava</u>, prò **pareix** **que**
seem.PRS.3SG COMP
a s'època qu hi va estar el PSOE se va fer bastanta coseta. Ara és una merda.
'now Palme is a, a city that is dead, [...] <u>I have not been very active, we could say, within the city</u>, nor have I tried to do a lot of things, [...] <u>I did not know very much what this was about</u>, but **it seems that** at the time the PSOE governed quite a lot of things were done. Now it is all crap.'
[COD Palma]

The construction *sembla/pareix ser que* has exclusively specialized as a hearsay marker. The COD only offers one example. This is probably due to the fact that this form has been extended in formal registers (Antolí Martínez 2015a: §2.5.3).[40] Example (80) corresponds to an oral text, but crucially it belongs to a formal register where the speaker talks about history and architecture:

(80) *allà hi ha la Casa de la Vila, que havia estat un [...] dels edificis e civils més importants de Catalunya, de caire civil, va ser totalment destruït també al trenta-sis,* **sembla** **ser** **que** *fortuïtament*
seem.PRS.3SG be.INF COMP
'up there, there is the town hall, which had been one [...] of the most important, uh, civil buildings in Catalonia, of a civil type, it was totally destroyed also in 1936, **it seems to be that** fortuitously' [COD Puigcerdà]

7.4.4 The marker *resulta que*

The verb *resultar* has developed some evidential uses in the impersonal construction *resulta que* 'it turns out that'.[41] This indirect evidential marker indicates hearsay, but the evidential reading is not as clear as in the case of *es veu que* and *sembla que*, because *resulta que* can also express its core lexical mean-

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40 Antolí Martínez (2015a) points out that it is a recent loan from Spanish that has penetrated into Catalan from the beginnings of the 20th century, precisely in formal registers. In fact, this construction cannot be found in the *Museu de la Paraula*.

41 This chapter does not deal with *resulta ser* 'it turns out to be' because no token is attested in the COD. However, it is well documented in written texts (see CTILC and CIVAL).

ing 'appear, emerge, become'. Regarding commitment, the speaker is not involved at all, unlike the other hearsay markers. The speaker is not committed to the information. However, this meaning is close to factuality, i.e. the state of affairs is presented as an actual fact (certainty). Thus, *resulta que* is equivalent to its Spanish counterpart: "The verb *resultar* expresses a relatively high reliability, without therefore involving the speaker's own commitment" (Cornillie 2007: 53). For sure, *resulta que* indicates a well-known piece of information (and not a hearsay at all). For instance, in (81) some propositional information ('the land valued at 60 milions became valued at 400 milions') is conveyed from somebody else's words, but the speaker does not evaluate this information, but just presents it:

(81) *"Sa nostra", que és un banc de Mallorca, també e es president no sé què*
      de, PP, [...] compren un solà, per posar-hi una seu,
      i **resulta**   **que** *aquest solà de, amb una setmana va passar*
       turn.out.PRS.3SG COMP
      de xixanta milions a quatre-cents, des seu való
      '"Sa nostra", which is a bank of Mallorca, and also the president of I
      don't know what within the PP [a political party], [...] they buy a sit in or-
      der to build a headquarters, and **it turns out that** this site of..., within
      one week it changes from being valued at 60 milions to being valued at
      400 milion.'   [COD Felanitx]

(82) *van posar un, un senyor, com un encarregat, que li deien, no sé si li deien el*
      Pedro... No sé què. Que ere un tio molt calmós, sas? I llavons
      resulta   **que**   *a tothom els hi donae la raó, prò feie la seva.*
      turn.out.PRS.3SG   COMP
      'they put a, a man, like a manager, who was called..., I don't remember
      whether they called him Pedro... I don't know what else. He was a very
      calm guy, you know? And then it **turns out that** he agreed with every-
      body, but then he did what he wanted.'   [COD La Seu]

7.4.5 Reportive conditional

The conditional tense signals future-in-the-past, but it has also several non-temporal modal and similar uses (counterfactual, surprise, rejection, epistemic, concessive) which are actually more prototypical values of its meaning than the tense value (Pérez Saldanya 2002: §22.5.9). Among them, we find the reportive meaning, also known as *conditionnel de reprise* in French (Dendale 2014), a

hearsay marker used as an attempt to give information in a more objective way, and therefore avoiding that the speaker commits to the truth of the proposition. The information normally comes from a non-concrete source or a source that cannot be confirmed, which also qualifies the proposition as an uncertain one. This strategy belongs to – or is actually exclusive of – formal, academic, and especially journalistic registers:

(83) *El nombre de víctimes, segons les últimes informacions,*
      s'   ***elevaria***   *a 67 morts*
      REFL increase.COND.3SG
      'The number of victims, according to the last news, **would increase** to 67 dead people'   [Avui, 1997.18.11, Pérez Saldanya 2002: 2644]

(84) *Un veí* ***hauria***   ***esgrimit*** *un cúter contra un treballador de la*
                have.COND.3SG brandished
      neteja que intentava impedir que pengés un cartell de "Tourist, go home"
      'A neighbor **would have brandished** a cutter against a cleaning worker who was trying to prevent him to hang a poster of "Tourist, go home"'
                                                                    [Ara, 2017.12.08]

This evidential use of the conditional, frequent in languages such as French and Spanish, is not very frequent in the general spoken and colloquial varieties of Catalan. The fact that it appears in the particular context of journalism and academia had led some authors to view it as a semantic borrowing from French (Pérez Saldanya 2002: 2644; GIEC: §24.4.8). However, diachronic studies have shown that this value results from an internal process in Old Catalan (Martines 2015; 2017a; see Section 7.7).

7.5 Indirect-indifferent markers

When dealing with the sequence *sembla/pareix que* (Section 7.3.1, Section 7.4.3), we saw that some of its uses can vaguely encode indirect evidentiality, and also with *es veu que* (Section 7.4.2). These uses mark cases of indirect evidentiality in which one cannot tell from the context whether the assertion has arisen from an inferential process of the speaker or belongs to another person's utterance. However, in most cases the evidential subtype is straightforward from the context. The present section deals with a similar expression, formed by the verb *conèixer* 'know'. The impersonal construction *es coneix que* '(it) is known that' displays sometimes the indirect-indifferent evidential use.

7.5.1 The marker *es coneix que* '(it) is known that'

The construction *es coneix que* '(it) is known that' is a marker of indirect evidentiality. It is particularly alive in Valencian Catalan, both in formal and colloquial registers, especially in the latter. Although it is not unknown in the other Catalan varieties, it is not a frequent expression in Standard Catalan.

This impersonal construction always appears in third person singular and with the clitic *es*. It selects a subordinate clause with *que*, introducing the proposition. It is thus a partially grammaticalized construction, which has fixed an indirect evidential meaning. It can have an inferential value, as in (85)–(87) or a reportive one, as in (88) and (89):

(85) *El xicot* **es coneix** *que és molt xerraire,*
          MM   know.PRS.3SG   COMP
<u>*perquè quan l'altre s'ha girat a dir-nos que no trobava el barret*</u>*, també li ha tornat resposta.*
'The boy also **it is known that** he is very talkative, <u>because when the other has turned around to tell us that he didn't find his hat</u>, he has also answered him.'   [*La missa del pastor*, Valeri Serra]

(86) *Vosatros* <u>*tingau una poqueta calma a que s'alse la vostra ama*</u>*, la So Maria Rosa, que* **es coneix** *que hui no té gens de presa.*
                   MM   know.PRS.3SG   COMP
'You <u>had a little more patience until your lady gets up</u>, So Maria Rosa, because **it is known that** today she has not rush at all'
          [CIVAL, *I per un monyicot se digueren*, 1930]

(87) *Perquè ell mateixa s'ho va voler deixar, perquè s'astimava més el plat de la papilla, eh, es,* **es coneix** *que es quedava més satisfet.*
                   MM   know.PRS.3SG   COMP
'Because he wanted to stop himself, because he preferred the dish of the baby food, uh, **it is known that** he was more satisfied with that.'
          [Museu de la paraula, Muro d'Alcoi]

(88) *−Octavi, com m'alegre de veure't, t'he telefonat al departament, però*
es coneix *que no hi estaves. −Sí que hi estava.*
MM   know.PRS.3SG   COMP
−Ah, doncs <u>*el teu secretari no ho devia saber*</u>*.*
'−Octavi, I am very happy to see you, I phoned you at your department, but **it is known** that you were not there. −I was there indeed. −Oh, so <u>your secretary couldn't know it.</u>   [CIVAL, *Tota d'un glop*, 2003]

(89) *Que el home* **es**   **coneix**   *que*   *els cridaren a files,*
                MM know.PRS.3SG COMP
     i se n'anà a la guerra
     'That **it is known that** the man was called to join the army, and he went
     to war.'   [Museu de la Paraula, Cullera]

Probably as a consequence of the original value of *conèixer*, the construction has generated an evidential reading based on well-known external evidence or hearsay. We understand that the value of known and shared information is precisely what makes this construction singular. Actually, in many cases it is difficult to tell off its particular indirect evidential value, and it rather becomes an indirect-indifferent marker encoding the shared information of the information that is given:

(90) **Es**   **coneix**   *que*   *aquests animals, quan naixen, ja deuen sentir*
     MM know.PRS.3SG COMP
     la por a les raboses, i de menuts ja se l'enfilen cap a dalt de l'arbre.
     '**It is known** that those animals, when they are born, they must already
     feel fear of foxes, and since they are young they climb up to the tree.'
                          [CIVAL, *Els valencians de secà*, 1969]

(91) *perquè és que jo caiguí un bac del sostre en terra, i no sé com no me matí.*
     Es   **coneix**   *que*   *el crio es posaria de mala posició,*
     MM know.PRS.3SG COMP
     perquè ja estava de huit mesos
     'because it turns out that I fell from the ceiling to the floor, and I don't
     know how I did not kill myself. **It is known that** the baby would proba-
     bly adopt a bad position, because I was already 8 months pregnant'
                        [Museu de la Paraula, Benaguasil]

7.6 Other evidential markers

In this section direct evidentials and some perceptual verbs are presented (Section 7.6.1). Then, two pragmatic markers are discussed (Section 7.6.2).

7.6.1 Direct evidentials and perceptual verbs

There are Catalan verbs with values of direct evidentiality, such as *veure* 'see' and *sentir* 'feel', *olorar, oldre* or *fer olor* 'smell', *fer gust* 'taste', *notar* 'feel', *en-*

tendre 'understand'.[42] Unlike reportive and inferential evidentiality, here the speaker is the source of the information because s/he has had direct access to it. However, in some cases these verbs also have secondary values encoding indirect evidentiality, as we will show next for *veure* and *sentir*.

We saw in Section 7.4.2 that the verb *veure* enters into the indirect evidential construction *es veu que*. As a lexical verb, it obviously has values of direct evidentiality. According to the classification of direct evidential subtypes proposed by Antolí Martínez (2017: 38–39), the verb *veure* can encode an evidential value of visual direct knowledge (92) or "general direct knowledge" (93) that refers to what is already known. It can also encode indirect evidential values: one of them, labeled 'objective knowledge' by Antolí Martínez (2017), is very close to reportive evidentiality (94), and the other is clearly inferential (95):

(92)   –*Estàvem massa distrets amb la contarella. Crec que **he vist** de reüll que passava algun todó...*
        'We were too absent-minded with the story. I think that **I've seen** out of the corner of my eye that some dove passed by...'

                                                        [*Temps de batuda*, 1983]

(93)   –*És clar que mossèn Hilari tenia una altra clau, i ja **hem vist** com aprofitaven el local per a magatzem d'armes i munició.*
        '–Of course, father Hilari had another key, and we **have** already **seen** how they used the local to store weapons and ammunition.'

                                                        [*Temps de batuda*, 1983]

(94)   *És que aqueixa pobra gent em commou quan **veig** que han de vendre el tros que ha estat la il·lusió de molts anys*
        'The thing is that that poor people move me when I **see** that they have to sell the land that has been their hope for many years'

                                                  [*Sense la terra promesa*, 1980]

(95)   *M'agradarà seguir aquesta conversa amb vostè, en una altra ocasió, perquè **veig** que en sap.*
        'I will like to continue this conversation with you, on another occasion, because I **see** that you know about it.'   [*Temps de batuda*, 1983]

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42 Direct evidentiality has not received much attention in Catalan. From a diachronic perspective, however, the verbs *veure* 'see', *sentir* 'hear', *oir* 'hear' and *entendre* 'hear' have been studied by Antolí Martínez (2017).

The verb *sentir* fundamentally expresses the acquisition of information in a direct auditive way (96). It can also have a reportive value (hearsay), without specifying the source of information (97). This can also be encoded by the construction *sentir (a) dir* 'hear (to) say' (98):[43]

(96) —*Què ha passat?* **He sentit** *que t'escridassava*
 '—What happened? **I heard** that he was shouting at you'

 [CIVAL, *El lledoner de l'home mort*, 1996]

(97) **He sentit** *que algú ha llançat un còmic on Spiderman ajuda els bombers de Nova York*
 '**I heard** that someone launched a comic in which Spiderman is helping the firefighters from New York' [CIVAL, *A Jerusalem*, 2005]

(98) **He sentit a dir** *que el president dimitirà.*
 '**I heard** that the president will resign.' [*DIEC2*]

7.6.2 Pragmatic markers *(és) clar* 'it is true' and *la veritat* 'it is true'

Evidentiality in Catalan has also been studied from a pragmatic perspective (Cuenca and Marín 2012; González 2014; Cuenca 2015). Some pragmatic markers also have evidential values as an emergent meaning which can become salient depending on the situation (Kecskes 2013). González (2014: 422)[44] studied *és clar* 'it is true' (lit. 'it is clear that') and *la veritat* 'it is true' (lit. 'the truth') in the discursive interaction and concludes that "the two markers acquire a strong evidential dimension in discourse since, through an inferential reasoning process, the two open up expectations that can be matched through real world knowledge". Crucially, they have an inferential value and the marker is based on a well-known piece of evidence, as in (99). In this case, the evidential value is related to epistemic modality: "what a speaker is in fact doing is creating an epistemic sphere of belief that seeks the compliance and alignment of the inter-

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43 In Old Catalan *sentir* used to express perception through all senses, except for vision (Antolí Martínez 2017: §3 and §4). The verbs *oir* 'hear' and *entendre* 'hear, understand' had also values of perception in Old Catalan (Antolí Martínez 2017), but not in Contemporary Catalan.
44 The author studied the cognitive-functional properties of these two evidential markers and their role in interactional contexts (monologic or dialogic). It seems that in a dialogic segment their role is the negotiating collective salient meaning. In a monologic segment, the speaker shares with the interlocutor his/her epistemological stance.

locutor" (González 2014: 416). These markers can also have a more personal and emphatic value, as in (99) or (101):

(99) ***Clar/La veritat (és que)*** *trobar una bona feina és molt difícil avui dia.*
'**Of course** (you and I know that) finding a good job is very difficult these days.'

(100) ***(És) Clar*** *que l'estimo!*
'**Of course** I love him!'

(101) ***La veritat*** *és que l'estimo.*
'**I truly** love him.'

Cuenca (2015: 374), in a corpus study of a parliamentary debate, considers the parenthetical marker *és clar* to encode induction based on shared information:

(102) *Acordada, ens haurà de dir amb qui. Acordada en aquest Parlament?*
Segur. Acordada amb el Govern espanyol? No ho sé. Tant de bo –tant de
*bo. Però, **és clar**, si ha de ser acordada amb el Govern espanyol, que és del*
PP i amb majoria absoluta, doncs vostè dona tota la clau de decisió al PP...
'(It has been) Agreed, you will have to tell us with whom. Agreed in this Parliament? Sure. Agreed with the Spanish Government? I don't know. I hope so, I hope so. But, **of course**, if it is to be agreed with the Spanish government, which is the PP and has absolute majority, then you give all the key decision power to the PP'   [DI, 26, Mas]

7.7 Remarks on diachrony

Catalan evidential markers have received attention in diachronic studies, focusing on Old Catalan (11th–16th centuries). Research has been made on the rise of evidential (and epistemic) values in Catalan, such as the reportive evidential conditional (Martines 2015, 2017a, 2018), the epistemic future (Martines 2017b) or modal verbs (Sentí 2015a, b, 2017, 2018; Antolí Martínez 2015b) and constructions such as the ones with the verbs *parèixer* and *semblar*, among others, and also verbs of perception (Antolí Martínez 2015a, 2017).

Evidential strategies and evidential markers have developed diachronically on some well-known paths. First, verbs of perception, such as *veure*, developed a direct evidential reading in Old Catalan. This particular verb has also given rise to an inferential evidential meaning, as a result of a conceptual metaphor or a metonymic process. After the medieval period, the impersonal construction *es*

veu que was developed. The markers derived from the verb *dir* originated in reported-speech contexts (see Antolí Martínez 2015a).[45]

The verb *semblar* (< Lat. SĬMĬLĀRE) comes from a main verb's meaning similarity. In Old Catalan, *semblar* was used to a limited extent, and it actually indicated similarity and opinion only. Later developed a copulative and an impersonal use (Antolí Martínez 2017b). Its evidential values arise from these new uses. However, the verb *parèixer* or *(a)parer* (< Lat. PARĒRE), that developed several evidential uses from the original meaning 'appear', was employed as an inferential marker already in Old Catalan (Antolí Martínez 2015a). Those uses are preserved in most dialects, but Central Catalan and the contemporary standard variety mostly use *semblar*.

The verbs *deure* and *haver de*[46] come from main verbs with an owe (< Lat. DĒBĒRE) and possession (< Lat. HABĒRE) meaning. These lexical verbs yielded modal verbs with deontic necessity and dynamic modality readings (cf. van der Auwera and Plungian 1998; Nuyts 2006) and became (semi)auxiliaries. The result of the grammaticalization, subjectification and semantic change in Vulgar Latin and Old Catalan gave rise to the evidential readings described in Section 7.3.2 (Sentí 2015a, 2017; Sentí and Cornillie forthcoming). Crucially, the rise of evidential meanings from necessity is triggered by specific processes of inference. The new nuance (inferentiality) emerges because of the reinterpretation of necessity in contexts where the speaker perceives external evidence that pushes him to elaborate a solid hypothesis (specific inference) (Sentí 2015a):

(103) *E hoís molt bé la crida que nós havíem feyta fer, car tots cels qui eren en la ost la* **devien** **ohir**.
       must.IMPF.3PL   hear.INF
       'And he heard very well the call that we had had done, because all those who were in the army **must have heard** it.'   [*Llibre dels Fets*, 13th C.]

The path of grammaticalization is thus deontic necessity > specific inference > generic inference.[47]

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45 Also the diachronic evolution of the verb *témer*, other verbs of perception (*oir, entendre*) and some verbal phrases such as *donar a entendre* have been studied (Antolí Martínez 2015a, 2017).

46 Also, the periphrasis *tenir* (*a*/*de*) + infinitive 'have to' originated in Old Catalan, as a parallel construction to *haver de*.

47 The modal *poder* has been studied in diachrony. Sentí (2018) points out that *poder* develops epistemic meanings (and not evidential ones) from dynamic modality. And the periphrasis *voler* + infinitive outlines a grammaticalization path: VOLITION > INTENTION/DESIRE > FUTURE IMMINENT FUTURE > INFERENTIAL EVIDENTIALITY (Antolí Martínez 2015b).

The evidential (and modal) meanings in the future and conditional tenses have been perfectly attested in Old Catalan (Martines 2015, 2017a, b). On the one hand, the epistemic future and conditional come from the future value and future-in-the-past. The inferential (or epistemic) meaning rose up in situations in which the speaker elaborates a subjective prediction and the temporal component remains in the background. Progressive attenuation of the notion of posteriority gave rise to the inferential (or epistemic) nuance, and the new meaning became strengthened. This process started in the 13th century, in particular in the 2nd and 3rd person (Martines 2017b). On the other hand, the reportive conditional emerged between the 13th and 15th centuries (Martines 2015, 2017b). This meaning arose in reported speech when the speaker reported information provided by its original author. The reported information was inserted in a subordinate clause introduced by a verb (such as a speech act verb, among others). Progressively, this context of reported speech is used to indicate that the mediated information is a conjecture, and, then, subjectively, the conditional encodes the epistemic position of the speaker. When the original author reference faded away, the conditional became a hearsay marker (15th century).

7.8 Conclusion

Although Catalan is not a language with a grammatical evidential system, several lexical units and conventionalized (and grammaticalized) constructions have evidential core values or semantic evidential extensions. Verbs of perception such as *sentir* or *veure* encode direct evidentiality (but also have inferential extensions). This chapter, however, has focused on indirect evidentiality, as it presents a richer set of strategies in Catalan.

On the one hand, inferential markers have been described. The constructions with SEEM-verbs have several inferential meanings (i.e. specific, generic and conjectural inference; Squartini 2008). Interestingly, the most frequent construction is *em sembla que* 'it seems that', which functions as a subjective marker and encodes a conjectural meaning and uncertainty. The constructions *sembla/pareix que* 'it seems that', crucially without the dative clitic, also have a reportive reading. In the case of modal verbs, only inferential meanings are found. The verbs *haver de* 'have to' and *deure* 'must' as well as the conjectural future show a functional distribution of inferential meanings. We have focused on the verb *deure*. According to the data, it is a polysemic inferential marker that in some uses has a subjective meaning encoding uncertainty or doubt, especially in some particular contexts (interrogative sentences, a fossilized past

form, and a new future tense use). Finally, evidential and modal adverbs show some inferential uses, as is the case of *evidentment* 'evidently'.

On the other hand, reportive evidentiality is expressed by SAY-verbs and SEE-verbs in constructions such as *(es) diu que* 'it is said that', *diuen que* 'they say that' or *es veu que* 'it seems that'. The reportive marker *resulta que* 'it turns out that' stands out because it encodes factuality, though the speaker does not commit himself or herself to the truth of the proposition. Additionally, the reportive conditional used in journalistic and academic texts has been described.

Finally, an indirect-indifferent marker has been identified, the impersonal construction *es coneix que* '(it) is known that', which is employed not as intensively as other constructions in Standard Catalan.

Over the past years, evidentiality has been studied in Catalan under synchronic and diachronic approaches. However, more fine-grained corpus-based studies on evidential markers are still needed in order to account for the meanings and functions of these markers in different communicative contexts and taking into consideration diatopic and diaphasic variation.

Abbreviations in glosses (not included in LGR)

PART	partitive
MM	impersonal middle marker

Corpus references

COD = *Corpus oral dialectal*. [http://www.ub.edu/cccub/corpusoraldialectal-cod.html] and Dialcat [http://stel.ub.edu/dialcat/].

COC = Payrató, Lluís and Núria Alturo (eds.). 2002. *Corpus oral de conversa col·loquial. Materials de treball*. Barcelona: Publicacions de la Universitat de Barcelona. [http://www.ub.edu/cccub/corpusoraldeconversacolloquial-coc.html].

CTILC = Institut d'Estudis Catalans: *Corpus textual informatitzat de la llengua catalana* [https://ctilc.iec.cat/].

CIVAL = Acadèmia Valenciana de la Llengua: *Corpus Informatitzat del Valencià* [http://cival.avl.gva.es/]

Parlars = Beltran, Vicent, Miquel Esplà, Maribel Guardiola, Sandra Montserrat, Carles Segura and Andreu Sentí. *Parlars. Corpus oral del valencià col·loquial*. València: Universitat de València. [https://www.uv.es/corvalc]

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Mercedes González Vázquez and Elena Domínguez Romero

8 Evidentiality in Galician

8.1 Introduction

The present paper draws on the expression of evidentiality in Galician. Expressions of indirect, inferential and reportive evidentiality are analyzed and a good number of indirect-indifferent examples is considered. The work has been organized as follows: Section 8.1 presents the corpus and a panoramic view of evidentiality in Galician. Section 8.2 describes inferential markers derived from SEE AND SEEM-verbs and the adverbial unit *seica* 'apparently', and the modal auxiliary *deber* 'must'. Section 8.3 discusses reportive expressions. Section 8.4 focuses on units with an indirect-indifferent meaning; this is to say, units that occur in both inferential and reportive subdomains since their meaning varies between these two semantic areas and cannot be often disambiguated.

8.1.1 The Corpus

The *Corpus of Reference of Current Galician* (CORGA) comprises a collection of documents stored in electronic format and includes all the different registers that represent contemporary Galician (journalistic, literary and scientific). The thematic areas are varied and involve economics and politics, culture and arts, social sciences, sciences and technologies, and fiction. Chronologically, CORGA comprises texts published from 1975 to the present, when the corpus comprises a 29-million-form online version which is available on the website http://corpus.cirp. es/corga. This version is based on the XML standard.

8.1.2 A panoramic view of evidentiality in Galician

Not much has been written about the expression of evidentiality in Galician to date. The only Galician evidential markers that have seized attention in the literature are the reportive marker *disque* '(it) is said' (Rosales 2005; Cruschina and Remberger 2008; Sanromán Vilas 2020; Sousa 2012), which is equivalent to the medieval Spanish *dizque,* and the marker *seica* '(it) is said, apparently, it seems' (Rosales 2005; Cidrás 2017). Although the former is now lost in modern Peninsular

Spanish,[1] *disque* is commonly used in Galicia. The form *dizque* can be also found in some areas of Latin America, mainly in Mexico and Colombia (Olbertz 2005, 2007; Travis 2006; De la Mora and Maldonado 2015). The verbal expression *diz que* is used to express a reportive meaning in European Portuguese (see Domínguez Romero, Martín de la Rosa and Moraes Abrahão, this volume). However, this expression is still undergoing a word-formation process in Brazilian Portuguese (Casseb-Galvão 2001). The versatile adverb *seica* '(it) is said, apparently, it seems' does not present cognate forms in other Romance languages since it exhibits a broad range of evidential meanings and pragmatic values.

Galician shares some important features with Spanish, Catalan and other European Romance languages such as Italian and French, among others. Its lexical and grammatical means of expression — with no morphological evidential markers — are very similar to those of the other Romance languages. Moreover, the evidential meanings in Galician are similar to the evidential meanings in other European Languages.

For methodological reasons, this study draws mainly on Aikhenvald and Dixon's (2003: 139, Aikhenvald 2004: 65) and Squartini's (2001, 2008) notion of evidentiality. Aikhenvald and Dixon (2003) and Aikhenvald (2004) suggest a distinction between Direct (firsthand) and Indirect (non-firsthand) evidentiality, with the latter being subdivided into Inferred and Reported. Within the category of firsthand evidentials, Aikhenvald further distinguishes between visual "and other kinds of perception" (auditory, olfactory, etc.). In the case of inferential evidentiality, the author differentiates between perception-based inference (Squartini's 'circumstantials' 2001, 2008) and reasoning-based inference or assumption (Squartini's 'generics' and 'conjectures' 2001, 2008; Willett 1988; Plungian 2001; Diewald and Smirnova 2010: 63).

Direct evidentiality is expressed in Galician by verbs of perception, *ollar*, *ver* 'see' and *oír*, *escoitar* 'hear', mainly in infinitive constructions. The perceptual markers derived from *ver* 'see' in the complementizer constructions *vexo que* 'I see that' (first-person indicative) and *vese que* '(It) can be seen that' (impersonal) can also express inference because of the different metaphorical extensions derived from the perception verb *ver* 'see'. This is also the case of expressions resulting from *escoitar* 'hear', which can denote both direct and reportive evidentiality, as will be seen in Section 8.3 on reportive expressions.

Regarding indirect evidential meanings, inferential evidentiality is expressed by forms derived from SEE and SEEM-verbs: *ver* 'see', *semellar* and

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1 The medieval Spanish *dizque* was lexicalized by the end of the Middle Ages (López Izquierdo 2006; Miglio 2010).

parecer 'seem' and *deber* 'must'. Expressions such as *semella* '(it) seems', *debe* 'must', *vese que* '(it) can be seen that' and *polo que vexo* 'as I can see' are inferential. Meanwhile, regarding reportive expressions, *disque* '(it) is said', *dise que* '(it) is said that', *din que* 'they say that' and *polo que din* 'according to what they say' only function as reportive evidential markers. Nevertheless, as in other European languages, the distinction between inferentials and reportives can be context-dependent in Galician. The units *seica* 'apparently', *parece* '(it) seems', *ó parecer* 'as (it) seems' and *aparentemente* 'apparently' convey either inference or reportive meanings depending on the context.

As we will see in Subsections 8.2.1 and 8.2.2, SEE and SEEM-verbs are integrated into different constructions: with the complementizer *que* 'that', the infinitive, or in parentheticals (Aijmer 2009; also, Cornillie 2007a: 25–48 on Sp. *parecer*; Diewald 2000 on Germ. *scheinen*). There is no agreement on the existence of a correlation between the syntactic construction and the meaning conveyed by these evidential markers in the European languages (Lampert and Lampert 2010: 315). We suggest in this study that there is no such correlation between a specific construction and the type of evidentiality in Galician, except for the verb *ver* 'see', as we will see in Subsection 8.2.1, and *semella que*, *semellar* + INF '(it) seems that/to', which only mark inferential meaning. In infinite constructions, *parece* '(it) seems' has a tendency to denote an inferential rather than a reportive meaning.

Regarding the scope of the evidentials, it is worth mentioning that the expression of a reportive meaning involves the markers showing variability in their syntactic scope as they may not be syntactically integrated into the clause (Wiemer and Stathi 2010; Boye 2010, 2018). As it is in other Romance languages, adverbial expressions can occur parentheticalized, particularly in *ó parecer* 'as (it) seems', *seica* 'apparently' and *disque* '(it) is said'.

The lack of a clear dividing line between evidentiality and epistemic modality is also a feature that Galician evidential markers share with other European Romance languages. Evidential expressions present epistemic overtones because of the pragmatic conditions in which they occur. The difficulty to differentiate epistemic modality and inferential evidentiality increases when dealing with non-perception-based inferences (Wiemer 2007: 196–203, 2010; Wiemer and Kampf 2015 [2011]). In this regard, the modal auxiliary *deber* 'must', which marks a meaning of doubt inherent to the semantics of *deber* 'must' (González Vázquez 2006) is worth noting. A detailed description of *deber* 'must' is provided in Subsection 8.2.3.

Finally, non-evidential categories acquire evidential extensions in Galician. As an example, the conditional, imperfect and future tenses can take an eviden-

tial-like meaning. By this 'evidential strategy', the conditional provides information obtained from an external source for which the speaker/writer does not take any responsibility (Aikhenvald 2004). This is also the case in French, Italian and Spanish (Squartini 2001, 2009; Dendale and Van Bogaert 2007; Pietrandrea and Stathi 2010, among others); see Dendale (this volume), Marín Arrese and Carretero (this volume). The evidential functions of the future and the conditional convey inferential meaning in both Spanish and Galician (Escandell and Leonetti 2005; Escandell 2010; Bermúdez 2000, 2005). Besides, the imperfect tense can also acquire a reportive meaning in both languages (Reyes 1990; Escandell and Leonetti 2005). Grammatical evidential strategies are beyond the scope of this study and will remain an important topic for future research.

8.2 Inferential expressions

This section draws on the analysis of the meanings of inferential expressions in Galician based on the widest context possible for correct interpretation. Special attention is paid to the context-dependent epistemic values of these inferential expressions.

8.2.1 Inferential expressions derived from SEE-verb: *vexo que* 'I see that', *vese que* '(it) is seen that', *ben se ve* '(it) is clearly seen that', *polo que se ve* 'as it is seen'

Infinitive and non-finite constructions with perception verbs are controversial in the field of evidentiality because some authors consider them to be full lexical perception verbs taking complements to indicate the location of the object of perception rather than functioning as evidential markers of perception (Bermúdez 2005; Whitt 2018; Boye 2010, 2012). A link between particular construction types and types of evidentiality, which excludes infinitive constructions from the scope of evidentiality, has also been suggested (Boye 2010, 2012).

The results of the analysis of the examples retrieved from the CORGA corpus reveal that the Galician perception verb *ver* 'see' functions as a full lexical verb in infinitive constructions in first and third-person singular present and as an inferential evidential in all the cases in which it appears in third-person singular clauses. Nevertheless, the first-person singular non-finite clause *vexo que* 'I see that' allows both readings. The next three examples show instances of *ver* 'see' with a lexical meaning. These involve the first-person singular present *vexo* 'I

see' followed by a non-finite *que*-clause (that complement clause) and infinitive constructions:

(1) *Levántome, primeiro perplexo, logo arrepiado, cando* **vexo**   **que**
                                                              see.PRS.1SG COMP

    na   *outra parte da estrada*   *estaba*   *un vulto humano*
    PREP   other side of the road.LOC   be.PST.3SG   a human figure
    unha persoa grande, boca abaixo, á que se achegaban varias persoas.
    'I stand up, first surprised, then scared, when **I see that** on the other side of the road there was a human figure. A person upside down, to whom some people were approaching.'

(2) *Dende o barandal do navío*
    vexo   **pasar**   *dediante* *de min* *os mastros* *e*   *as velas*
    see.PRS.1SG pass.INF front   of 1SG masts   and sails
    da Grande Compaña do Navegador, a peregrinación dos vellos navegantes.
    'From the banister of the ship **I see** the masts and sails of the Sailor Big Company **pass** in front of me, the pilgrimage of the old sailors.'

(3) *É bon carpinteiro de ribeira. Dende a miña fiestra*
    vexo   **saír**   *o traballo composto*   *ben feito.*
    see.PRS.1SG   come_out.INF the finished work   well done
    'He is a good carpenter from the riverside. From my window, I see the finished work come out well done.'

In the preceding examples, *ver* 'see' operates as a full lexical perception verb because its meaning belongs to the propositional content and its syntactic properties are maintained: *ver* 'see' can take direct object pronouns and prepositional complements of place. Moreover, its visual meaning can be negated (Boye 2010, 2012; Whitt 2018).

Unlike the previous non-evidential examples, non-finite constructions in the third-person singular present, such as *vese que* '(it) is seen that', *ben se ve que* '(it) is clearly seen that' and *polo que se ve* 'as it is seen', tend to convey inferential meaning in Galician. These constructions can show either inference based on perceptual observation (ex. 4 and 5) or inference based on previous knowledge of the world (ex. 6 and 7):

(4) *Aínda que segue bastante cuberto de hedras e silvas,* **vese**   **que**
                                                               see.PRS.3SG.MM COMP

    está   *feito*   *con boas pezas de cantería,*
    be.PRS.3SG   make.PST.PTCP   with good masonry
    con repousabrazos labrados a cada lado.

'Although still quite covered with ivy and brambles, **it can be seen that** it is made with good masonry, with carved arms on each side.'

(5) *-A súa muller é o noso escudo. A ela non a vai querer queimar.*
*-Pois **polo que se ve**,   non parece   importarlle*
well from COMP MM see.PRS.3SG NEG seem.PRS.3SG care.INF.PRN.3SG
moito   (Miran para a muller atada na árbore).
much
'-His wife is our shield. They are not going to burn her.
-Well, **as we can see,** he does not seem to care much. (They look at the woman tied to a tree.)'

(6) *Os máis novos xa non miden esto, pero eu que as paséi negras e recibín*
couces de moitos grandores, sei o que é ser tratado coma un ser humán, e
amáis, que ninguén me zugue o suor e que todos traballemos pra todos.
Eso val moito, paisano. ***vese***   *que*   *este*   *home*   *está*
                  see.PRS.3SG.MM COMP DEM *man* be.PRS.3SG
moi   firme nas súas   ideas.
very firm PREP his   ideas
'The younger ones are no longer aware of this, but I had a really bad time learning the bad way from my Grandmothers and I know what it is like to be treated as a human being, and to love, that... that we all work together for the benefit of all. That means a lot, fellow countryman. **It can be seen that** this man is very firm in his ideas.'

(7) *Como sempre pasa, haberá quen pense, seguramente, que esta historia*
non é máis ca unha tolería, ou mesmo un trasnoitado afán protagonista,
porque o Camiño está máis que estudiado... Eu diría que nin caso. Quen
isto pense, ***vese***   *que*   *non*   *entendeu*   *nada...*
         see.PRS.3SG.MM COMP NEG understand.PST.3SG anything
'As always, there will be some people who, of course, will think that this story is just nonsense, or a case vanity, because the way is very well signposted... I would ask you to disregard them. Whoever thinks this way, **it can be seen that** s/he didn't understand anything...'

Non-finite constructions in the first-person singular present, such as *vexo que* 'I see that', can also take perceptual-based inferential meanings:

(8) *Sei que é unha parvada, pero cústame aceptar que nunha cidade coma*
esta, onde todo semella harmonía, poidan cociñarse delitos dese calibre.
Paréceme raro, pero xa ***vexo***   *que*   *é*   *así.*
                  now   see.PRS.1SG COMP be.PRS.3SG so

'I know this is silly, but I cannot accept that in a city like this, where
everything seems to be in harmony, crimes of that magnitude can take
place. It seems strange to me, but now **I see that** it is so.'

In (8), *paréceme raro* '(it) seems weird to me' indicates opinion whereas *xa vexo
que* 'I already see that' implies inference based on new perceptual evidence. The
example reveals that an opinion initially given can be contradicted a posteriori,
once the observation of perceptual data makes the speaker/writer change
his/her mind. The adverb of time *xa* 'now' contributes to emphasizing this idea.

Instances of non-finite constructions in third-person singular present re-
trieved from CORGA tend to convey an inferential meaning which is not fre-
quent in instances in the first-person singular present. The difference between
the two of them lies in a slight nuance in the intersubjectivity transmitted. Thus,
vexo que 'I see that' implies a personal inference of the speaker/writer and the
impersonal expression *vese que* '(it) is seen' adds an overtone of intersubjec-
tivity to this inference (ex. 4, 5, 6, and 7). Further research is needed in the case
of these two evidential units, personal and impersonal, regarding intersubjecti-
vity and its correlation with the type of inference.

8.2.2 Inferential expressions derived from SEEM-verbs: *parece/semella* '(it) seems' + INF, *parece/semella que* '(it) seems that' + clause, *parece/ semella coma se* '(it) seems as if', *aparentemente* 'apparently', *ó parecer* 'allegedly'

The verbal expressions *semella* '(it) seems' + INF, *semella que* '(it) seems that' +
clause, *semella como se* + clause '(it) seems as if + clause', *parece* + INF '(it) seems
+ INF', *parece que* + clause '(it) seems that', *parece coma se* '(it) seems as if' and
the adverbial expressions *ó parecer* 'allegedly', 'as (it) seems' and *aparentemente*
'apparently' express inferential evidentiality in Galician. This inference can be
based on directly perceivable results, reasoning, and report. All of these inferen-
tial markers can be associated with epistemic values depending on the context,
making it difficult to determine their exact epistemic and evidential values. As
Usonienė and Šinkūnienė (2013: 286), among others, point out: "Thus, the cur-
rent situation regarding the status of *seem*-type verbs is a classic example of
their multifaceted nature, exhibiting semantic features which are characteristic
of evidentiality and epistemic modality".

Contrary to Spanish, but in line with Catalan, Italian and French, Galician
presents two verbs which are equivalent to English *seem*: *parecer* 'seem' and
semellar 'seem'. Both of them take nominal, adjectival and infinitival comple-

ments as well as THAT-clauses (with finite complements). When taking nominal and adjectival complements, they keep their original lexical meaning and function as copulae. In these cases, the two verbs describe the fact that a particular appearance emerges from the subject.

Starting with the infinitive constructions, both verbs, *parecer* and *semellar* 'seem' have an inferential rather than a reportive meaning (cfr. Cornillie 2007a: 25–48, 2007b: 115).[2] CORGA retrieved instances of inference based on perception (ex. 9 and 10) and reasoning (ex. 11), without epistemic overtones, for the two verbs:

(9)   *A*   *Pena*   **parece**   **importarlle**   *pouco*   *ademáis*   *esto,*
      PREP   Pena   seem.PRS.3SG   care.INF.PRN.3SG   little   besides   DEM
      a xulgar pola maneira como resolvéu a cuestión polo de agora.
      'Besides, Pena **seems to care** little about this, according to the way he has been solving the issue so far.'

(10)   *Eiquí non hai nin restos de don Xaquín, as cousas están todas en orden e, ó menos así ó primeiro visual*
      non   ***parece***   ***faltar***   *nada.*
      NEG   seem.PRS3SG   be_missing.INF   nothing
      'Here there is no trace of Mr. Xaquín, everything is in order and, at least the first impression is that **nothing seems to be missing**.'

(11)   *A utilización do móbil*   **semella**   **converterse**   *en obsesiva,*
      the use of mobiles   seems.PRS.3SG   become.INF.MM   obsessive.ADJ
      e xunto con ela, a nosa calidade de vida, no canto de mellorar pola incorporación dunha nova tecnoloxía, parece converterse en dependente.
      'The use of wireless devices **seems to become** obsessive and, with it, our quality of life, instead of improving due to the incorporation of new technologies, seems to have become technology dependent.'

In the preceding examples, the speaker/writer confirms a situation that s/he considers to be true. In (9), the speaker/writer criticizes Mr. Pena's careless behavior. In (10), s/he confirms that everything is under control. The inferential meaning is also marked by the past form of the expressions *parece ter* and *semella ter* 'seem to have' + past participle, as we can appreciate in (12) and (13):

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2 The differences between *parecer* and *semellar* 'seem' in Galician have remained unstudied to date.

(12) *A crise da construcción naval*
      parece   ter   rondado   sobor   Ferrol
      seem.PRS.3SG   have.INF   hover.PST.PTCP over   Ferrol.LOC
      dende comenzos do novo réxime e agudizarse a fins de 1931.
      'The shipbuilding crisis **seems to have hovered** Ferrol from the beginning of the new regime and exacerbated by the end 1931.'

(13) *Máis alá do ruído ambiental que rodea o entorno urbano, o certo é que o modo de vida actual*
      semella   ter   deixado   de lado   *a virtude do silencio.*
      seem.PRS.3SG   have.INF   set.PST.PTCP   aside   the virtue of silence
      'Beyond the noise surrounding the urban environment, the truth is that the current way of living **seems to have bypassed** the virtue of silence.'

Although these two infinitive constructions do not encode a reportive meaning, it is very frequent to find *parece* '(it) seems to' + INF conveying inference from report. However, this type of inference is not found in the case of *semella* '(it) seems to' + INF. With *parece* + INF, the examples provided show that evidence is conveyed by the prepositional phrases *como se pode apreciar na taboa 1* 'as can be seen in table 1' (14), *o estudio in situ das SSLL* (= limited companies) 'the in-situ study of the Galician SSLL' (15), and *segundo a enquisa* '**according to an opinion poll'** (16):

(14) *Como se pode apreciar na táboa 1, nas organizacións analizadas*
      o número de categorias laborais **non parece   diferir   *moito***
      the number of category job   NEG seem.PRS.3SG differ.INF   much
      do que cabería agardar para empresas capitalistas de tamaño similar.
      'As shown in table 1, in the organizations analyzed the number of job categories **does not seem to differ** much from what it would be expected to find in capitalist companies of similar size.'

(15) *O estudio in situ das SSLL galegas* ***parece   suxerir   que***
      study of SSLL Galician   seem.PRS.3SG suggest.INF COMP
      a eficiencia   da compañia depende en gran medida da súa capacidade
      the efficiency
      para delega-la responsabilidade de dirección nun ou en varios individuos.
      'The in situ study of the Galician SSLL **seems to suggest** that the efficiency of the company depends largely on its ability to delegate responsibility for direction in one or several individuals.'

(16) *A mitade dos galegos* ***parece   asistir*** *– segundo   a enquisa*
      half   of Galicians seem.PRS.3SG attend.INF according to a poll

– unha vez por semana á igrexa.
'Half of Galicians **seem to go** – according to an opinion poll – to church once a week.'

Concerning the non-finite constructions, *semella que* and *parece que* 'convey inferential values. In (17), the inference is based on the perceptual evidence of people's behavior and comments:

(17) *En primeiro termo quero esclarecer un malentendido, pois*
parece   que *se   interpretó   unánimemente*
seem.PRS.3SG   COMP   MM   interpret.PST.3SG   unanimously
algunha manifestación do señor Calvo Hernando de que aquí estaba a burguesía.
'First I want to clarify a misunderstanding, **it seems that** some remarks by Mr. Calvo Hernando were interpreted unanimously that a bourgeoisie was here.'

The next two examples show the inferential meanings of *semella que* '(it) seems that' which are grounded on perceptual observation (18) and reasoning (19):

(18) **Semella   que** *lle   fixera   gracia*
seem.PRS.3SG   COMP   PRN.3SG   make.PST.CAUS.3SG   fun
o *derradeiro xesto   de sorpresa*
final gesture   of surprise
que vira na face de Amaro, porque ríxida sobre os beizos, quedáralle impreso un sorriso moi limpo e morno...'
'**It seems that** he had been amused by the final gesture of surprise that he had seen on the face of Amaro since, rigid on the lips, it had been printed a very clean and warm smile...'

(19) *Agora, coa perspectiva do tempo,*
semella   que *deste punto de inflexión   saíron*
seem.PRS.3SG   COMP   from this turning point   come.PST.3PL
máis cousas   boas do que se cría, sobre todo para os usuarios de Internet.
more good things
'Now, with hindsight, **it seems that** from this turning point came more good things than initially expected, especially for Internet users.'

In Section 8.3, we will study the reportive meaning conveyed by *parece (ser) que* '(it) seems (to be) that', which is not attested in *semella que* '(it) seems that'. In the light of the results of the analysis of the examples retrieved from CORGA, it

is possible to claim that Galician *semellar* 'seem' cannot take a reportive meaning due to semantic restrictions.[3] Whereas *parecer* 'seem' occurs in all syntactic constructions and can take all its possible evidential meanings, the use of Galician *semellar* 'seem' is restricted semantically and syntactically. This verb cannot be combined with the infinitive of *ser* 'be' + *que* 'that', i.e., the construction *semella ser que does not exist in Galician. Moreover, it is always possible to replace *semellar* with *parecer,* not *vice versa.*

The Italian and French equivalents to Galician *semellar* – *sembra* and *sembler* – express reportive as much as inferential meaning (Dendale and Van Bogaert 2007: 77–79; Pietrandrea 2007; Squartini 2009: 219).[4] According to Squartini, the speaker/writer infers that Carlo is tall – just by looking at the length of his coat hanging on the hook – in the Italian example (20). At the same time, the sentence implies that those who have seen him can say that he is tall. In example (21), the French impersonal *il semble* '(it) seems' takes both meanings (Dendale and Van Bogaert 2007: 78):

(20)   Italian: ***Sembra che*** *Carlo sia alto* (inferential and reportive readings)
          '**It seems** that Carlo is tall.'
          Galician: ***Parece que*** *Carlos é alto* (reportive and inferential readings)
          Semella que *Carlos é alto* (only perception-based inferential reading)

(21)   French: ***Il paraît que/Il semble que*** *les combats ont été violents* (inferential and reportive readings)
          '**Allegedly** the battles were fierce.'

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3 Pietrandrea (p.c.) pointed out a difference between Italian *parere* 'seem' and *sembrare* 'seem': *parere* has no semantic restrictions while *sembrare* seems to be focused on conveying perceptual inferences: "We have seen above that the SEEM-verb 'sembrare' has a pure inferential function when used in raising verb constructions. It can have both an inferential and a reportive function when used as a complement taking impersonal predicates or as a parenthetical. Likewise, the SEEM-verb 'parere' can have both an inferential and a reportive function in all the constructions in which it appears." And she continues: "The only difference between 'sembrare' and 'parere' resides in the proportion of inferential and reportive evidence conveyed: 'sembrare' seems to be more widely used to mark observational inferential meaning whereas 'parere' tends to encode a reportive meaning."

4 Nevertheless, Dendale and Van Bogaert (2007: 78–79) express their concern about the reportive meaning of *sembler* 'seem' in French: "For the impersonal *il paraît que* the evidential value reported is beyond doubt. The impersonal construction with *sembler*, as we have seen, does not have a clear reported value on its own; it is contextually compatible with a reported interpretation but it can nevertheless have another interpretation, expressing a personal hypothesis or analysis of the speaker based on reasoning. In that sense, it is close to inferential evidentials, but far from the type of inferential evidential that devoir is."

> Galician: **Semella que** *os combates forons violentos* (only perception-based inferential meaning)
> **Parece que** *os combates foron violentos* (inferential and reportive readings)

The markers *semella coma se* and *parece coma se* '(it) seems as if' show a clear tendency to express inference based on a comparison with similar experiences lived by the speaker/writer, as they lead to the reinterpretation of the information perceived. The proposition under their scope can be understood as an approximate characterization made by the speaker/writer with a comparative and mitigating function. Despite having a perceptual basis, the speaker/writer emphasis that the evidences have been reinterpreted:

(22) **Semella   como   se** *tamén   eles   estivesen*
seem.PRS.3SG as   if   also   they   be.PST.SBJV.3PL
ansiosos por   comezar   a competición.
anxious to   start.INF   the competition
'**It seems as if** they were also anxious to start the competition.'

Unlike (22), *semellar* presents a lexical meaning of comparison in (23). *Semella* refers to the appearance of the subject and can be paraphrased as '(it) looks like'. This implies a creation of the speaker/writer which does not correspond to reality. Rather on the contrary, the appearance of the subject allows the speaker/writer to make a comparison (23), where it seems that the bed is dancing calypso. This is a creative comparison, neither real nor the result of an inference:

(23) *Carallo con esta cama, non fai máis que moverse,*
*se agora **semella   que** está   a bailar   Calipso.*
if now   seem.PRS.3SG COMP   be.PRS.IPFV.3SG to dance.INF   calypso
'F★ this bed, it does nothing but moving, it now **seems/it looks like that**
it is dancing to the rhythm of calypso.'

Among the adverbial expressions derived from the verb *aparecer* 'appear' (vulg. lat. ★*apparescere*), the Galician adverb *aparentemente* 'apparently' implies an inference that can be grounded on direct observation (24 and 25) or reasoning (26):

(24) *¿Nestor? repetiu Lier,   **aparentemente** sen   comprender.*
Nestor   epeat.PST.3SG   apparently   without   understand.INF
'Nestor? Lier repeated, **apparently** without understanding.'

(25) *Non   quería   perder   o espectáculo   do aventureiro,*
NEG   want.PST.3SG miss.INF   the show   of the adventurous man

aparentemente.
apparently
'He didn't want to miss the show of the adventurous man, **apparently**.'

(26) *As películas de François Truffaut non se parecen ás demais*
aínda que, ***aparentemente*** *os seus temas   resulten*
although   apparently   their plots   be.PRS.SBJV.3PL
tan comúns ou próximos.
'François Truffaut's films are original although, **apparently**, their lines
of argument can be as common or close.'

The adverbial expression derived from the verb *parecer* 'seem' in Galician is *ó
parecer* 'apparently', which is mostly used reportively. Nevertheless, a few in-
stances of inferential evidentiality have also been retrieved from CORGA. In (27),
ó parecer 'apparently' shows an inference from perceptual observation. Nestor's
expression makes up the perceptual basis for the inference. Meanwhile, the new
situation, the future events, and some information that remains implicit are the
basis for the inference in (28). In (29), the speaker/writer infers that the organi-
zation is good on the perceptual basis that this includes a contact network and
regular meetings:

(27) *¿É que hai algún incendio?*
-preguntou Nestor, que, ***ó parecer****, aínda non se   enterara.*
ask.PST.3SG Nestor *who* apparently still   NEG MM know.PST.SBJV.3SG
'Is there a fire? Asked Nestor, who, **apparently**, still didn't know.'

(28) *Quizais a nova situación de Eucrocia, a súa dispoñibilidade no futuro,*
cargaba   ó rapaz   cunha responsabilidade   que, ***ó parecer****,*
charge.PST.3SG the boy   with responsibility   that   apparently
non   estaba   disposto   a asumir.
NEG   be.PST.3SG willing   to take.INF
'Maybe the Eucrocia's new situation, its future availability, charged the
boy with a responsibility that, **apparently**, he wasn't willing to take.'

(29) *Esta organización* ***ó parecer,*** *está   ben dotada   e*
this organization   apparently be.PRS.3SG well equipped.PTCP and
organizada   Dispón dunha rede de contactos en todo o país que
organized.PTCP
se xuntan cada catro meses.
'This organization, **apparently,** is well equipped and organised. It has a
contact network all around the country that meets every four months.'

The adverbial expression *seica* 'apparently' is also used in Galician to indicate inferential meaning (cf. Cidrás 2017). This adverb results from the lexicalization of the first-person singular form of the present verb *sei* 'I know' and the complementizer *ca/que* 'that': *sei ca/que* 'I know that' (Ferreiro 1996: 327, 336). This can be translated into different English units depending on the context: adverbs such as 'apparently' and 'allegedly', constructions with 'seem', 'appear to' or 'look like', and the reportive expression '(it) is said'. Galician grammars only refer to the reportive meaning of *seica* '(it) is said' and, at the same time, with the exception of Rosales's (2005) work, they consider it to be equivalent to adverbs of weak epistemic support (like Engl. *perhaps*, *maybe*). Álvarez et al. (1986: 466) affirm that:

> *seica* and *disque* indicate that the speaker/writer considers the probability of the proposition, yet they are not fully committed to its truth. These forms are commonly used to express judgments that s/he has heard from others when they either cannot or do not want to assure its certainty. (translation is ours; see also *Real Academia Galega Dictionary*)

With the exception of the Cidrás's (2017) and Rosales' (2005) works, the reportive meaning predominates.[5]

The next examples show instances of *seica* 'apparently' in which this expression conveys conceptual inference (30) and perception-based inferential meaning (ex. 31, 32). All the examples convey strong epistemic overtones. In (31, 32), the inference is based on the visible attitude of the participants involved in the events: the man looks closely at the food on the table in (31) and the listener leans and turns her/his head to put the ear to the speaker in (32):

(30) *Ai, Sr. Fiscal,   vostede **seica**   non nos   coñece…!*
      oh Mr. Attorney PRN.2SG   apparently NEG PRN.1PL.OBJ know.PRS.2SG
      'Oh, Mr. Attorney, **apparently** you don't know us…!'

(31) *¿Queres   tomar   algo,   **seica**   tes fame?*
      like.PRS.2SG eat.INF something looks like have.PRS.2SG hunger
      'Would you like something to eat? **It looks like** you're hungry. Aren't you?'

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5 As all of the other Galician grammars, the *Real Academia Galega Dictionary* (1986) describes *seica* 'apparently' *as* an adverb of weak epistemic support. According to this dictionary, *disque* '(it) is said' and *ó mellor* and *tal vez* 'perhaps' are synonyms of *seica* 'apparently'. Cidrás (2017) considers *seica* 'apparently' as an epistemic adverb, not as an evidential, but he acknowledges its inferential and reportive values. For the author, both evidential values are contextual secondary overtones due to pragmatic implicatures.

(32)   *Fiscal:*   *vostede*   *¿**seica***   *non*   *oe*   *ben?*
        attorney   PRN.2SG   looks like   NEG   hear.PRS.2SG   well
        'Attorney**: It seems/it looks like** you don't hear. Do you?'

The following two examples also attest to the relevance of this inferential meaning in its two subtypes. In (33), *seica* 'apparently' encodes an inference from the observation of the results ('I infer that she must have made a commentary since she decided to get rid of the vase') whereas in (34), the conceptual inference originates in the analysis of the woman's attitude (from the interpretation of her reaction, 'I infer that she is not annoyed'). Both examples trigger weak epistemic nuances:

(33)   *Todo o que lles contei e unha visita que meu avó fixo á nosa antiga criada*
      foron dados abondos para que el comezase a presumir un probábel vínculo
      entre o certo influxo negativo que padecía e o vaso chinés.
      Seica   *lle*   *fixo*   *algún comentario*   *á miña nai*
      seems/apparently   PRN.3SG   make.PST.3SG   a comment   to my mother
      sobre a súa conxectura e aquela decidiu desfacerse do floreiro apesar do
      aprecio que lle tiña.
      'All that I told them and a talk of my grandfather with a maid were the information provided so that he started to presume a negative influence of the vase. **It seems that** she made a comment to my mother about her inference so she decided to get rid of the vase despite all the appreciation that she had for it.'

(34)   ***Seica***   *non*   *se*   *amolou*   *porque*   *eu*   *agora*
      seems   NEG   MM   annoy.PST.3SG   because   PRN.1SG   now
      viva   *con Adina.*
      live.PRS.SBJV.1SG   with Adina
      '**It seems that/apparently** she didn't get because I now live with Adina.'

Examples (35) and (36), in the first-person singular, are rather unusual in Galician since the speaker/writer is actually making an introspective conceptual inference about his/her own behavior, with a strong epistemic component. The speaker/writer tries to reasonably explain his/her previous actions and current feelings. In these cases, *seica* would mean 'I presume/suppose/guess' or 'I infer':

(35)   *Unha vez no fogar de Suso e Amelia _perdoa que ata agora non che*
      mencionase os seus nomes,
      seica   *non*   *o*   *fixen*   *porque*   *non*   *os*   *coñeces_*
      I guess   NEG   PRN.SG.OBJ   do.PST.1SG   because   NEG   PRN.PL.OBJ   know.PRS.2SG
      a sorpresa foi maiúscula.

'Once at Suso and Amelia's _sorry I did not mention their names so far, **I guess** I did not do it because you don't know them_ my surprise was great.'

(36) ***Seica*** *teño* *medo, medo tamén disto,* *medo de* *tantas cousas*
I guess   have.PRS.1SG fear   fear of this too   fear of   many things
hai xa tanto tempo.
so long already
'**I guess** I'm afraid, afraid of this too, afraid of so many things so long already...'

8.2.3 *deber* **'must'**

The Galician modal verb *deber (de)* 'must' codes inference based on perception, reasoning, and reportive evidence. The epistemic component is present in all the examples of *deber* 'must' retrieved from CORGA. It is worth mentioning that, unlike Fr. *devoir* 'must', It. *dovere* 'must' and Du. *moeten* 'must' (Squartini 2004; Wiemer 2010), no instances of reportive meaning have been found in the case of Galician *deber* 'must'.

Many authors have stressed the fact that inferentials originate in the need to assign causes to observed situations (Willett 1988: 61). In the Galician examples retrieved from CORGA, the perception-based inference coded by *deber* 'must' is commonly based on overt, explicit evidence introduced by expressions of cause and effect, such as *pra que* 'in order to/so that', *posto que* 'as', *pois* 'then, hence', *porque* 'because' and expressions such as *a xulgar por* 'judging by':

(37) *Penso* *que* *algunha cousa* ***debe*** ***de*** ***existir***
think.PRS.1SG COMP a thing   must.PRS.3SG   PREP exist.INF
pra que a segunda parte do relatorio veña ocupar o lugar da primeira.
'I think that **there must be/exist** a reason for the second part of the story to take the place of the first.'

(38) ***Debeu*** ***de*** ***ter*** ***sido*** *unha fortaleza importante,*
must.PST.3SG PREP have.INF been.PTCP   an important fortress
a xulgar *polos restos das súas murallas.*
judge.INF
'**It must have been** an important fortress, as we can deduce from the remains of the walls.'

(39) *Pero, Matilda* ***debeu*** ***de*** ***sentirse*** *moi compracida*
but Matilda   must.PRS.3SG PREP feel.INF.MM   pleased

por aquela demostración   *posto que*   *aceptara*
that proposal   as   accept.PST.SBJV.3SG
de inmediato o enlace.
at once the engagement
'Yet, Matilda **must have enjoyed** that proposal, as she accepted the engagement immediately.'

(40)   *"Frade, irse han hospedes e comeremolo galo",*
       debe   ***tratarse***   *dunha locución anterga, un dito común*
       must.PRS.3SG   be.INF.MM   an old idiom   a popular saying
       pois tamén a atopamos nunha inxeniosa anécdota que recolleu Paz y Melia.
       because
       '"Frade, irse han hospedes e comeremolo galo", **must be** an old idiom, a popular saying because we also find it in a witty anecdote collected by Paz and Melia.'

In all cases, this inference makes reference to the speaker's/writer's judgment based on perceivable traces which allow her/him to infer that a previous situation must have occurred.

CORGA retrieved a high frequency of cases in which *deber* 'must' is used for inferences based on both personal assumptions and previous knowledge of the world without any explicit evidence. The following examples show these two types of inference:

(41)   *Pola súa banda, o que apetece é explorar nas fronteiras da facticidade humana, alí onde, presumiblemente,*
       xa   ***debe***   ***alumear***   *o reflexo da*   *perenne lús*
       already   must.PRS.3SG   light.INF   the reflection of   the eternal light
       da transcendencia.
       of transcendence
       'On the other hand, what we would like to do is to explore into the borderlines of human factivity where, we presume, the reflection of the eternal transcendence light **must be lightening** already.'

(42)   ***Debe***   ***ir***   *moi vello,*   *pois*   *ten algúns anos máis ca min.*
       must.PRS.3SG   go.INF   very old   since
       '**He must be** getting very old, since he is older than me.'

Example (43) includes explicit mentioning to the basis of the reasoning-based inference *esto fai pensar que* 'this makes one think that':

(43) *Cóntase no relato, e*
  *esto fai   pensar   que   o seu autor **debeu   ser***
  this make.PRS.3SG think.INF COMP   his author   must.PST.3SG be.INF
  persoa moi directamente relacionada   coa igrexa,
  person very directly   connected.PTCP   to the church
  que esta paz se debeu sobre todo á acción intelixente e determinada do
  cabildo.
  'The story tells us, and this suggests that the author **must have been** a
  person directly connected to the Church, that this peace was mainly
  achieved thanks to the intelligent and determined action of the church.'

The examples retrieved from CORGA reveal that *deber* 'must' is mostly based on
perceptually accessible information and reasoning (assumption, knowledge of
the world). Nevertheless, *deber* 'must' is also used with inferences from report —
lin nos periódicos 'I read in the newspapers' in (44), and *según parece* 'apparent-
ly' in (45). However, this meaning is not frequently retrieved from the corpus:

(44) ***Debeu   de   ser   un destacado loitador   porque,***
  must.PRS.3SG PREP   be.INF   an outstanding fighter   because
  atopándome en Cuba lin nos periódicos, en letras grandes, a noticia do seu
  regreso á Habana.
  'He **must have been** an outstanding fighter because, when I was in Cuba I
  found in big letters in the newspapers, the news about his return to Havana.'

(45) *Denantes, **según   parece**, o rapaz   pidiulle*
  before   accordingly   it seems   the boy   ask.PST.3SG.PRN.3SG
  que se fora con él, pero ela non debeu de acatar tal proposición.
  'Before, **apparently**, the boy asked her to accompany him, but she must
  not have accepted such an offer.'

8.3 Reportive expressions

This section discusses the most common forms used to express reportive mean-
ing in Galician: forms derived from verbs and adverbial expressions. The epis-
temic values which are contextually prompted will also be highlighted.

8.3.1 Reportive expressions derived from verbs: *dicir* 'say' and *contar* 'tell'

Verbal expressions derived from the verbs *dicir* 'say' and *contar* 'tell', such as
dise que, *disque* '(it) is said', *din (que)* 'they say (that)' and *cóntase/contan que*

'they tell that' mark reportive meaning in Galician. This meaning is also conveyed by the expressions *ó parecer* 'as it seems', 'apparently', *parece ser que* '(it) seems to be that', 'apparently', *seica* '(it) is said, apparently, it seems' and some expressions derived from the verbs *escoitar* 'hear' and *oír* 'listen to'.

As it is well known, Willett (1988: 96) identifies three main types of indirect hearsay evidence: (i) second-hand evidence (hearsay), where "the speaker claims to have heard of the situation described from a non-direct witness", 'he says'; (ii) third-hand evidence (hearsay), where the speaker claims to have heard about the situation described, but not from a direct witness, "I heard"; "I hear tell"; "(it) is said"; "they say" (impersonal); and (iii) folklore, where the speaker claims that the situation described is part of the oral tradition (fairy tales, mythology, oral literature, proverbs and sayings). Aikhenvald (2004: 141, 179–182) proves with cross-linguistic evidence that the epistemic meaning is a contextual extension of the reported evidential meaning. This is the case of reportive expressions in Galician, since there are many cases of reportive evidentiality with no epistemic connotations.

The verbal forms *din que* 'they say' and *dise que* '(it) is said' can be found in Galician as evidential forms (similar to *disque)*. These markers convey a reportive meaning (type (ii) in Willett's classification) (ex. 46 and 47). Example (47) refers to information from a newspaper, while (48) provides a literal quotation taken from a common saying in Condado, a Galician region. None of these three examples conveys an added value of doubt:

(46)   ***Dise***   *tamén* **que** *Frank, que era*   *máis rápido no*
        say.PRED.3SG.MM also   COMP Frank who be.PST.3SG   COM faster
        manexo   *das armas,*   *deu morte ao seu hirmán.*
        use   with weapons
        '**It is also said that** Frank, who was faster with weapons, killed his brother.'

(47)   *Eiquí* ***dise***   *que*   *era*   *a súa noiva*
        here   say.PRS.3SG.MM   COMP   be.PST.3SG   his girlfriend
        e noutra páxina que era a súa muller.
        'Here **it is said that** it was his girlfriend and on another page that was his wife.'

(48)   *"Coma se tiveran grandes secretos que calar",*
        dise   *con retranca*   *no Condado.*
        say.PRS.3SG.MM   with joke   in the condado.LOC
        'As if they had to keep big secrets", **it is said** jokingly in the County.'

The adverbial expressions *disque* + clause '(it) is said that', 'allegedly', *seica* + clause '(it) is said that', 'allegedly' and *parece ser que* + clause '(it) seems that' denote a clear reportive meaning, excluding the possibility of a quotative reading.[6]

We agree with Rosales (2005) when he states that Galician grammars and dictionaries do not differentiate between *seica* and *disque* '(it) is said', treating both forms as adverbs of weak epistemic support, as if the speaker/writer were not fully committed to the truth of the proposition. Sousa (2012: 86) points to a quantitative difference between the uses of the two forms but does not mention any semantic differences. According to this author, corpus analysis reveals that *seica* '(it) is said' is more generally and frequently used than *disque* '(it) is said' in Galician.[7] Álvarez et al. also mention a particular use of *seica* '(it) is said' in interrogative sentences: "seica means *polo visto* 'apparently' and *parece que* '(it) seems that' in interrogative sentences: *¿Seica me queres tolear, ou?* 'Apparently, you want to drive me crazy, don't you?'; *¿Seica te volves parvo, rapaz?* 'Apparently, you are becoming an idiot, aren't you, boy?'" (Álvarez et al. 1986: 466; translation is ours).[8] On the contrary, *disque* '(it) is said' cannot appear in interrogative sentences since it cannot convey an inferential meaning. The adverbial unit *disque* '(it) is said' stands for *din que* 'they say that' and *dise que* '(it) is said that'.[9] The scope of *disque* '(it) is said' can be broad when it modifies a clause or a proposition. In these cases, *disque* '(it) is said' appears either before or after the clause that it modifies, before or after the verb, or inserted in the clause as a parenthetical marker. The form *disque* '(it) is said' can also modify nominal phrases whenever it precedes or follows these phrases.

Example (49) shows a clear reported meaning without epistemic overtones, which is the most extended use of *disque* '(it) is said' attested in CORGA. In this case, the narrator reports that this is second-hand information, showing no reason to question its veracity.

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6 The exclusion of quotative meaning in Spanish *dizque* '(it) is said' can be found in Kany (1944) and Olbertz (2005, 2007).

7 Sousa (2012), in a study on *disque* '(it) is said', compares the frequency of use of *seica* and *disque* '(it) is said': "*Seica* is used in all Galician dialects all around Galicia whereas *disque* is infrequent in some dialects from the south" (Sousa 2012: 86).

8 Álvarez et al. (1986: 466) affirm that *polo visto*, *polo que parece* and *polo que se bota de ver* '(it) seems' are synonyms of *seica* and *disque* '(it) is said', with non-specified "slight differences" (see also Álvarez and Xove 2002). It is worth noting that *seica* and *disque* '(it) is said' are treated as synonyms again.

9 Section 8.5 shows the diachronic evolution of this adverb.

(49)   ***Disque***   *é*   *unha consecuencia   da situación*
        say.PRS.3SG.MM.COMP   be.PRS.3SG   a consequence   of the situation
        do bloqueo das frontes atlánticas provocadas pola fase positiva da
        Oscilación do Atlántico Norte (NAO).
        '**It is said that** this is a consequence of the stagnation of the Atlantic
        fronts caused by the positive phase of the North Atlantic Oscillation
        (NAO).'

Examples (50) and (51) reveal cases of reportive *disque* '(it) is said that' (type (iii)
in Willet's classification) referring to a past literal quotation introduced by the
verb of saying *dixo* 'he said', without epistemic nuances.

(50)   *"Eppur, si muove" (e sen embargo, móvese _a Terra_),*
        disque   *dixo*   *Galileo   cando a inquisición*
        say.PRS.3SG.MM.COMP   say.PST.3SG   Galileo   when the inquisition
        o   *obrigou*
        PRN.3SG.OBJ   force.PST.3SG
        a renegar das súas teorías encarcerándoo.
        '"*Eppur, si muove*" (and yet it moves _the Earth_), **it is said that** Galileo
        said when the Inquisition forced him to deny his theories, incarcerating
        him.'

(51)   *A aparición   desta novela cadra coa crónica*
        the release   of this novel   coincide.PRS.3SG with the chronicle
        (disque)   *máis crúa*
        say.PRS.3SG.MM.COMP   COM hard
        de 'Norteamérica' en Freedom (Harper Collins) por parte de Jonathan
        Franzen.
        'The release of this novel coincides with the hardest (**it is said**) chronicle of
        'Northamerica' in Freedom *(Harper Collins)* written by Jonathan Franzen.'

The meaning of doubt attributed to *disque* '(it) is said' in Galician grammars is
provided by the context.[10] This epistemic meaning can be observed in (52),
where the speaker/writer expresses uncertainty about the information s/he
reports, due to the fact that the propositional content is closer to the reality of

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10 Sousa (2012: 92) and Rosales (2005: 74–79) share the same idea and present some examples
of *disque* '(it) is said' without epistemic overtones. A very different position is defended by De
la Mora and Maldonado (2015) and Olbertz (2007), who claim that *disque* '(it) is said' tends to
function as an epistemic marker in current Mexican Spanish.

the speaker, who might feel entitled to make a judgment. This is interpreted as such by the hearer.

(52) *Chegou   moi tarde, **disque**,   porque andivera*
      arrive.PST.3SG very late   say.PRS.3SG.MM.COMP because walk.PST.3SG
      polo monte.
      in the mountain.LOC
      'He arrived very late, **it is said**, apparently, because he walked in the mountains.'

No instances of Galician *disque* '(it) is said' with a pure epistemic meaning have been retrieved from CORGA although, as stated by Travis (2006) and Olbertz (2005), Colombian *dizque* '(it) is said' conveys epistemic modality.[11] Cruschina and Remberger (2008: 105–107) compare Colombian *dizque* '(it) is said' with their Galician, Sardinian, Sicilian and Romanian equivalents and explain that

> the labelling function [the epistemic interpretation reported by Travis (2006)] is not easy to find — perhaps even impossible — in the varieties under discussion. It is also not yet clear whether each variety has a genuine dubitative or the dubitative interpretation is due to pragmatic implicatures. (Cruschina and Remberger 2008: 107)

Meanwhile, although infrequently, the adverbial expression *seica* 'apparently' can occasionally take a pure epistemic meaning.

Regarding the marker *seica* '(it) is said' (cfr. Cidrás 2017), the meaning of report referring to the factual content of the utterance(s) with no epistemic overtones, which is equivalent to the expression '(it) is said that', is well attested in the corpus. In the following examples, the speaker/writer does not doubt about the truth of the proposition even if this truth relies on a third-person witness. The epistemic component is excluded in (53): the fact that the undersecretary's grandparents were Galician is not questioned. Doubt is not expressed in (54) either although the speaker/writer lacks information about the new high school program. The same applies to example (55), where the sentence *Segundo informacións dignas de creto* 'According to reliable sources of information' reinforces the veracity of the information.

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11 According to Travis, Colombian *dizque* '(it) is said' has two different values: "The range of use of *dizque* extends from functioning as a purely evidential marker, encoding reported speech and hearsay with a notion of doubt implied in some contexts, to a marker of epistemic modality, encoding extensions of the notion of doubt implied in its evidential use with no reference to the source of information" (Travis 2006: 1269). De la Mora and Maldonado (2015) claim that *dizque* '(it) is said' has a double meaning because it functions as an epistemic adverb due to the loss of its evidential function. A different position is defended by Miglio (2010).

(53) *Apareceu   o subsecretario, que   **seica**   era*
appear.PST.3SG   the secretary   who   is said be.PST.3SG
neto   de galegos,   pero   iso non me axudou moito.
grandson   of Galicians   but
'The undersecretary, who was the grandson of Galicians, **it is said**, appeared but that did not help me much.'

(54) *O novo Bacharelato   **seica** vai   ter   unha materia*
the new School Program   is said go.PRS.3SG   have.INF   a subject
chamada Ciencias para o Mundo Contemporáneo, na que entrará o cambio climático.
'The new high school program — **it is said** — is going to have a subject called Science for the Contemporary World, which will address the climate change.'

(55) *Celulosas de Pontevedra*
seica,   *segundo   informacións   dignas de creto,*
is said   according to   information   reliable
non ten pagada a tasa obrigatoria que conleva o traslado de domicilio social.
'Pontevedra Cellulose, currently Empresa Nacional de Celulosas, **it is said,** according to reliable information, **that** has not paid the mandatory fee that involves the transfer of the registered office.'

Instances of reportive *seica* '(it) is said' with epistemic contextual overtones were also retrieved from the corpus. When *seica* '(it) is said' appears parenthetically, as in (56 and 57), the speaker/writer reinforces, on purpose and sometimes using a particular intonation, that the proposition is based on an external source of information. Besides, the speaker/writer does not show commitment to any of the opinions given. This reinforcement allows the speaker/writer to take some distance from the veracity of the propositional content:

(56) *A evidencia mostraba que o chapapote,*
*na vez de   solidificarse, como **seica**   preveron*
rather than   solidify.INF   COM   apparently   predict.PST.3PL
algúns científicos,   aumenta
some scientists.SBJ   swell.PRS.3SG
de volume coma se fose un merengue negro batido polas ondas e correntes mariñas.
'Evidence proved that tar, rather than solidifying as, **apparently**/it seems that some scientists predicted, swells like a black meringue beaten by waves and currents.'

(57)   *Sandra Cisneros é,*   ***seica,***   *unha autora de éxito*
       Sandra Cisneros be.PRS.3SG   apparently   an author   bestselling
       nos Estados Unidos
       in the United States.LOC
       célebre por tratar temas feministas no ámbito da minoría chicana.
       'Sandra Cisneros is, **apparently**, a bestselling author in the United States,
       famous for treating feminist issues in the field of chicano minorities.'

As we have mentioned above, *seica* may occasionally function as a pure adverb of weak epistemic support equivalent to the adverbs maybe and perhaps. To show this modal meaning, we can compare examples (58) and (59). In (58), parenthetical *seica* is ambiguous between a reportive ('allegedly') and a pure epistemic meaning ('perhaps'). On the contrary, it does not take a reportive evidential meaning in (59):

(58)   ***Seica,***   *os buratos negros non eran*   *tan negros*
       allegedly/perhaps   the holes black   NEG be.PST.3PL   COM black
       coma   *mostraban*   *os modelos teóricos.*
       COM   show.PST.3PL   the models theoretical
       '**Allegedly**/**perhaps** the black holes were not as black as the theoretical
       models showed.'

(59)   *Ponte, Viqueira, Aleixandre Bóveda e Vicente Risco son citados como*
       grandes verdades obxectiva, mártires, profetas, Castelao tamén,
       mais ***seica***   *no fundo, pasan*   *eles*   *todos*
       but   perhaps   ultimately pass.PRS.3PL   they   all
       por   *pouco*   *máis* *que*   *reliquias mitificadas.*
       PREP   little   COM   COMP   antique mythologized.PTCP
       'Ponte, Viqueira, Aleixandre Boveda e Vicente Risco are mentioned as
       objective big truths, martyrs, prophets, but **perhaps** ultimately, they all
       are, Castelao as well, little more than antiques converted into myths.'

In (59), *seica* does not refer to any source of information, yet it expresses the speaker's/writer's personal doubt about the truth of the proposition. This expression of doubt is reinforced by the adversative particle *mais* 'but' and the adverbial expression *no fundo* 'ultimately'.

The markers which are not fully integrated into the structure of the sentence allow the speaker/writer to take a stronger personal epistemic distance and avoid commitment.[12] *Seica* is parenthetical in (59) and in (58), where it is also fore-

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12 It is worth mentioning Wiemer's hypothesis (2010: 115) concerning the form of the 3rd person singular present indicative of the SEEM/APPEAR-verbs in some European languages: "(…)

grounded at the beginning of the sentence. Both positions stress the part of the speaker/writer because an utterance separated from the reported clause is purely attributable to the speaker/writer. Overall, the speaker/writer has fewer chances to express a clear doubt about the reliability of the information when the adverb *seica* is fully integrated into the structure of the sentence, as we saw in (54).

8.3.2 Reportive expressions derived from the verb *parecer* 'to seem'

Reportive meaning is mainly expressed in Galician by the adverbial expression *ó parecer* 'apparently', usually in parenthetical position, with an explicit evidence in (60) — *explicaron algúns veciños* 'some neighbors explained' — and using the impersonal *sábese* '(it) is known' in (61):

(60) *Económicamente – explicaron   algúns veciños –   o alcalde*
      economically   explain.PST.3PL some neighbors   the mayor
      está   ligado   a   unha inmobiliaria
      be.PRS.3SG link.PTCP   PREP   a property development company
      na que,   ó parecer, participan   un cuñado,
      in which   apparently participate.PRS.3PL a brother-in-law
      o delineante do axuntamento e outro concellal.
      'Economically – some neighbors explained – the mayor is linked to a
      property development company in which, **apparently,** a brother-in-law, a
      draughtsman at the County Offices, and another councilor are involved.'

(61) *Sábese,   ó parecer, que   o morto   se   trata*
      know.PRS.3SG.MM   apparently COMP   the dead MM   be.PRS.3SG
      da mestra nacional
      a civil servant teacher
      do grupo Saavedra Landeira, desta vila, dona Carme Iglesias Pombeiro.

This allows for a careful hypothesis saying that reportive meanings correlate with the least possible integration of paradigmatically isolated verb forms into clausal syntax, whereas inferential functions of the same units are available if the respective unit still functions as a predicate with a sentential argument in a syntactically definable dependency relation". This hypothesis is not at odds with what we suggest here. A more in-depth study of the subject would be necessary to verify whether the parenthetical reportive expressions include an inherent epistemic meaning or they even exclude the evidential meaning in favor of epistemic values (as for *disque* '(it) is said' cf. Olbertz 2005, 2007; De la Mora and Maldonado 2015).

'It is known that, **apparently,** the deceased person is a national civil servant teacher from the Saavedra Landeira group of this village, Mrs.Carmen Iglesias Pombeiro.'

It is also common to find *ó parecer* '(it) seems' without an explicit evidence. In all cases, with or without the explicit evidence or basis of the reportive meaning, parenthetical *ó parecer* '(it) seems' is used as a mitigating hedge marker. Example (62) lacks this overt evidence:

(62) *Cando soubeches que a madrastra de Isabel*
aínda tiña   máis fortuna ca ela   e   que,   ó parecer,
still   have.PST.3SG COM fortune COM PRN.3SG and COMP apparently
estaba   enferma de morte, decidiches   casar   con ela
be.PST.3SG sick   of death decide.PST.2SG marry.INF with PRN.3SG
sen nin sequera coñecela.
'When you realised that Isabel's stepmother was still wealthier than her and that, **apparently**, she was going through a deadly disease, you decided to marry her, without even knowing her.'

Concerning the expression with *parecer* 'to seem', the construction *parece que* '(it) seems that' + clause can also show a reportive meaning without epistemic overtones as in (63), where the speaker/writer knows that the PGSD (a political party) did not attend the meeting:

(63) *Mesmo na xuntanza onde se apresentara a posíbel creba do Consello*
parece   que   non asistíu   o PGSD,
seem.PRS.3SG COMP   NEG attend.PST.3SG the PGSD
delegando na UPG o seu voto.
'Even in the meeting where the possible bankruptcy of the Board was presented, **it seems that** the PGSD didn't attend, delegating their vote to UPG.'

In (63), the proposition can be rephrased as '(it) is said that the PGSD party did not attend the meeting and, as a result and proof of this, the PGSD delegated their vote'. It is easy to infer that the PGSD party did not attend the meeting because the next sentence affirms that the party delegated their vote as a consequence of their absence.

Reportive meaning can be also conveyed by *parece ser que* '(it) seems to be that' (cfr. Cornillie 2007b: 116)[13]. The reportive value in (64) is based on previously reported information with which the speaker/writer disagrees.

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13 Cornillie (2007b: 119) shows that in Spanish *parece ser que* '(it) seems (to be) that' the inference comes from reasoning rather than from perception, visual or auditory evidence. According to Cornillie (2007b: 120): "The readings of 'parece que' '(it) seems that' and 'parece ser que'

(64)   *Entrevistador: A túa condición de fillo único, ¿marcoute dalgún xeito?*
       Entrevistado: Conscientemente non.

Parece	***ser***	***que***	*os fillos únicos*	*teñen*
seem.PRS.3SG	be.INF	COMP	only children	have.PRS.3PL

unha determinada actitude	*diante a vida,*
a particular attitude	to life

pero eu non lle atopo nada especial á situación.
       '– Being an only child affected you somehow?
        – Not consciously. **It seems (to be) that** only children have a particular
       attitude to life, but I did not find anything special in the situation.'

Numerous instances or reportive *parece ser que* '(it) seems to be that' without
epistemic overtones have been retrieved from CORGA. No epistemic overtones
are triggered in (65) because (a) the time of the strike had been decided before-
hand so that people knew about it and the speaker/writer had heard about it;
(b) the speaker/writer realizes a posteriori, thanks to perceptual data, *como ve*
'as you see', that nothing has happened. In (66), the speaker/writer does not
take any stance regarding the veracity of the proposition because s/he merely
transmits the information that s/he has been given by an expert (a doctor):

(65) | ***Parece*** | ***ser*** | ***que*** | *o golpe* | *íase* | *dar* |
       |---|---|---|---|---|---|
       | seem.PRS.3SG | be.INF | COMP | the strike | go.PST.3SG.MM | give.INF |

       onte ou antonte, pero, como ve, non acontecéu nada.
       '**It seems (to be) that** yesterday or the day before yesterday was the time
       to strike, yet, as you see, nothing has happened.'

(66) | ***Parece*** | ***ser*** | ***que*** | *o seu pasamento* | *foi* | *debido* |
       |---|---|---|---|---|---|
       | seem.PRS.3SG | be.INF | COMP | his death | be.PST.3SG | due.PTCP |

       a un veneno.
       to poison
       '**It seems (to be) that** his death was due to poison.'

In (65) it is also worth noting that *parece ser* '(it) seems to be' can be back-
grounded to the end of the sentence without losing its meaning: *o golpe íase dar
onte ou antonte, parece ser* 'today or yesterday was the time to strike, it seems
(to be)'. This confirms Wiemer's (2010) hypothesis that reportive meanings are
aligned with the least possible integration into clausal syntax. Moreover, if we

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'(it) seems to be that' display a different combination of hearsay and inference". With 'parece
que', both reported information and various types of inferred knowledge can be found whereas
inferences are restricted in the case of 'parece ser que'. To avoid inference from visual or audi-
tory evidence, the speaker/writer can insert *ser* 'to be' between *parecer* 'to seem' and *que* 'that'.

use the expression *parece que* '(it) seems that' without the infinitive form *ser* 'to be', this expression can encode two different meanings based on the context. In (66) in a context with a policeman or a doctor at the scene of the events, looking at the visible traces, we obtain a reading of perception-based inference from results with contextual epistemic overtones. Nevertheless, a second reading would unveil an indirect indifferent inference, given that we cannot discriminate between inference from report 'I infer from all the information that I have been told' and a clear reportive meaning '(it) is said'.

8.3.3 Reportive expressions derived from verbs: *escoitar* 'listen to' *and* *oír* 'hear'

Galician reportive expressions comprise different forms of verbs of direct perception, such as *escoitar* 'listen to' and *oír* 'hear' in the first singular and plural, and the third impersonal singular form: *escoito que*, *oio que* 'I hear that', *óese* '(it) is heard', *teño oído que* 'I have heard that', *temos escoitado que* 'we have heard that', *téñolle escoitado que* 'I have heard somebody say that', *teño escoitado de boca de* 'I have heard somebody speak', *escoitamos dicir que* 'we hear somebody say that' and *escóitase dicir que* '(it) can be heard somebody say that'. All of these expressions can take a reportive meaning because the speaker/writer can be a witness of the specific source of information and provide such a source (TV channel, radio, or newspapers). However, not all the instances retrieved from the corpus convey epistemic overtones because they tend to focus on the origin of the information rather than on its veracity.

(67) *Todo o contrario, aínda que xa*
      teño   **oído**   **que**   *el*   *é*   *unha persoa*
      have.PRS.1SG   hear.PST.PTCP   COMP   PRN.3SG   be.PRS.3SG   *a person*
      moi amable.
      very kind
      'On the contrary, although **I have already heard** that he is a very kind person...'

In (67), the adverb of time *xa* 'already' reinforces the reiterative meaning of the report. Álvarez et al. affirm that "*ter* + past participle, when fully grammaticalized as an auxiliary verb, has a reiterative aspectual value" (Álvarez 1986: 414).

The first-person singular and plural of present *escoitar* 'listen to' and *oír* 'hear' need a prepositional phrase introducing the source of the information reported to convey reportive meaning under the complementation pattern con-

sisting of perception verb plus finite complement clause. The evidentials following these patterns include prepositional phrases introduced by *en* or *na* 'in' whenever the intention is to provide a more overt explicit evidence of the source of information.

(68) *Todos* **temos** **escoitado** *algunha vez* *en conversas*
all   have.PRS.1PL hear.PST.PTCP   sometimes   in conversations
observacións da xente *e do noso arredor,* **que**
observations of the people   of our around   COMP
o bo humor é a mellor chave para unha boa saúde e a mellor das axudas
para unha boa recuperación naqueles individuos que padecen...
'**We all have heard** on some occasions, in conversations and observations of the people around us, that humor is the key to a good health and the best support for a good recovery in individuals with...'

(69) **Escoito** *na radio* **que** *en Francia*
hear.PRS.1SG on the radio COMP   in France.LOC
o Ministerio de Educación prepara un plan para afortalar o vocabulario
dos seus alumnos e alumnas dende a educación infantil.
'**I heard** on the radio **that** the French Ministry of Education is preparing a plan to reinforce the vocabulary of students from kindergarten.'

The patterns PV+DO+NFV (perception verb + direct object + non-finite verb) and PV+DO (perception verb + direct object) are also used to make the source of the evidence explicit in reportive evidentials, as in (70):

(70) *En moitos lugares* **óese** *a queixa de* *que*
in many places.LOC hear.PRS.3SG.MM the complaint COMP
nalgunhas celebracións litúrxicas se oen cancións que, xa sexa pola
mesma música ou polos textos, non son as adecuadas para a celebración
litúrxica, aínda que poidan servir para...
'In many places **one can hear** the complaint that some liturgical celebrations include songs which, either by the same music or the lyrics, are not suitable for liturgical celebration, although they may serve to...'

Parenthetical prepositional expressions such as *segundo escoitamos* 'as we heard' and *polo que teño escoitado* 'from what I've heard' are also used in Galician to express reportive evidentiality as revealed by the following examples retrieved from CORGA:

(71) *Dicir ten que o anfitrión de ouro do complexo hoteleiro Ghaleb Jaber*
Ibrahim estivo ben preto de todos eles asegurándose de que ata o máis
mínimo detalle estivese ó gusto dos comensais que,

> ***segundo escoitamos,*** *saíron* *encantados*
> according to hear.PRS.1PL leave.PST.3PL delighted
> *e con gañas de repetir.*
> with eager of repeat.INF
> 'I have to say that the host at the luxury hotel complex Ghaleb Jaber Ibrahim was very close to all of them ensuring that even the smallest detail was of the taste of dinner guests who, **as we heard**, left delighted and eager to repeat.'

(72) *E por riba,* *creo,* ***polo que teño escoitado,***
     and above all think.PRS.1SG from COMP have.PRS.1SG hear.PST.PTCP
     que as experiencias que tiveron con persoas do exterior foron do peor que un poida imaxinar.
     'And above all, in my opinion, **from what I've heard**, the experiences that they had with people from abroad were the worst one can imagine.'

(73) *Vostede* *tampouco é* *socio,* ***polo que escoito.***
     you.2SG either.NEG BE.PRS.2SG *partner* from COMP hear.PRS.1SG
     'You are not a partner either, **from what I hear/so I've heard.'**

Similar expressions are found with *oír 'hear'*:

(74) *Mi má...* ***polo que oio*** *vai* *ser*
     my mother from COMP hear.PRS.1SG go.PRS.3SG be.INF
     unha voda de moito repenique.
     a wedding of very ringing
     'My God... **from what I hear** it is going to be a very ringing wedding.'

8.4 Indirect indifferent evidential expressions

In the light of the models developed by Wiemer and Stathi (2010) and Marín-Arrese (2013), some of the evidential units analyzed in the preceding sections – *seica*, *ó parecer*, *parece ser que* and *parece que* – are to be considered as intermediate evidentials: between hearsay and inferential. This means, as indirect indifferent or "non-firsthand information" evidential markers (Aikhenvald and Dixon 2003; Aikhenvald 2004).

It should be noted that Wiemer points to the connection between hearsay and inference and between indirect indifferent meaning and the verb SEEM:

> It is no accident that all examples given contain units deriving from verbs with the meaning 'seem, appear'. Other examples include Spanish *al parecer* 'apparently' (Cornillie

2007a: 34–36), Italian *a quanto pare* 'apparently' (Squartini 2008: 932), Polish *zdaje się* 'it seems' (Wiemer 2006: 53–59, 2008: 356–358), and English *it seems* (Chafe 1986: 268). Characteristically, all these units seem to have acquired an hearsay function via inferential, and most of them can be defined as undifferentiated markers of indirect evidentiality. (Wiemer 2010: 101)

It is also noteworthy that Galician presents three ambiguous expressions related to the verb 'seem'. For instance, the expression *parece que* '(it) seems that' can acquire either a reportive or an inferential meaning in ex. (75) and (76) because the context allows both interpretations:

(75) *Ó principio* **parece** **que** *nin se deron de conta*
in principle seem.PRS.3SG COMP NEG MM realize.PST.3PL
e despacharon lignito coma se fose "caolín".
'In principle **it seems that** none of them realized that they were dispatching lignite for "kaolin" 'cocoa'.'

(76) **Parece** **que** *a nova marcha das cousas motivou*
seem.PRS.3SG COMP the new situation of things cause.PST.3SG
a dimisión de dous dos profesionáis
resignation of two employees
que máis directamente traballaron con Mariñas nos últimos tempos.
'**It seems that** the new situation caused the resignation of two of the employees who worked directly with Mariñas in recent times.'

The two examples can be paraphrased as either '(it) is said that' or 'I infer that'. The speaker's inference can be based on the speaker/writer's information and third parties' words. But also, the sentence reveals the meaning '(it) has been inferred', which implies a double interpretation: 'I infer' vs. 'It has been inferred'. This leads to a threefold ambiguous reading: '(i) 'I infer from all I know and from what they say', (ii) 'it is said', and (iii)' it has been inferred'. The latter focuses not on what others say, but on the fact that a conclusion has been reached thereon.

Another indirect-indifferent expression is *parece ser que* '(it) seems to be that'. The example (66) is repeated as (77) for the sake of clarity:

(77) **Parece** **ser** **que** *o seu pasamento foi debido*
seem.PRS.3SG be.INF COMP his death be.PST.3SG due.PTCP
a un veneno.
to poison
'**It seems (to be) that** his death was due to poison.'

As Wiemer (2010: 101) explains "it is to be expected that the lack of discrimination between inferential and reportive functions is the result of a slow transition from inferential to reportive meaning. In some cases, this shift ends with a stable, non-detachable hearsay component of the meaning of the respective unit". The need to "ground one's inference on other people's assertions", as pointed out by Wiemer (2010: 101), seems to be a plausible pragmatic mechanism favoring such a transition.

The marker *ó parecer* 'allegedly, (it) seems that' can also be interpreted as either reportive or inferential. The speaker/writer infers from contextual information or has been told that she does not have a father (78). Meanwhile, the speaker/writer deduces from contextual information or has been told that their friends had not read the newspapers in (79):

(78) *Pero el insistiu e faloulle de tantas cousas e promesas, que ela rematou cedendo e presentándolle á nai*
xa que   *pai*   ***ó parecer***   *non*   *tiña.*
because   father   it seems that   NEG   have.PST.3SG
'But he insisted and spoke of so many things and promises that she ended up yielding and introduced her mother to him because **allegedly/it seems that** she did not have a father.'

(79) *Eu non chamei, o meu home non chamou, a rapaza non podía chamar,*
os nosos amigos,   ***ó parecer***   *non*   *leran*   *o periódico.*
our friends   apparently   NEG   read.PST.3PL   the newspaper
'I did not call, my husband did not call, the girl could not call, our friends, **apparently**, had not read the newspaper.'

Finally, *seica* 'allegedly, it seems' shows this indirect indifferent meaning frequently. In example (80), the context allows a double interpretation: either 'the speaker infers from what the woman is saying that she could not have children before', or '(it) is said that the woman could not have children before.'

(80) *De feito a muller falaba dun verdadeiro milagre,*
seica   *non*   *puidera*   *ter*   *fillos*   *antes.*
allegedly/it seems   NEG   can.PST.3PL   have.INF   children   before.
'In fact, the woman spoke of a miracle, **it seems that** she could not have children before.'

Example (81) shows how *seica* 'allegedly, it seems', like *parece que* '(it) seems that' above, can take three alternative values: (i) '(it) is said that', 'allegedly', (ii) 'from all I know and have heard I infer that', and (iii) '(it) has been inferred, people have inferred'.

(81)   ***Seica***   *a razón*   *do "smog" eran*
allegedly/it seems   the reason   for smog be.PST.3PL
os fumes das calefaccións e lareiras mantidas a carbón que xeneraban esa particular contaminación de fume e neboeiro que ambientaba os truculentos ambientes de Sherlock Holmes.
'**Apparently/Allegedly/It seems that/It can be inferred that** the reason for the smog was the smoke of the coal powered heating devices and fireplaces that generated this particular pollution of smoke that set the dark atmosphere of Sherlock Holmes' scenarios.'

8.5 Diachronic remarks on evidentiality in Galician

The diachronic evolution of Galician evidentiality has remained unstudied in the historical grammars to date, with the exception of the Cidrás (2017) work on *seica* '(it) is said, apparently, it seems'. Further research would be necessary to trace this evolution in order to examine the semantic values of the evidential markers under analysis diachronically. It would be important to revisit medieval documents from 1182, when the first Galician *cantiga* (medieval lyrical composition) was dated, to the end of the 15th century, when the written production in Galician became virtually inexistent until the 19th century and then, from the 19th century until now.

As mentioned in Subsection 8.1.2, only a few remarks on *dizque* '(it) is said' and *seica* '(it) is said, apparently, it seems' can be found in the existing literature. It is known that Old Galician *dizque* '(it) is said' comes from the third singular present form of Lat. *dicere* (*dicere > dizer > dicer*) 'say' and the complementizer *que* 'that' ('s/he says that') followed by a subordinate clause. Galician-Portuguese *disse que* '(it) is said' and *dizê que* '(it) is said' (with formal variation) are frequent in Medieval literary prose such as 'The Milagros de Santa María and Miragres de Santiago', dated during the reign of Alfonso X (1221–1284), when the apocopated personal form *dizque* '(it) is said' was also frequent. According to Miglio (2010: 8), from the 1400s onwards, the two forms crystallised into a fixed collocation, being increasingly written as one word with a low agentive subject (often inanimate, such as 'the story', 'the document'), or with a subject difficult to infer from the context.

Nevertheless, the Galician-Portuguese language continuum began to dissolve with the independence of Portugal after the Aljubarrota Battle in 1385. After the 16th century, instances of written Galician can hardly be found until the *Rexurdimento* 'resurgence', in the 19th century. Meanwhile, Spanish *dizque*

'(it) is said' was still in use at the beginning of the 16th century to be finally stigmatized one century later. As explained by Miglio (2010: 8),

> [t]he two contrasting views of its appropriateness suggest a shift in the focus of *dizque* '(it) is said' from a cultivated register to a more oral, informal and provincial usage in 17th-century Spain, which is the last century of the Colonial period (1500–1800) in which *dizque* '(it) is said' appears documented in written texts with a certain frequency.

Regarding *seica* '(it) is said, apparently, it seems', this marker has its origin in the first-person singular of *saber* 'know' (Lat. *sapere*) and the medieval conjunction *ca* (currently *que* 'that': *sapio > sabio > *sabeo* (Vul. Lat) > *saio > sei* (Ferreiro 1996: 336, 327). The verb of knowledge, *sei* 'know', arises with a non-assertive dubitative value due to the context in the second half of the 14th century (Cidrás 2017: 7–8). The first appearance of the form *seica* '(it) is said, apparently, it seems' substituting *sei que* 'know that' occurs in the 17th century, in a document by Feixoo ('Entremés famoso', 1671), denoting inferential meaning in a dialogical interaction (Cidrás 2017: 8). The first non-dialogical example of *seica* '(it) is said, apparently, it seems' dates back to 1845.

Unfortunately, only a few aspects regarding the etymological evolution from Latin into Galician can be mentioned for the remaining evidential units under analysis in this chapter: *ver* 'see', *parecer* 'seem', *semellar* 'seem', *debere* 'must' and *seica* '(it) is said, apparently, it seems'.

The verb *ver* 'see' comes from Lat. *vidēre* and the Indo-European stem *-weid*: *vidēre > veer > ver* (Ferreiro 1996: 111). The first-person singular *vexo* 'I see' derives from *video > vejo > vexo* (Ferreiro 1996: 342).

The verb *parecer* '(it) seems' derives from Lat. *parēre*, more specifically from its vulgar form *parescere > parescer > parecer*. Meanwhile, *semellar* 'seem' comes from Lat. *similar > semellar*, and the verb *deber* 'must' has its roots in the Lat. verb *debēre > deber*.

8.6 Conclusion

This study has aimed at analyzing the system of evidential expressions in Galician with a focus on the differences in the use of each of its evidential units. This system presents certain characteristics in Galician which are common to other European languages. As an example, Galician does not have a morphological evidential system but comprises certain lexical units and evidential strategies, such as the imperfect and the future tenses or the conditional mood.

Our analysis has mainly revealed that there is a clear-cut division between the indirect evidential markers that allow an indiscriminate expression of infer-

ential and reportive meaning (indirect indifferent evidentials), and the indirect evidential markers whose meaning needs to be inferential or reportive. An inferential value is unequivocally expressed by *deber* 'must', *vese que* '(it) can be seen that', *polo que vexo* 'according to what I see', *aparentemente* 'apparently' and *semella* '(it) seems' – complement taking and infinitive – whereas *disque* '(it) is said', *dise que*, *din que* 'they say that' and *polo que din* 'according to what they say' are restricted to reportive meanings.

In the light of the examples examined, we have claimed the existence of a relationship between some – though not all – constructional patterns and their evidential meanings. We have suggested a tendency of *parece que* '(it) seems that' to reportive readings, whereas *parece* + INF '(it) seems to' denotes an inferential meaning. Meanwhile, the constructions *semella que* '(it) seems that' and *semella* + INF '(it) seems to' can only have an inferential interpretation. The double function of perception verbs is also worth noting, as these verbs can either keep their lexical meaning and their syntactic properties or function as evidentials. Also, we have suggested that the complementizer constructions *vexo que* 'I see that' and *vese que* '(it) is seen that' allow for an inferential reading, whereas the constructions *vexo* + INF 'I see to' and *vese* + INF '(it) is seen to' can either convey a direct visual evidential meaning or fall beyond the scope of evidentiality. Further research is necessary.

As for the relationship between epistemic modality and indirect evidentiality – besides the modal auxiliary *deber* 'must', which is inherently epistemic – it is worth noting that a pure evidential meaning can be identified in some markers. As an example, this study has revealed that the reportive expressions resulting from *dicir* 'say', *escoitar* 'hear', *oír* 'listen to' and the 'according to' equivalents do not evoke any epistemic qualification of the proposition. In some other cases, it is hard to disentangle the evidential meaning from some added pragmatic epistemic nuances.

The remaining reportive units – *disque* '(it) is said that'; *seica* '(it) is said'; *ó parecer* '(it) seems', etc. – and inferential markers – except for the verb *deber* – do not inherently convey epistemic overtones. However, they may induce epistemic overtones in contexts where the speaker/writer has personal information about the reported events.

We have pointed out that Galician differs from other Romance languages regarding its adverbs: *seica* '(it) is said' and *disque* '(it) is said'. The latter can be found in other Romance languages such as Italian, Sardinian, French, Brazilian Portuguese, Mexican, Bolivian and Colombian Spanish (Cruschina and Remberger 2008). The former, *seica* '(it) is said', is the most idiosyncratic marker in Galician. The results from the corpus reveal that *seica* can be regarded as a

marker with a broad spectrum of meanings, from non-evidential epistemic to purely reportive meaning. Its position in the sentence is to be considered an important factor in this respect. Also, Galician has two SEEM-verbs — *semellar* and *parecer* '(it) seems' — which are similar, though not equivalent, to their Catalan, Italian, and French counterparts.

Abbreviations in glosses (not included in LGR)

COM	comparison marker
CONJ	conjunction
MM	middle marker
PRN	pronoun

Corpus and dictionary

CORGA: Corpus of reference of Galician language. http://www.corpus.cirp.es/corga (checked 29/02/2018)

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Elena Domínguez Romero, Victoria Martín de la Rosa and
Viviane de Moraes Abrahão

9   Evidentiality in Portuguese

9.1   Introduction

The aim of this paper is to provide a descriptive overview of the linguistic means
that are employed for the encoding of evidentiality – specifying the source of
information on the basis of which the speaker/writer feels entitled to make a
claim (Anderson 1986) – in Portuguese. Evidentiality is conceived here as a
conceptual domain which is expressed not only by grammatical morphemes (as
required by Aikhenvald 2003, 2004), but also by lexical means and expressions
that can be considered more or less grammatical on a lexicon-grammar cline
(Wiemer and Stathi 2010: 276). Within this conceptual domain, evidentiality is
distinguished from epistemic modality. According to De Haan (2005: 380), the
former asserts the evidence whereas the latter evaluates it.

The chapter is organized as follows: section 1 offers information about the
corpus of analysis and a panoramic view of evidentiality in Portuguese. Section
9.2 describes inferential markers derived from SEE-verbs and SEEM-verbs as well
as the modal auxiliary *deber* 'must', and Section 9.3 discusses reportive expres-
sions. Section 9.4 is devoted to some cases of indirect-indifferent marking. Sec-
tion 9.5 looks into the use of future and conditional forms as they are typically
used in Romance languages to indicate evidential values. Finally, Section 9.6
adds some remarks on diachrony. Conclusions are drawn in Section 9.7.

9.1.1   The corpus

Data were retrieved from the *Reference Corpus of Contemporary Portuguese*
(hereafter CRPC) of the Centre of Linguistics of the University of Lisbon, using
CQPWeb (version 3.0.12, 2013) in the period from February to September 2015,
http://alfclul.clul.ul.pt/CQPweb/crpcfg16/,   http://www.clul.ul.pt/en/research
teams/183-referencecorpus-of-contemporary-portuguese-crp. The CRPC is a
large electronic corpus that contains over 311 million words and reflects both
regional and national varieties of Portuguese, including several types of written
texts such as newspapers, books, periodicals, Parliament sessions, Supreme
Court verdicts, leaflets, correspondence and miscellanea. The corpus contains
over 309 million words of written texts and 1,6 million words of spoken record-
ings, although only the written subpart can be searched online (Généreux et al.

2012). Because of its vast extension, a reduced version of the corpus was created, EvidentialsPT. Only recent European Portuguese journalistic texts were selected in EvidentialsPT, resulting in 368 written texts and 177,028 words. This facilitated the search process and the subsequent analysis of results in the present study.

9.1.2 A panoramic view of evidentiality in Portuguese

Aikhenvald (2004) claims that only a quarter of the languages of the world present grammatical evidentiality while the rest rely on lexical means which may, in varying degrees, have undergone a process of conventionalization. This is the case of Portuguese, where evidentiality is mostly coded by lexical means. In this line, we can mention the works carried out by authors such as Casseb-Galvão (2001), Dall'Aglio-Hattnher (2001), Gonçalves (2003), Carioca (2005, 2009), Vendrame (2005, 2010), Lucena (2008) and Santos (2008).

The early work of Dall'Aglio-Hattnher (2001) established a typology of evidentials for Portuguese which differentiated between direct and indirect evidentiality. The author stated that, contrary to other languages with grammatical evidentiality marking, Portuguese does not always require specific evidential markers to express direct evidentiality. Dall'Aglio-Hattnher's typology (2001) was revisited by Vendrame (2005) who, following Botne (1997), pointed out three sources of information – speaker, background knowledge and sources other than speaker and background knowledge.

Languages such as Portuguese, which express evidentiality through lexical means, tend to present one lexical item to express both the source of evidence and the degree of commitment on the part of the speaker. Research is extensive in this regard. Most authors (Dall'Aglio-Hattnher 1995; Casseb-Galvão 2001; Vendrame 2005; Carioca 2005, 2009; Lucena 2008, among others) tend to agree with Nuyts (1993, 2001), who considers evidentiality (source of information or mode/way of accessing the information) and epistemic modality (as the attitude of the speaker towards the content of the proposition uttered) to be completely different domains. Following De Haan (1999), some of these scholars (Casseb-Galvão 2001; Dall'Aglio-Hattnher 2001) even claim that, from a cognitive point of view, evidentiality and modality are different to the extent that evidentiality precedes and determines epistemic modality because information needs to be known prior to judgment.

9.2 Inferential expressions

SEEM and SEE-verbs relating to the speaker's/writer's deductive reasoning process will be accounted for in the following subsection.

9.2.1 Markers derived from SEEM-verbs

In Portuguese, the closest forms to the crosslinguistic unit SEEM are a number of verbal expressions such as *parece* '(it) seems', *parece que* '(it) seems that', *parece ser que* '(it) seems to be that', *certo parece ser que* '(it) seems to be true that', *ao que parece* '(it) seems', *ao parecer* '(it) seems', *aparentemente* 'apparently', *pelo que parece* 'for what seems', and *segundo as aparências* 'for what seems'.

The inferential evidential meaning expressed in the examples below results from inferences on a perceptual, cognitive or reportive basis. Vendrame (2005) points to the consensus on the idea that the speaker/writer shows himself/herself as the source of knowledge even though his/her degree of commitment towards the information given is low by using 'seem'.

9.2.1.1 Perceptual

(1)   [...] <u>*na capa de revistas de celebridades*</u>*, em clínicas de desintoxicação –
adoptando,*
segundo as   aparências
according to   appearances
todas as armadilhas do estrelato moderno de Hollywood.
'[...] <u>in the cover of celebrity magazines</u>, in detoxification clinics – adopting, **as (it) appears**, all the traps of the modern stardom of Hollywood.'

Segundo as aparências 'for what seems' usually takes a parenthetical use and conveys a perceptually based inference, referring to the information that can be obtained from the cover of celebrity magazines. However, *pelo que parece* 'for what seems' can be followed by either an infinitive expression or a clause. In both cases, an explicit perceptual inference seems to be the origin of the resulting evidence. Hengeveld and Mackenzie (2008: 177) explain the difference between perceptual evidence and inference based on perceptual evidence using the following example: 'I saw him leave/I saw that he left'.

9.2.1.2 Conceptual

(2) *Que o euro vai ser uma realidade em 1999,*
     parece   *não haver*   *dúvidas.*
     seem.PRS.3SG   NEG have.INF   doubts
     As certezas já não são tão claras quanto à entrada de Portugal para o
     "clube" da moeda única daqui a dois anos.
     'That the Euro will be a reality in 1999, there **seems** to be no doubt. As for
     the fact of Portugal joining the single European currency within two
     years, that remains to be seen.'

(3) *À partida, o Boavista terá de inverter o resultado desfavorável (3-2) da*
     primeira mão. No entanto,
     a esperança   ***parece***   ***manter-se***   *viva no seio da equipa.*
     hope   seem.PRS.3SG   keep.INF-MM
     'o Boavista will have to turn around the unfavorable result (3)–(2) in the
     coming match [...]. In the meantime, hope **seems** to be kept alive in the
     heart of the team.'

In examples (2) and (3), inference is not a clear result of perception. This is ra-
ther based on the speaker's / writer's process of reflection because there is no
explicit external evidence to be doubtful about the Euro reality or the hope kept
in the team.

9.2.1.3 Reportive

(4) *Um outro assalto ocorreu na Praça dos Restauradores, onde um grupo de*
     12 jovens assaltou três transeuntes [...]. Na mesma noite, junto à Pontinha,
     *um outro grupo de jovens, **aparentemente** comandado por um que dá*
     pelo nome de Nélson, ou pela alcunha "O Corvo", assaltou e agrediu um
     transeunte.
     'Another assault happened at Praça dos Restauradores, where a group of
     young people attacked three passersby. At the same night, next to
     Pontinha, another group of youngsters, **apparently** led by someone
     called Nélson, or by the nickname "O Corvo", stole and attacked a
     passer-by.'

(5) *Em 1975, nas Caraíbas, o rei Juan Carlos lançou a ideia de uma nova e*
     *mais imponente exposição hispano-americana, ideia que, **ao que parece**,*
     esteve na base da Expoô92. Mais uma vez, como era inevitável, a cidade
     escolhida voltou a ser Sevilha.

'In 1975, in the Caribbean, King Juan Carlos launched the idea of a newer and more impressive Latin American exhibition, idea in which, **apparently**, was the base of the Expo 92. But once again, as expected, the place chosen again was Seville.'

(6) ***Ao que parece,*** *a importância dos rios Tuela e Rabaçal só passou a ser reconhecida depois que o Plano Hidrológico Espanhol começou a ser badalado. Todavia, na mesma região, há muitas ribeiras igualmente importantes, de cujos recursos não se fala* [...].
'**Apparently,** the importance of the rivers Tuela e Rabaçal only started to be segundo as after the Spanish Hydrological Plan started to be popular. Still nowadays, in the same region, there are many equally important riverbanks, whose resources are not talked about [...].'

(7) *A opção por um ou dois avançados não é igualmente clara, mas num ou noutro caso a opção sairá da dupla Liedson ou Silva (que alinharam juntos nos últimos dois encontros).*

Certo	***parece***	***ser***	***que***
true	seem.PRS.3SG	be.INF	COMP

Lourenço começará a partida no banco.
'The option between one or two forwards is not clear, but in either case the option would be to go for the couple Liedson or Silva (who aligned together in the last two matches). **It seems correct that** Lourenço will start the match at the bench.'

(8) *Um ano depois, nada se alterou. Excepto a degradação, que se vai acentuando. A recuperação ainda*

parece	***ser***	***possível***
seem.PRS.3SG	be.INF	possible

<u>*a julgar pelos depoimentos de alguns arquitectos*</u>, *ouvidos pelo JN.*
'A year later, nothing has changed; except for the degradation, which has even become greater. The recovery still **seems to be** possible, <u>judging by the claims of some architects</u>, listened to by JN.'

Instances of Willett's (1998: 96) third-hand reportives (see Section 9.3) prevail in our corpus. Nevertheless, it is also possible to find instances of evidence based on known sources. This is the case of example (8): *a julgar pelos depoimentos de alguns arquitectos* 'judging by the testimonies of some architects'.

The development of evidential markers through a process of conventionalization has been addressed by Gonçalves (2003, 2004), who follows Hopper and Traugott (1993) regarding the identification and description of different possible

constructions of Brazilian *parecer* 'seem'. Gonçalves (2003, 2004) points to a continuum that ranges from more grammatical constructions embedded in clauses to more independent and conventionalized units used by the speaker / writer to clearly show his / her attitude to the reported information. Examples below have been taken from our corpus to illustrate Gonçalves's continuum (2003: 197, 2004: 196–197):

Parecer 1 (as a verbal predicate)

(9) *Você* **parece** *um pouco aquela menina – como é?*
        seem.PRS.3SG

Gloria Pires'   [Gonçalves 2003: 197, 2004: 196]

'You   **look** a little **like** that girl – what's her name?...

Parecer 2 and 3 (as a predicate where the speaker is clearly signaling his/her attitude)

(10) *Hoje ninguém* **parece** **interessado** *em apoiar e aprender.*
                  seem.PRS.3SG interested.ADJ

'Today no one **seems** interested in supporting and learning.'

Parecer 4 (construction in a developed stage of conventionalization)

(11) *Mas este tipo de problemas já vem de longe e*
parece **que** *vai continuar.*
seem.PRS.3SG   COMP

'But this is a long-standing issue, and **(it) seems** it will continue.'

Parecer 5 (construction in the most developed stage)

(12) *Viu -o pela primeira vez e, ao que* **parece**
                                    seem.PRS.3SG

justificou a sua fama de bom cidadão.

'(He) saw him for the first time and, **(it) seems**, justified his reputation for being a good citizen.'

In this vein, Cornillie (2007) refers to different construction types for Spanish *parecer* 'seem' with nominal, adjectival and sentential complements. These constructions, the author explains (Cornillie 2007: 111), can be located on a conventionalization scale in which, from a diachronic perspective, *me parece que* '(it) seems to me that' and *parece que* '(it) seems that' would precede *parecer* + INF 'seem to'. Mario Squartini (2007: 5) explains that Cornillie's account of the Spanish constructions with the verb *parecer* 'seem' demonstrates that the infinitival construction *parece* + INF 'seem to' is restricted to one evidential mode of knowing (namely inference) as opposed to other syntactic structures (*parece* + complement clause, *parece* + datival expression of the concep-

tualizer, parenthetical uses), which cover a wider array of subjective (belief) and intersubjective (reportive) meanings. Squartini (2007: 1) explains that De Haan similarly compiles diachronic data from Germanic languages and reveals common features in the evolution of different SEEM-verbs (Engl. *seem*, Germ. *scheinen*, and Du. *schijnen*) as evidential markers. Both Cornillie and De Haan deal with Sp. *parecer*, its counterparts in Germanic languages, and the French pair *paraître/sembler*; these two verbs can be used with similar semantic values when they work as markers indicating a reported value (Dendale and Bogaert 2007: 76).

9.2.2 Markers derived from SEE-verbs

Perception verbs in Portuguese have been studied by Barros (1977), Carvalho (2004), and Rodrigues (2007), among others. However, not much has been written on the relation of these verbs with evidentiality. Yet we can say that these perception verbs take the form of *que* 'that' constructions to express a cognition-based inference with a +/− perceptual source (ex. 13, 14, 15):

(13) *Segundo dados fornecidos pela Santa Casa da Misericórdia de Lisboa (SCML), as receitas do ano passado não atingiram os dois milhões de contos. Os resultados totais de todos os jogos da SCML atingem os 136 milhões de contos. Por aquí* ***se*** ***vê*** ***que***
                                                MM   see.PRS.3SG COMP
o Totobola representa uma gota de água no oceano de dinheiro que anualmente invade a instituição.
'According to data provided by the Santa Casa da Misericórdia de Lisboa (SCML), last year's revenues did not reach two billion "contos". The total results of all SCML matches reached 136 billion "contos". Here **it can be seen that** the Totobola represents a drop in the ocean of money that annually invades institution that annually invades the institution.'

(14) *E não deixa de ser sintomático notar que a decadência e o apagamento lusitano no mundo se situam sempre na razão directa do desleixo ou do abandono a que votamos as coisas do mar. Tem estado a ser comemorado o centenário do lançamento entre nós dos estudos profundos de Oceanografia. E por essas celebrações*
se ***vê*** ***que***
MM   see.PRS.3SG   COMP

mais uma vez, foi um monarca a interessar-se pelo tema e até a coordenar os trabalhos.

'The peak of relations between Portugal and the liquid immensity that almost reached us in the 15th and 16th centuries. And it is still symptomatic to note that the decadence and the Lusitanian erasure in the world are always the direct reason for the neglect or abandonment to which we vote the things of the sea. The centenary of the launching among us of the deep Oceanography studies has been celebrated. <u>And by these celebrations</u> **it can be seen that**, once more, it was a monarch who showed interest in the topic and even coordinated the works.'

(15) *Foi o caso do Jornal da Manhã, do qual saíram, em 1888, para uma projectada nova folha – o Jornal de Notícias – os jornalistas e irmãos António e José Cruz, e os administrativos, também irmãos, Aníbal e Eduardo da Costa Morais. Comparando os dois jornais – Jornal da Manhã e Jornal de Notícias –, fácilmente* ***se*** **vê** **que**

     MM   see.PRS.3SG   COMP

eram da mesma familia.

'It was the case of Jornal da Manhã, from which, in 1888, the journalists and brothers António and José Cruz, and the administrative staff, also brothers, Aníbal and Eduardo da Costa Morais, left for a new newspaper – Jornal de Notícias. Comparing both newspapers – Jornal da Manhã e Jornal de Notícias –, it can be easily seen that they were from the same family.'

Cognition-based inferential meaning is also conveyed by the expression *pelo que se vê* 'by what can be seen' in (16):

(16) [...] ***pelo*** ***que*** ***se*** ***vê***
         by   what   MM   see.PRS.3SG
não sabem orientar a sua criatividade para fins mais úteis num país que apresenta os piores índices de literacia na Europa.
'[...], **by what can be seen**, (they) don't know how to guide their creativity for more useful means in a country that has the worst index of literacy in Europe.'

The expression *pelo que se vê* is also used in Portuguese to express evidence from report (17). This idea is further emphasized by adding *e ouve* 'and hear' (18) and *e pelo que se ouve* 'by what can be heard' (19):

(17) *E* ***pelo*** ***que*** ***se*** ***vê***
      and by   what   MM   see.PRS.3SG

na televisão algo que não é valorado pelo Conselho de Disciplina da FPF,
como resulta das explicações prestadas após a sanção [...].
'And by what is seen on television something that is not valued by the
Discipline Council of FPF, as a result of the explanations given after the
penalty [...].'

(18) *Tudo leva a crer,* **pelo   que   se   vê   e   ouve**
                          by   what MM see.PRS.3SG and   hear.PRS.3SG
     que o governo vai organizar o regresso das velhas senhoras: facilidade,
     distribuição e benesse.
     'Apparently, **by what is seen and heard**, that the government will or-
     ganize the return of the elderly ladies: ease, distribution and benefit.'

(19) **Pelo   que   se   vê   e   pelo   que   se   ouve**
     by   what MM see.PRS.3SG and by   what MM   hear.PRS.3SG
     entre nós, parece que continuamos a confiar tudo no Mercado Comum.
     '**By what is seen** and **by what is heard**, between us, it looks like we
     continue to trust everything in the Common Market.'

Nevertheless, evidence from report tends to take the form of a *que* 'that' con-
struction, as can be seen in examples (20) and (21):

(20) [...] *a Autónoma fez publicar esclarecimentos bem como a lista de*
     docentes (onde **se   vê   que**
                      MM   see.PRS.3SG COMP
     muitos dos professores são os mesmos das universidades públicas).
     '[...] the Autonomous had the clarifications published as well as the list of
     teachers (where **it can be seen that** many teachers are the same as in the
     public universities).'

(21) *Pelos dados biográficos agora divulgados, já* **se   vê   que**
                                                    MM   see.PRS.3SG COMP
     a leitura de A Festa de Ralph foi adiada para a viagem de regresso...
     'By the biographical data now published, it already **can be seen that** the
     reading of Ralph's was rescheduled for the return travel [...].'

9.2.3 Inferential *dever* 'must'

The closest form to the hyperlexeme MUST is the verbal expression *dever (de)*
'must'. The inference found in the examples retrieved from the corpus Evi-

dentialsPT is, indeed, mostly based on the speaker's/writer's personal assumptions. This is the case in examples (22) and (23):

(22) [...], *estou certo de que ela se* ***deve*** ***ter*** ***deixado***
                 must.PRS.3SG   have.INF   leave.PST.PTCP
      em bico os olhos dos representantes do clube chinés Quindao Yichung [...].
      '[...], I am certain that she **must have left** the representatives of the Chinese club Quindao Yichung astonished [...].'

(23) *A curiosa coincidência de os cinco accionistas da Robert Fearon serem britânicos*
      deve ***ter*** ***reforçado***
      must.PRS.3SG   have.INF   reinforce.PST.PTCP
      a convicção dos juízes do Tribunal de estarem a resolver uma questão explosiva.
      'The curious coincidence that the five shareholders from Robert Fearon are British **must have reinforced** the conviction of the judges of the Court to resolve an explosive question.'

Examples of perception-based inferential meaning are hardly found in the EvidentialsPT corpus, while cases of cognition-based inferential meaning show the highest frequency. This may be explained by the fact that the spoken subcorpus, where most instances of perception-based meaning are to be found, has not been included in our written corpus. Marginal instances of inference based on reportive evidence were also retrieved from the corpus. Curiously enough, explicit specification of the evidential justification of the proposition was only given in these cases:

(24) *De facto,* ***deve*** ***ser***
               must.PRS.3SG   be.INF
      dramático para um homem inteligente verificar que da sua obra as pessoas acabavam por registrar apenas aquilo que não quisera dizer [...].
      'In fact, **it must be** dramatic for an intelligent man to verify that from his work people would only register what he did not mean to say [...]'.

(25) *próprio amante de Diana já se tinha encarregado de dar a conhecer o real "affair" num livro que publicou e com o qual*
      deve ***ter*** ***amealhado***
      must.PRS.3SG   have.INF   accumulate.PST.PTCP
      uma boa quantidade de libras esterlinas.

‘Diana's lover already had taken charge of letting the real affair be known in a book he published and with which he **must have accumulated** a great quantity of sterling pounds.'

9.3 Reportive expressions

The closest forms to the crosslinguistic hyperlexeme SAY are the verbs *dizer* and *relatar* and *anunciar* and *confidenciar*. Evidential expressions deriving from these verbs include the verbal expressions *diz que* '(it) is said', *segundo relata*, *conforme relata*, *conforme anuncia*, *conforme confidencia* and *conforme diz* 'according to what is told, announced, confided, said'. Other expressions include the prepositional markers *segundo X* and *de acordo com X* 'according to', used to mark an overt and straightforward indication of the source of information, and the adverbial expressions *alegadamente* and *supostamente* 'allegedly'.

Willett (1988: 96) identifies three main types of reportive evidence: (i) second-hand evidence (reference to a direct witness of the described event); (ii) third-hand evidence (reference to people who were no direct witnesses of the described event); and (iii) folklore (fairy tales, mythology, oral literature, proverbs and sayings). The impersonal use of verbs of saying such as *diz que* (Pt.), *on dit que* (Fr.), *si dice che* (It.), *se dice que* (Sp.), where a matrix clause containing the verb of saying is followed by a complement clause, has become a widespread means of marking third-hand evidence in Romance languages (Cruschina and Remberger 2008). The conventionalization process undergone by these languages, although in varying degrees, has entailed the reanalysis of a bi-clausal construction (matrix clause + complementizer) as a single and grammatical unit "stripped of its lexical features" (Aikhenvald 2004: 272). Thus, a construction originally used for indirect speech has become an evidential marker.

Casseb-Galvão (2001) was the first to describe the conventionalization process followed by the expression *diz que* '(it) is said' in Brazilian Portuguese. According to the author, considering *diz que* '(it) is said' an evidential marker means an enrichment in the propositional paradigm of Brazilian Portuguese, which is still in development. Thus, the conventionalization process in this language is not as advanced as in other Romance languages. Precisely for that reason, Casseb-Galvão (2001: 207) explains that *diz que* '(it) is said' is a strong candidate to turn into a grammatical marker in Brazilian Portuguese if the conventionalization process continues. This tendency of discourse introducers to

conventionalization is also found in certain verbs indicative of speech acts (Aikhenvald 2004; Boye and Harder 2009).[1]

The verbal expression *diz que* '(it) is said' is used in European Portuguese to express reportive meaning without quoting the sources of information (ex. 26, 27) and literally quoting them (ex. 28, 29):

(26) [...] *por culpa de uma mentalidade que,* ***dizem***
                                    say.PRS.3PL
vozes de protesto, ainda guardam muitas das tradições da época da União Soviética e da tensão de Guerra Fria.
'[...] because of the fault of a mentality **that**, **as said** by protest voices, still keep many traditions from the time of the Soviet Union and the Cold War tension.'

(27) [...] *para os serviços de urgência, o hospital* ***diz*** ***que***
                                    the hospital   say.PRS.3SG COMP
tal serviço está garantido pelas empresas, e que até agora não houve qualquer problema.
'[...] for the emergency services, the hospital **says that** this service is guaranteed by the companies and that until now there has not been any problems.'

(28) *O comunicado* ***diz*** ***que***
the statement   say.PRS.3SG COMP
"o Governo exprime o desejo de que o Conselho da Frente de Salvação Nacional consiga, no mais curto espaço de tempo, fazer vigorar [...]*".*
'The announcement **says that** "the government expresses the wish that the National Salvation Council manages, in the shortest time possible, to make prevail [...]'.

(29) *Até porque,* ***diz***
                    say.PRS.3SG
"não quis ferir a susceptibilidade de ninguém".
'Even because, **it says**, "did not want to harm the proneness of anyone"'

The *segundo relata* expressions, usually taking parenthetical positions, seem to refer to information from newspapers. Since the source of information is as-

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1 Casseb-Galvão (2001: 173–176) illustrates the different uses of *diz que* with regard to the degree of conventionalization experienced: *citativo, intuitivo, reportativo de mito, assumido, inferencial, de boato,* and *especulativo*.

signed to the media, a higher or lower degree of authorial commitment will be conceded to the propositional content given according to the reputed prestige and notoriety of the media in question:

(30) ***Segundo   relata***
      according to   say.PRS.3SG
      o The Times, terá sido este o ambiente propício para uma proposta
      indecente: que o rapaz fugisse de casa dos pais e fosse viver com ela.
      '**According to** *The Times*, it was this the proper environment for na inde-
      cent proposal: that the man would run away from home and go to live
      with her.'

(31) *Assim, por exemplo,* ***segundo   relata***
                             according to   say.PRS.3SG
      o Diário de Notícias de 11 de Fevereiro, a cooperativa Dinensino,
      proprietária da Universidade Moderna, não paga ao Estado o IVA desde
      1996.
      'Then, for example, **according to** *Diário de Notícias* of 11th February, the
      cooperative Dinensino, owner of the Moderna University, does not pay to
      the State the VAT since 1996.'

(32) ***Segundo   relata***
      according to   say.PRS.3SG
      a BBC online, em certas zonas a ajuda – alimentos e medicamentos – está
      a ser lançada pelo ar porque diversas linhas de caminhos-de-ferro e
      estradas estão totalmente cobertas pela água.
      '**According to** the *BBC* online, in some areas the help – food and medi-
      cines – is to be thrown out because several lines of railways and roads
      are completely flooded.'

The expressions *conforme diz*, *conforme relata*, *conforme anuncia* and *conforme confidencia* 'as/according to what is said, told, announced, confided', in paren-thetical positions, seem to refer to the original speaker/writer who conveys the information in a literal (33) or non-literal formulation (ex. 34, 35, 36):

(33) ***Conforme   diz***
      according to say.PRS.3SG
      "são onze contra onze" e dentro das quatro linhas é que se verá quem sairá
      vencedor. Na sua óptica, aos portugueses outra coisa não restará senão
      "jogar à Porto".

'**As (he) says** "it is eleven against eleven" and inside the four lines is when the winner will be seen. In his view, there will be nothing left to the Portuguese but "play as Porto".'

(34)   [...] *uma intervenção do vereador Marinho Gomes, mas este,*
       conforme   nos   confidenciou
       according to us.DAT   confide.PST.3SG
       um comerciante, mostrou -se irredutível quanto ao assunto, [...]
       '[...] an intervention of the councilor Marinho Gomes, but he, **as we were confided** by a trader, has been found to be relentless about the matter [...].'

(35)   ***Conforme   relata***
       according to   report.PRS.3SG
       o engenheiro real, o italiano Alexandre Massai, que em 1597 dirigia as obras dos dois fortes e de um porto no Pessegueiro,
       '**As** the Royal engineer **reports**, the Italian Alexandre Massai, who in 1597 managed the works in two forts and a port in Pessegueiro,'

(36)   *será a vez de pôr então a tocar todos os grupos de música* [...]
       conforme   anunciou
       according to   announce.PTCP
       desde já, o presidente da Câmara, Mesquita Machado.
       '[...] it will be then the time to make all the rock music bands of the county, **as announced**, from now on, by the president of the chamber, Mesquita Machado.'

The prepositional expressions *segundo* 'according to' + Noun Phrase and *de acordo com* + Noun Phrase are used to mark an overt and straightforward indication of the source of information. This can encode an identification of the authorship of the quote or an indication of the source of hearsay.

Reportive expressions including literal quotations (ex. 37, 38, 39) and non-literal quotations taken from the sources of information (ex. 40, 41, 42) can be found in the following *segundo* + Noun Phrase examples retrieved from the corpus:

(37)   ***Segundo*** *Valente de Oliveira, "começamos agora a empreender juntos uma viagem no tempo, para descobrir como eram eles antes desse encontro".*
       '**According to** Valente de Oliveira, "we started now to undertake together a time travel, to discover how they were before this encounter"'.

(38)   [...] *afirmaram que começariam uma campanha contra a posição do Go-*
         verno com vista a discuti-lo. Esta posição, ***segundo*** *notícias, teria*
         "abalado" a primeira-ministra.
         '[...] asserted that (they) would start a campaign against the govern-
         ment's position with a view to discuss it. This position, **according to**
         news, would have "shaken" the prime minister.'

(39)   *No entanto,* ***segundo*** *aquela fonte, que pretendeu o anonimato, Noriega*
         "não tem lugar para onde ir", porque "ninguém o quer".
         'However, **according to** that source, that wished to remain anonymous,
         Noriega "does not have a place to go", because "nobody wants him".'

(40)   *As empresas suíças criaram em 1996 cerca de 300 mil postos de trabalho*
         no estrangeiro, ***segundo*** *um estudo realizado por uma instituição bancária*
         'The Swiss companies created in 1996 around 300 thousand workplaces
         abroad, **according to** a study made by a banking institution.'

(41)   ***Segundo*** *a bibliografia consultada para que a informação que chega ao*
         leitor seja a mais rigorosa possível, [...].
         '**According to** the bibliography reviewed in order to give to the reader
         the information as accurately as possible, [...].'

(42)   *Além disso,* ***segundo*** *fontes governamentais, há que demonstrar firmeza a*
         fim de se evitar que novas vagas de vietnamitas afluam, de igual modo, a
         Hong-Kong, [...].
         'In addition, **according to** governmental sources, firmness has to be
         shown in order to avoid that new Vietnamese places flow, as the same
         way, to Hong Kong [...].'

This is also the case in the *de acordo com* + Noun Phrase 'according' to + Noun
Phrase expressions preceding literal (ex. 43, 44) or non-literal (ex. 45, 46) quota-
tions:

(43)   *se já para aplicar os aumentos que,* ***de acordo com*** *feirantes contactados*
         pelo JN, "são elevados e insuportáveis".
         'if to apply the raises that, **according to** the fairground workers contact-
         ed by JN, "are increased and unbearable".'

(44)   ***De acordo com*** *o adido cultural português, "do ponto de vista dos*
         historiadores e investigadores japoneses, [...].
         '**According to** the Portuguese cultural attaché, "from the point of view of
         Japanese historians and investigators, [...].'

(45) ***De acordo com** a dirigente sindical Vera Carneiro, num total de 510 participantes, 327 votaram a favor, 165 contra e 17 abstiveram-se.*
'**According to** the union leader Vera Carneiro, in a total of 510 participants, 327 voted in favor, 165 against and 17 abstained.'

(46) *O escudo e a peseta, **de acordo com** as mesmas fontes, mantinham uma posição de estabilidade, valendo o marco 100, 43 escudos contra os 100, 41.*
'The Escudo and the Peseta, **according to** the same sources, kept a stable position, being worth 100, 43 Escudos against the 100, 41.'

The adverbial expressions *alegadamente* and *supostamente* 'allegedly' suggest reportive evidence while they are non-committal in terms of epistemic stance. They conform to what Celle (2009: 280) said about their closest English equivalents: "these adverbs signal the speaker's/writer's lack of commitment to what s/he is saying". This can be seen in the following examples:

(47) *Entretanto no terreno as obras, **alegadamente** de infra-estruturas do complexo turístico previsto para o lote situado em pleno Parque Natural de Sintra-Cascais (PNSC), continuam, apesar da [...].*
'However in the building site, **allegedly** from the infrastructures of the tourist complex provided for the lot situated in the middle of the National Park of Sintra-Cascais (PNSC), continue, despite the [...].'

(48) *[...] bem como cada um dos objectos valiosos, **alegadamente** desviados pelo trio -, foi -se abaixo das canetas quando João Peres, defensor dos arguidos, começou a confrontar [...].*
'[...] as well as each of the valuable objects, **allegedly** diverted by the trio -, was given up when João Peres, defendant of the accused, began to confront [...].'

(49) *[...] isto é, com o anúncio de medidas que **supostamente** pretendem ajudar as famílias endividadas a suportar o custo adicional do aumento, [...]*
'[...] that is, with the announcement of the measures that **allegedly** intend to help indebted families to bear with the added cost of the raise, [...].'

9.4 Indifferent indirect evidential markers

In the light of the models developed by Wiemer and Stathi (2010) and Marín-Arrese (2013), some of the evidential units analyzed in the preceding sections — *ao parecer*, *ao que parece* and *aparentemente* 'apparently' — may be positioned between the domains of reportive and inferential evidentials. Contextual sup-

port needs to be considered in order to disambiguate the specific meaning that the units in question take in these cases.

(50) *Completamente infeliz, o mesmo lai perdeu uma boa oportunidade pouco depois, **ao parecer** surpreendido por uma solicitação de tueba, acabando por perder o tempo de remate.*
'Completely miserable, the same lai [sic] lost a great opportunity soon after, **apparently** surprised by a request of tueba [sic], finally losing drible time.'

(51) ***Ao que parece**, tal estado de coisas é devido ao facto de a sua manutenção depender agora da secção de Conservação de Lamego,*
'**Apparently**, such state of affairs is the result that its maintenance depends now on the section of Conservation of Lamego.'

(52) *da filosofia grega, do diálogo platónico, criativo de novos nexos e entendimentos entre modos de ser e de ver, **aparentemente** inconciliáveis.*
'From Greek philosophy, from platonic dialogue, creative of new nexus and understandings between ways of life and view, **apparently** incompatible.'

9.5 Future and conditional tenses

In the case of European Portuguese, it is worth noting that future and conditional tenses can be analyzed as evidential markers with either inferential or reportive values both in simple and compound forms (Oliveira 2015).

Simple forms present the speaker's/writer's reasoning process as the source of information in cases of inference-based evidentiality. Their relation with epistemic modality can be seen in the fact that these forms can be replaced with modal periphrases. In the case of reportive values, the information given does not encode any uncertainty on the part of the speaker/writer, but it rather expresses "validated assertions, but by other sources of enunciation" (Oliveira 2015: 102). The following two examples, retrieved from the corpus, are inferential-based and demonstrate modal auxiliaries as part of complex predicates instead of simple forms of the verb.

(53) *Neste momento já* ***deve*** ***estar***
                            must.PRS.3SG be.INF
muito arrependido por ter dado o dito ao seu empenho na construção de uma comunidade lusófona, estando a aguardar a melhor oportunidade para abandonar a navegação.

'At the moment (he) **must be** regretting having put his effort in the Portuguese speaking community, waiting for the best opportunity to abandon the navigation.'

(54) *A Educação* ***devia***   ***ter***
                    must.COND.3SG   have.INF
      um fundo próprio, para minimizar as dificuldades que o Ministério
      enfrenta, principalmente no dominio da construção de mais escolas.
      'Education **should have** its own funds in order to minimize the difficulties that Ministry is facing, especially regarding the construction of new schools.'

Based on the information provided by the context, examples (53) and (54) take a reportive meaning; particularly example (53), which seems to be more openly indicating that the information is shared and known by the members of the community. In both cases (53 and 54), the complex modal predicate can be paraphrased using forms of either the future or the conditional. Thus, *deve estar* 'must be' may well be replaced by *estará* 'will be' in (53), while *devia ter* 'should have' can be substituted for by *teria* 'would have' without any substantial change in meaning in (54).

Regarding compound forms, there are also differences between the future and the conditional. According to Squartini (2004), the difference between the two forms, in inferential use, is related to the degree of commitment to the factuality of the conjectured situation (Squartini 2004: 81–82). Thus, in cases of inferential use, the future perfect suggests a higher degree of commitment to the information given than the conditional. As for the reportive use, the difference in degree of commitment does not apply because the information given is always second-hand (Oliveira 2015).

(55) *O individuo* ***terá***   ***fugido***
                     must.FUT.3SG   run_away.PST.PTCP
      após este segundo tiro, sendo perseguido pelo militar que não o conseguiu
      alcançar.
      'The individual **must have run away** after the second shot, being chased by the military, who couldn't reach him.'

(56) *Monsaraz, ou Monte Sarraz, seria o lugar onde* [...]
      teria   ***sido***   ***sepultado***
      have.COND.3SG   been.PTCP   bury.PST.PTCP
      'Monsaraz, or Mount Sarraz, would be the place where the Knight Galaz **would have been buried**.'

In these examples of inference-based evidentiality (ex. 55, 56), there is a higher degree of commitment to the information presented in the case of the future perfect than in the conditional perfect, where reasoning is mostly presented as a conjecture.

9.6 Diachronic approach to evidentiality in Portuguese

Galician-Portuguese varieties were the native language of Galicia and Portugal until 1350. In the 14th century, with the independence of Portugal after the Aljubarrota Battle in 1385, which marked the beginning of the decline of the Galician language until the 19th century, Portuguese experienced a literary and intellectual flowering and became the language of important poets in the Iberian Peninsula.

Nevertheless, the diachronic evolution of the Portuguese evidential markers has not been fully addressed in the literature to date, with a few exceptions. For example, Gonçalves (2003, 2004), whose findings were reported in Section 9.2.1, discusses the conventionalization process followed by the unit *parecer* 'seem' as pointing to a move from a more basic perceptual to a more pragmatically-motivated use, with the verb functioning as an independent marker in the final evolution stage. On the other hand, Cruschina and Remberger (2008) address the conventionalization process followed by the common expression *diz que* '(it) is said that' in Brazilian Portuguese, where the original bi-clausal construction has become a fixed single unit to mark third-hand evidence. This was reported in Section 9.3. Yet, further research would be necessary to trace this evolution in order to examine the semantic values of the evidential markers under analysis.

Quite unfortunately, only a few aspects regarding the etymological evolution from Latin into Portuguese can be mentioned for the evidential units under analysis in this chapter: *parecer* 'seem', *dizer* 'say', *ver* 'see', *saber* 'know' and *dever* 'must'.[2] No reference to evidential semantic values can be made at this stage:

– The irregular verb *parecer* 'seem' comes from vulgar Lat. **parescĕre*, derived from *parēre*, meaning 'appear', and the suffix *-esc*.
– *Diz que* contains the irregular verb *dizer* 'say', from Lat. *Dicĕre*, which in turn comes from the Indo-European root **deik*, meaning 'point at' or 'indicate'. The conjunction *que* derives from Lat. *Quem*.

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2 Online dictionaries *Infopèdia. Diccionàrios Porto Editora* and **Michaelis Moderno Dicionário da Língua Portuguesa** (https://www.infopedia.pt/ and http://michaelis.uol.com.br/moderno-portugues/), respectively, have served to this end.

- The irregular verb *ver* 'see' comes from Lat. *vidēre*, derived from the Indo-European root **weid-* with the same meaning.
- The irregular *saber* 'know' comes from Lat. *sapēre*, connected to the Indo-European root **sap-*, meaning 'taste' or 'perceive'.
- Irregular *dever* 'must' descends from Lat. *debēre*, which, in turn, comes from the verb *dehibere*. The latter is the verb *habere* 'have' with the prefix *de-* meaning obligation 'must'.

9.7 Conclusions

This study has aimed at analyzing the system of evidential expressions in Portuguese with a focus on the differences in the use of each unit. More specifically, the study has consisted of a corpus-based analysis that describes the expression of evidentiality in Portuguese in the context of real language use. This has corroborated claims made by scholars such as Dendale and Tasmowski (2001) and Aikhenvald (2004) when they state that Portuguese clearly relies on lexical means to code evidentiality.

As has been observed throughout the paper, the inferential units related to SEEM are recurrent in our corpus. This is hardly surprising taking into account the high number of expressions related to evidential SEEM-constructions in Portuguese, all of which are amply attested in our corpus. Results have shown that an inferential value in Portuguese is univocally expressed by *parece* '(it) seems', *parece que* '(it) seems that', *parece ser que* '(it) seems to be that', *certo parece ser que* '(it) seems to be true that', *ao que parece* '(it) seems', *ao parecer* '(it) seems', *aparentemente* 'apparently', *pelo que parece* 'for what (it) seems', and *segundo as aparências* 'for what (it) seems'.

The high number of SEEM-constructions is followed by a number of SEE-constructions in Portuguese, which are also quite frequent in our corpus. In constructions with verbs of perception, there seems to be a relationship between the conventionalization of those constructions and the indirectness of their evidential meanings. This is in line with previous studies which have pointed out that the conventionalization of certain patterns has contributed to their value as indirect evidentials (Wiemer 2010; Van Bogaert and Colleman 2013). In the case of SEE-forms, conceptual inferential meaning is expressed by *se vê que* '(it) can be seen that' and *pelo que se vê* 'for what can be seen', which are also used to express evidence from reports. SEE-constructions with *que* are also common to express evidence from reports.

Reportive uses, which result from expressions grouped under the crosslinguistic units SEE and SEEM, are equally widespread in our corpus whereas

diz que '(it) is said', *segundo relata*, *conforme relata*, *conforme anuncia*, *conforme confidencia* and *conforme diz* 'according to what is told, announced, confided and said' convey reportive evidential meaning. This is also the case with prepositional and adverbial expressions which include the prepositional markers *segundo X* and *de acordo com X* 'according to X'— used to mark an overt and straightforward indication of the source of information — and the adverbs *alegadamente* and *supostamente* 'allegedly'. Some uses of the evidential units *ao parecer* '(it) seems', *ao que parece* 'for what (it) seems' and *aparentemente* 'apparently' present cases of ambiguity between reportive and inferential evidentials.

The cross-linguistic unit MUST is equally worth mentioning as a marker that, at least in our corpus, points out to cognitive inferences. The same can be said, although to a lesser degree due to the few examples retrieved from the corpus, about the use of the future and the conditional.

The presence of the abovementioned units clearly indicates that the type of evidentiality most frequently found in Portuguese, as reflected in our corpus, is the indirect type (inferential and reportive). On the other hand, marking of direct evidentiality, which originates in the experience of the speaker, seems to be non-existent in our corpus. This finding is consistent with studies that claim that Portuguese, unlike languages with grammatical evidentiality marking, does not rely on any type of marking for direct evidentiality (Dall'Aglio-Hattnher 2001: 33).

Abbreviations in glosses (not included in LGR)

COM	comparison marker
CONJ	conjunction
MM	middle marker, impersonal middle marker, passive middle marker
PRN	pronoun

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Part IV: **Language Profiles – Slavic**

Björn Wiemer and Alexander Letuchiy

10   Evidential marking in Russian

10.1 Introduction

Russian does not have any morphological evidential markers. There are only three enclitics which come close to evidential functions, namely the quotative ("mimetic") *-de* and *mol* (see Section 10.6.2) and the colloquial *gyt* (< *govorit* 'says'; see Section 10.6.4.).[1] However, these are rather marginal and occur in very different text types. There is only one modal auxiliary, *dolžen* 'must', and its usage arguably encroaches into inferential evidentiality (see Section 10.2.1). The bulk of units with a truly evidential meaning are to be considered sentence adverbs or particles, many of which can be used as parentheticals. Some of these units have lexicalized from finite verb forms. Only few of them show heterosemy, insofar as it is or (until recently) it was possible to use them as complementizers.

A few remarks on predicatives are in order. These are defined as units that do not inflect for tense and person-number (otherwise common verbal categories of Russian), or inflect only "analytically". Instead, they form predicates without nominative subjects, with objects either in oblique cases (e.g., *Slyšno strel'bu*.ACC 'One can hear gunfire') or as finite clauses (e.g., *Vidno, čto ty obradovalsja* 'One can see that you are excited'). That is, predicatives have their own argument structure. In our text, they are considered at various places, whenever appropriate (see especially Section 10.2.9), despite the fact that they violate the second of Anderson's (1986) principles, which we have otherwise pursued in this volume. Namely, predicatives themselves (even by definition) function as the main predicate of its clause. We relinquish this principle ('Evidentials are not themselves the main predication of the clause…') for predicatives, for two reasons. First, predicatives are a salient word class in many Slavic languages and some of its representatives have functions associated with evidentiality. Second, all Russian "evidential" predicatives, except *slyšno* '(one can) hear', are heterosemic, i.e. they have cognates with different syntactic behavior (see Section 10.2.9). In both respects, it is fruitful to compare Russian and Polish (Wiemer and Socka, this volume), where this word class

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1 The lack of morphological(ized) indicators of evidential functions appears to be a diachronically persistent feature of Russian (East Slavic). Perelmutter (2009: 114f.) claims that early East Slavic (often called 'Old Russian') did not feature any morphological means either.

seems to be even more prominent (at least in meanings relevant for evidentiality).

If not indicated otherwise, examples are taken from the Russian National Corpus (RNC; see references); occasionally, with due care, we also use data from Google. We refrain from any more accurate quantitative figures, since our survey is not based on a full-fledged corpus analysis nor on any sort of experiment with native speakers. We are aware that we are often dealing with very subtle differences in meaning for which no annotations exist. In addition, judgments even of well-informed native speakers are prone to variation (for some markers even quite dramatically so). Therefore, in many cases, we will restrict ourselves to indicating tendencies. These are based on native speaker judgments of one of the authors, they are backed by random sampling of the RNC and they are relying on cross-checked judgments of other native speakers. Any systematic corpus-study allowing for reliable quantification, as well as a survey with informants would amount to a separate research project.

Those examples that do not involve any indication of source are constructed. Glosses are used only if a more precise understanding of the morpho-syntactic structure is an issue and would otherwise not be obvious.

10.2 Inferential units

In a sense, the inferential zone is the richest evidential subdomain in Russian. There are a certain number of epistemic sentence adverbs, or particles, which bear the potential of narrowing down the domain of information source. However, for most of them, more specific inferential functions are difficult to predict pragmatically, as they are highly context-dependent; only few units can be ascribed a sufficiently conventionalized inferential function. Even with these units, epistemic values are barely ever absent, that is, we always have to reckon with syncretisms of inferential-epistemic meanings. Therefore, the main task is to establish which markers can foreground an inferential component of their meaning potential (while backgrounding the epistemic one), and which parameters are capable of classifying these markers in accordance with more specific bases of judgment.

We are thus led to a division of units that are (i) almost exclusively used evidentially (with inferential components foregrounded) or (ii) almost exclusively used non-evidentially (with inferential components in the background and foregrounded epistemic judgment). The former class includes units like *javno* 'obviously', *sudja po vsemu* 'by all accounts', *vidno* 'evidently', *poxože* 'appar-

ently', the latter class includes *navernjaka* 'certainly', *navernoe* 'probably' and, perhaps, *verojatno* 'likely' (see below).

We need to look for conclusive diagnostic contexts that bring to light such parameters. Moreover, we have to remember that, by talking about bases of judgment, it is never the inferences themselves which represent evidential values, but the knowledge background or experiential base that can serve as triggers for inferences (cf. Speas 2018: 295–299; Wiemer 2018b: 93–99, also for further references). Thus, speaking about inferential values (or meanings) is a shortcut.

Subsequently, we introduce and illustrate parameters that proved useful for a subclassification of inferential meanings. Among those which are familiar from the extant literature, and which have been applied for other language profiles in this volume (Section 10.2.1), we also briefly consider additional features (Section 10.2.2). Hopefully, these distinctions will contribute to a more fine-grained grid of criteria for further empirical investigations.

10.2.1 ± perceptual basis of inference and circumstantial facts

The basic distinction between inferential markers arises from the criterion whether the inference is triggered by perceivable pieces of immediate, and thus circumstantial, experience or whether it relies on a more stable knowledge background. The latter can be entrenched either by socio-cultural knowledge or by individual knowledge about regularities (habits etc.). This opposition has been given different names; it corresponds to 'inferred' vs 'assumed' in Aikhenvald (2004). The distinction can be more fine-grained. In turn, circumstantial evidence can be of different kinds; either it is based simply on immediate perception, or it refers to other particular pieces of evidence that allow for making a specific conclusion (e.g., propositions from speech acts; see below). We assume that Russian data allow for the following subbranching of circumstantial knowledge backgrounds:
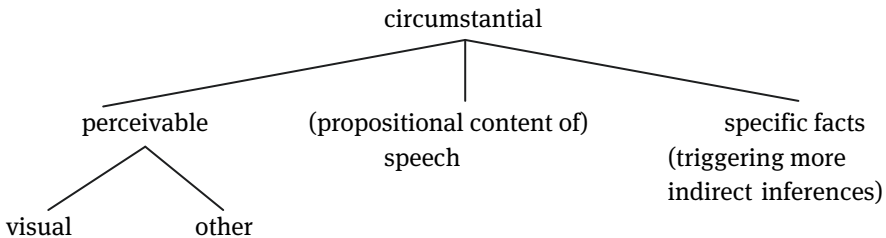
Figure 1: Circumstantial knowledge backgrounds.

We will illustrate these distinctions below.

The [+/− perception-based] parameter explains why some Russian sentence adverbs, if substituted for each other, carry different implications as for the knowledge background. Let us consider a kind of minimal pair:

(1)   *[Anton] došel do (...) balkona i povernul nazad. Pri ėtom on čto-to murlykal.*
'Anton reached the balcony and turned back. At the same time he was mumbling something.'

    a.   ***Kažetsja,***   *marš*   *iz*   *Aid-y.*
        seemingly   march-(SG.NOM) from   Aida-GEN.SG
        'It **seems**, a march from Aida.' (Ju. Trifonov)

    b.   ***Navernoe,***   *marš*   *iz*   *Aid-y.*
        presumably   march-(SG.NOM) from   Aida-GEN.SG
        'It **must** have been a march from Aida.'

Either sentence (1a or 1b) can be a reasonable continuation of (1), but they imply different bases of judgment: *kažetsja* implies that the speaker heard a melody which reminded them of a piece of music from Verdi's opera. *Navernoe* blocks this implicature, it would be appropriate if the speaker was not able to discern the melody, but knew that Anton had the habit of whistling this piece of music when walking through the living room. On this basis, the speaker felt justified to infer that Anton did so this time, too. *Navernoe* and *kažetsja* cannot be exchanged for each other, because they differ in the way they narrow down the characteristics of the background knowledge that may supply justification for inference. From the point of view of the inferential base, they are complementary, irrespectively of possibly different degrees of epistemic support (weak for *kažetsja*, stronger for *navernoe*).

We will not consider all relevant markers here (see Table 1 for a synopsis of the relevant features), but *poxože* appears to be closest to the properties of *kažetsja*. It might be used instead of the latter in contexts like (1a); it is however less biased to visual perception (on which see Section 10.2.3).

A comparable complementary distribution can be observed among some sentence adverbs which are similar in terms of epistemic support. For instance, *javno* implies a high degree of epistemic support, but it can be used only if the inference is based on some circumstantial evidence. This is quite to the contrary of *navernoe*, which excludes circumstantial evidence, while, like *javno*, it implies a high degree of certainty. In turn, *javno* cannot be used if the trigger for the inference is knowledge about habits or other knowledge that is not bound to singular events or other circumstantial facts (Jakovleva 1994: 219–232; see also

below). The next example illustrates that *javno* is appropriate if the inference is
based on directly perceivable behavior:

(2)   [But then" I noticed the lama, and I did not want to go further anymore.]
        *Izumitel'n-oj   krasot-y   životno-e   **javno***
        surprising-GEN.SG.F   beauty[F]-GEN.SG animal[N]-NOM.SG   apparently
        o   svo-ej   krasot-e   zna-l-o   i
        about own-LOC.SG.F beauty[F]-LOC.SG know[IPFV]-PST-SG.N and
        vsjačeski   nam   pozirova-l-o.
        in.all.ways   we.DAT   pose[IPFV]-PST-SG.N
        'This animal of amazing beauty **apparently** knew about its beauty and
        posed for us in every possible way.'   [*Pervoe sentjabrja*, 2003]

Replacing *javno* by *navernoe* or *navernjaka* in (2) would bear the implication
that the speaker had no chance to infer about the lama's "state of mind" from its
observable behavior. This would be quite nonsensical because the speaker did
have opportunity for this (as expressed by *vsjačeski nam pozirovalo* 'posed for
us in every possible way'). The case in (3) is slightly different:

(3)   *Oni   naš-l-i   rabot-u   oxrannik-ami v častn-yx*
        they.NOM   find[PFV]-PST-PL job-ACC.SG   guard-INS.PL in private-LOC.PL
        *kompanij-ax,   no   zarplat-a   ix   **javno***   *ne*
        company-LOC.PL   but   salary[F]-NOM.SG they.ACC   apparently NEG
        ustraiva-l-a.
        suit[IPFV]-PST-SG.F
        'They found a job as guards in private companies, but their salary
        apparently did not suit them.' [*Ežednevnye novosti* (Vladivostok), 2003]

Here, *navernoe* could be used instead of *javno*, but the sense would change:
with *javno*, it is clear that the speaker has already observed some kind of behav-
ior. This behavior is treated as a symptom for the mood of those they speak
about ('the wages are insufficient'). By contrast, although *navernoe* could mean
that the speaker infers something from the behavior of the subjects, it could
equally indicate that the speaker has not observed anything (nor spoken to the
guardians). The speaker might just induce from knowledge about the kind of
work and the amount of the wages and, in addition, from knowledge about
what is an adequate relation between the kind of work and the payment, that
the people spoken about must be unsatisfied.

A perceptual basis of judgment is close to judgments based on speech acts
(or, more precisely, on the propositional content of speech acts). Thus, *javno* is

appropriate if the speaker makes an inference based on an interlocutor's utterance, as in the following example:

(4) a. *U* *vas* ***javno*** *iskaženn-ye* *predstavlenij-a*
         at   2PL.GEN apparently distorted-NOM.PL view-NOM.PL
         o *Rossi-i.*
         about   Russia-LOC
         'Your idea of Russia is **apparently** distorted.'
                [Forum: "Byli vy v strane prepodavaemogo jazyka?", 2008–2011]

The speaker might have said (4a) as a reply to an assertion made by the addressee, something like 'In Russia, bears can often be met in the streets'. Having heard this, the speaker in (4a) concludes that the interlocutor has a wrong notion of Russia.

The same context does not allow for the use of *navernjaka*, a cognate of *navernoe*, that expresses an even stronger degree of certainty. Example (4b) would be a very strange reaction to someone else's utterance, e.g. 'In Russia, everyone drinks vodka':

(4) b. *U* *vas* ***navernjaka*** *iskaženn-ye* *predstavlenij-a*
         at 2PL.GEN surely distorted-NOM.PL view-NOM.PL
         o *Rossi-i.*
         about   Russia-LOC.SG
         'Your idea of Russia is **obviously** distorted'

Such an utterance with *navernjaka*, however, would be appropriate if the inference is made from general knowledge. For instance, the addressee has just said that they had never been to Russia, and that what they know is based on reading some classical literature. The speaker in (4b) has not perceived any specific wrong claim that points to a distorted notion of Russia, however, the speaker knows that usually people cannot get a precise idea abouth something just by reading books. Hence, the speaker thinks that this also applies to this interlocutor.

At this point, an additional comment on *kažetsja* is in order. This particle-like unit represents the paradigmatically isolated 3SG.PRS.IND-form of the verb *kazat'sja* 'seem'. As we saw in (1a), if used inferentially, it is associated to some circumstantial evidence. Note, however, that the verb *kazat'sja* itself is not restricted to perceptive contexts. In fact, it does not have any salient evidential function. It just denotes that the speaker thinks that the situation is taking (or took) place, but is not sure about it. In the following example, the speaker's opinion is not based on perceptive evidence; in fact, it does not matter on what this opinion is based:

(5) *Mne*   **kaž-et-sja,**   *čto* *prjam-oe*   *sledovani-e*
     1SG.DAT seem[IPFV]-PRS.3SG-RM COMP direct-NOM.SG.N following[N]-SG.NOM
     mod-e   *ėt-o*   *durn-oj*   *vkus.*
     fashion-DAT.SG DEM-NOM.SG.N   bad-NOM.SG.M   taste[M]-(NOM.SG)
     'It **seems** to me that following a fashion directly is tasteless.'

                                                    [*Domovoj*, 2002]

In sum, *javno* differs from *navernoe* and *navernjaka* along very similar evidential parameters as does particle-like *kažetsja*, but it also differs from *kažetsja* in terms of epistemic support.[2]

   Let us now deal with a more indirect type of circumstantial information: the inference is not based on perceivable evidence proper, but the speaker has knowledge of some specific facts which – on the basis of some more general knowledge background about cause-effect relations – allow for a conclusion. Consider the following example:

(6) [At the end of the second century AD the bearers of the Pševorskaja culture in the Vistula area broadly settled in the northern peripheral regions of the middle Danube.]
     Zdes' *skladyva-et-sja*   *prešovsk-aja kul'tur-a,*
     here   emerge[IPFV]-PRS.3SG-RM   (Prešov culture)-NOM.SG.F
     javno   *otpočkova-vš-aja-sja*   *ot*   *pševorsk-oj.*
     apparently spin.off[PFV]-PPA-NOM.SG.F-RM   from   Pševorsk-GEN.SG.F
     'Here, the Prešov culture emerges, which **apparently** span off from the Pševorsk culture.'

               [V.V. Sedov: "Ėtnogenez rannix slavjan". *Vestnik RAN*, 2003]

In this example, the author, an archaeologist, has some specific knowledge which leads him to conclude that some culture underwent a shift. In addition, however, *javno* indicates that the conclusion was drawn from knowledge about some specific facts (not spelt out here), such as, e.g., pieces of clay or weapons from excavations which show a different style than the Pševorskaja culture. If *navernoe* were used, the implication that there were specific facts triggering the archeologist's inference would be absent; instead the speaker would just formulate a hypothesis for which the knowledge basis is unknown, it would only be clear that circumstantial evidence is excluded.

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2 The possibility of cross-classifying knowledge-related (i.e. propositional) markers by combining strength of epistemic support with information source (though in entirely different terminology) was elaborated by Jakovleva in her doctoral thesis from the 1980s. This classification and its motivation were presented as a book chapter in Jakovleva (1994: 196–251).

In fact, we may say that the perception-based indication of the basis of judgment is only a special case of the more general circumstantial case illustrated in (6). A great number of the examples found in the RNC appear to belong to the circumstantial type, while unambiguous reference to perceptual information is much harder to find.

To complete the picture, note that several inferential markers which imply strong epistemic support can be divided along the [± perception-based] distinction: *javno* 'obviously' and *opredelenno* 'certainly' imply a perceptual basis of inference (Ioanesjan 1993: 94), while *bezuslovno* and *bessporno* 'undoubtedly' exclude it, and *nesomnenno* can behave either way. For an illustration see the following examples (cited from Jakovleva 1994: 238, 240):

perception-based

(7) Context: [*Ja spešil orešnikom, kogda različil pozadi približajuščiesja šagi. Ogljanulsja – nikogo.*]

Prislušiva-l-sja –   *menja*   **opredelenno/ ?nesomnenno**
listen[IPFV]-PST-(SG.M)-RM 1SG.ACC definitely   undoubtedly
/*bessporno   *kto-to*   *dogonja-l.*
indisputably   somebody.NOM   catch_up[IPFV]-PST-(SG.M)
'[I was rushing through a hazel wood when behind me I discerned steps approaching me. I looked around – nobody was there.] I started listening attentively – **definitely/?undoubtedly/*indisputably**, somebody was catching up with me.'   [V. Bogomolov]

not perception-based

(8) *Ivan*   **nesomnenno/ *opredelenno** *dobra-l-sja*   *do*
Ivan(NOM.SG) indisputably/ definitely   reach[PFV]-PST-(SG.M)-RM to
mest-a ,   *ved' proš-l-o*   *bol'še*   *čas-a.*
place-GEN.SG PTC   pass-PST-SG.N   more   hour-GEN.SG
'Ivan **indisputably/*definitely** reached the place, as more than an hour has passed.'

In turn, the complex unit *dolžno byt'* is used with a rather unspecific range of knowledge bases; it can be encountered with perceptual (9) or encyclopaedic (10) background:

(9) *Smotr-i,*   *kak-ie*   *tuč-i –*
look[IPFV]-IMP.SG   which-NOM.PL   cloud-NOM.PL
dolžn-o   **by-t',**   *dožd'*   *sobira-et-sja.*
must-SG.N   be-INF   rain-(NOM.SG)   collect[IPFV]-PRS.3SG-RM
'Look, what clouds – it's **certainly** going to rain.'

(10)   *Deržavin na svoem veku šest' čelovek povesil,*
         Čexov,   **dolžn-o   by-t'**,   *neskol'k-ix*   *vyleči-l.*
         PN-(SG.NOM)   must-SG.N   be-INF   some-ACC.PL   cure[PFV]-PST-(SG.M)
         'In his life time Deržavin hang six people. Chekhov **probably/assumed-ly** cured some people.'   [*Zvezda*, 2002]

Dolžno byt' 'should be, must be' *is a* fixed expression composed of the neuter form of the MUST-auxiliary *dolžen*, itself of adjectival origin (see Section 10.7), and the infinitive of 'be'. It has lexicalized as an adverb which tends to be used parenthetically. *Dolžen*, in turn, is a multifunctional unit[3] used as a modal auxiliary employed for circumstantial, deontic and epistemic necessity (Hansen 2001: 184f.). Just like epistemic MUST, it readily acquires an inferential reading; thus consider (11):

(11)   *Vam 30 let,*
         Vy   *ešče*   **dolžn-y**   *pomni-t'*   *kolxoz-y.*
         2PL(HON).NOM   even   must-PL   remember[IPFV]-INF   kolkhoz-ACC.PL
         'You are 30, you **should** still remember kolkhozes.'

                                                          [*Argumenty i fakty*, 2003]

Vidno, *vidimo*, *po-vidimomu* 'obviously' and *skoree vsego* 'most likely' express a lower degree of epistemic support than *opredelenno* 'definitely' and *javno* 'clearly'. At the same time, the distinction of [± perception-based] units can be observed in this group. *Skoree vsego* and, perhaps, *vidimo* are possible and natural in contexts like (11), when no perceptual base is available: the judgment is only based on common sense ('A person who is 30 and lived in the time of kolkhozes should remember them'). A change to *po-vidimomu* would yield an acceptable utterance as well, but, again, it would sound more natural if the inference was not based on common sense, but on perceptually accessible data (for instance, if the interlocutor said something about kolxozes). Finally, for *vidno* (just as *sudja po vsemu* 'by all accounts') this bias toward some perceptual basis, e.g., somebody's words or actions, appears to be even stronger.

10.2.2 Perception-based inferences and direct perception

Markers which belong into the perception-based group can further be subclassified distinguishing those that can be used with direct evidence (like

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3 Etymologically, this is an adjective and still inflected for gender and number (*dolžen* is the masculine singular form).

kažetsja) and those that cannot (like *vidimo* and *očevidno*); see the following examples:[4]

(12) a. ***Kažetsja**, ja   očen' izmeni-l-sja.*
          seemingly 1SG.NOM very   change[PFV]-PST-(SG.M)-RM
          Osunu-l-sja   i   posede-l.
          become.thin[PFV]-PST-(SG.M)-RM and   become.grey[PFV]-PST-(SG.M)
          '**It seems**, I have changed a lot. I have become peaky and my hair has grown grey.'
      b. ***Vidimo**, ja   očen' izmeni-l-sja.*
          obviously I.NOM very   change[PFV]-PST-(SG.M)-RM
          (Vse smotrjat na menja s ispugannym vzgljadom.)
          '**Obviously**, I have changed a lot. (Everybody looks at me with scared eyes.)'

Let us assume that these sentences are uttered after the speaker has recovered from a long illness. Utterance (12a) is appropriate if the speaker is looking into a mirror and can thus infer a judgment based on their own appearance, although they might not quite trust their own eyes. Utterance (12b) would only be adequate if the speaker comes to a conclusion relating to their own appearance or state not by looking into the mirrow, but by looking at other people's reactions to their own appearance.

One may object that the use of markers like *kažetsja* in (12a) cannot really be considered to be evidential. The marking of direct evidence is optional as well, and (12a) does not imply any inference at all.[5] However, its usage in perception-based contexts allowing for a direct evidence reading often (not always) goes hand in hand in the functional range of an evidentialtiy marker. In contrast, inferential markers that are excluded in perception-based contexts never occur in contexts of direct evidence. This indicates that those contexts with direct evidence and those allowing for perception-based inferences are much closer to each other than those where the context is deprived of a perceptual basis. It is a different issue whether, arguably, the behavior of some marker, e.g. *poxože*, is intermediate in the sense that it tends to be used in contexts with indirect evidence (as in 12b), although, in principle it can be used in contexts containing direct evidence (as in 12a). These subtle distinctions on the cline reaching from direct to indirect evidence can only be clarified by in-depth usage-based investigations.

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4 These and similar examples were analyzed in Ioanesjan (1993) and Bulygina and Šmelev (1997: 303). The latter authors discussed these parameters as a critical continuation of the [+/− perceived] distinction introduced in Jakovleva's doctoral thesis (see fn. 2).

5 Usage of perception-based inferentials in such contexts yields mirative effects.

10.2.3 ± visual perception

Not all inferential markers that imply a perceptual basis are equally appropriate if this basis is a visual one. Typically, on this ground the group of perception-based markers with a medium degree of epistemic support can be further distinguished. Thus, for instance, *kažetsja* 'seemingly' shows a preference for visual inference, while *poxože* 'similarly' is possible both in this context and with non-visual inference (see above). Other markers of medium degree of epistemic support are *sudja po vsemu* 'by all accounts', *dolžno byt'* 'should be', *vidno* and *vidimo* 'obviously'. All of them are acceptable both in visual and the non-visual contexts. Furthermore, *vidimo* is compatible with inference based on visual stimuli, while *vidno*, *dolžno byt'* and *sudja po vsemu* are primarily used in non-visual contexts, but also some deductive basis. Compare:

(13) ***Kažetsja / poxože /?vidno,*** on obide-l-sja.
Seemingly / similarly / obviously he.NOM offend[PFV]-PST-(SG.M)-RM
Razvernu-l-sja i uše-l.
turn.around[PFV]-PST-(SG.M)-RM and go.out[PFV]-PST-(SG.M)
'**It seems** (that) he was offended. He turned around and left.'
[G. Ščerbakova: "Kak nakrylos' odno akmė". 2001]

In this context, *sudja po vsemu* requires some comment. This complex unit contains the component *sudja po* which is often used to mark inferential evidentiality. The complement slot of the preposition *po* is occupied by an NP marking the source of inference, e.g. *sudja po ego povedeniju* 'as can be judged from his behavior'. In this sense, *sudja po + X* is a transparent construction. At the same time, *sudja po vsemu* can be treated as a separate expression. The semantic of this word combination is not fully compositional: the complement *vs-emu* 'everything-DAT' does not mean that something is inferred from a whole list of things and situations observed; *sudja po vsemu* can be used (and is used very often) when the inference is made from one particular observation. In this respect, *sudja po vsemu* is analogous to other inferential expressions, such as *poxože* and *kažetsja*. This is why we included it in our list of evidential expressions and why we separated it from the whole pattern with combinations of the type *sudja po + X*.

In turn, when visual evidence is lacking, *poxože* cannot be replaced by *kažetsja*:

(14) *No kinoproizvoditelj-am* ***poxože*/?*kažetsja*** *ne nužn-y*
but cinema.producer-DAT.PL similarly/seemingly NEG necessary-PL

nov-ye stukač-i.
(new informer)-NOM.PL
'But cinema producers do not **seem** to need new snitches.'

Imagine the following situation: the cinema producers usually manage to distinguish a legal production from an illegal one. The author says that they do not need new snitches to do it – they do it themselves or they have 'old' informers who worked for them before. The situation that serves as a basis of inference cannot be observed directly – no visual evidence is available, the speaker only observes a general tendency that no new snitches appear. This is why only *poxože*, but not *kažetsja* is acceptable here.

Of course, some markers that are incompatible, or almost incompatible, with perception-based inference, such as *navernjaka*, are incompatible with the visual type of inference.

Conversely, units like *kažetsja* are highly compatible with inferences triggered by visual perception. Typically, it is possible for them to occur in other perceptual contexts, for instance, when the perceptual basis is auditory or olfactory (Weiss 2010: 207f.); see (15). In turn, example (16) shows *poxože* in a context in which the inference is based on auditory evidence:

(15) *Čto-to   dym-om   paxn-et.*
      something-NOM   smoke-INS.SG   smell[IPFV]-PRS.3SG
      ***Kažetsja**,   čto-to   gor-it.*
      seemingly   something-NOM   burn[IPFV]-PRS.3SG
      '**It seems** (that) something burns – it smells of smoke.'
      [https://hanimei-bibl.yam.muzkult.ru/.../Saveleva_Darya_Aleksandrov-na_skazka.pdf]

(16) *V   ėt-o   vrem-ja   iz   zal-a*
      in   DEM-ACC.SG.N time[N]-ACC.SG from   hall-SG.GEN
      *poslyša-l-i-s'   krik-i.   **Poxože**,   tam   drak-a.*
      hear[PFV]-PST-PL-RM cry-PL.NOM   similarly   there   fight[F]-SG.NOM
      'At this time, I heard cries from the hall. **It seemed** (that) a fight had begun there.'   [https://ficbook.net/readfic/6918653/18614089]

10.2.4 Extensions of perception-based inferentials: hearsay and remembrance

Only perception-based inferentials with a medium degree of epistemic support have been observed to acquire a reportive function. This functional shift within evidentiality has been dealt with in Bulygina and Šmelev (1992: 133, 1997: 298–

304) and Wiemer (2008). However, for most of these units, the degree of conventionalization of this function remains debatable. Consider the following example, which can be taken as an assertion based on hearsay (among other possible knowledge backgrounds, such as in a comment on a picture):

(17)   *Ego   mat',*   ***kažetsja,***   *by-l-a*   *krasavic-ej.*
       his   mother[F]-(NOM.SG)   seemingly   be-PST-SG.F   beauty[F]-INS.SG
       '**It seems/they say** that his mother was a beauty.'

Another knowledge background into which only perception-based inferentials with a medium degree of epistemic support seem to expand is memory.[6] See an example from Bulygina and Šmelev (1997: 299):

(18)   *Meždu   nimi   by-l-a   ssor-a.*   *Ne*
       between   they.INS   be-PST-SG.F   quarrel[F]-NOM.SG   NEG
       pomnj-u   *iz-za*   *č-ego.*   ***Kažetsja,***
       remember[IPFV]-PRS.1SG   because.of   what-GEN   seemingly
       iz-za   kakoj-to   komissii ...
       because.of   some-GEN.SG.F   commission[F]-GEN.SG
       'There was a quarrel between them. I don't remember what it was about.
       Perhaps/It seems, it was because of some commission (...).' [Ju. Trifonov]

This example raises the question whether memory can count as a separate knowledge background, since what one remembers is in any case based on some personal experience, including hearsay. Yet, it is necessary to remember that, obviously, units with an established perception-based inferential meaning are attested in both extensions (reportive and "memory" function) because judgment is based on circumstantial facts. That is, these facts are not the result of generalizations over a sum of (recurrent) experience, but of episodic events. This seems to be the key to understanding how these extensions evolve and why they appear to be restricted to this specific subclass of inferential markers. Importantly, the inclusion of memory into the meaning of potential of evidential markers does not occur automatically, it is only activated in some cases.

10.2.4.1 [– perception]-based inferentials: borderline cases

Inferential units that either exclude perception as a trigger of inference or cover a very broad range of knowledge backgrounds are particularly problematic

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6 This has casually been noticed by Bulygina and Šmelev (1997: 299). However, we are unaware of any systematic research into this phenomenon. For a first step toward an explanation cf. Wiemer (2018b: 152–156).

when it comes to disentangling evidential (inferential) from epistemic meaning. This general point was made, for instance, in Faller (2011), Wiemer and Kampf (2012 [2015]), Wiemer (2018b: 150–152). Here we just want to point out certain recurrent phenomena on the "margins" of evidentiality, which can be united under the label of 'prospective' uses. The majority of markers with a vague evidential meaning potential, including *navernoe* and *skoree vsego*, show this type of usage. We are eager to establish whether some evidential components in the meaning potential of relevant units motivate their distribution on the "evidential periphery".

10.2.4.2 Predictions

Since predictions are about possible, or likely, future events, we might think that speakers normally cannot ground them on actual or concrete circumstances. Instead, their knowledge background relies on habits or some "usual course of events" anchored in their encyclopaedic knowledge. This is what we actually observe, although predictions made on the basis of the observation of actual or concrete circumstances at the moment of utterance are not excluded. Consider the following example:

(19) a. *Rebjat-a,*   **_dolžn-o_**   **_by-t',_**   *skoro*   *konč-at*
     guy-NOM.PL must-N   be-INF   soon   finish[PFV]-FUT.3PL
     [*skazal Myškin kivaja v storonu komnaty.*]
     'The guys **must** finish [their work] soon, Myskhin said, nodding in the direction of the room.' [V. Belousova: "Žil na svete rycar' bednyj". 2000]

It is not that Myškin has a specific argument for his judgment. His surmise is based on encyclopaedic knowledge: he just knows that 'the guys' (experts) usually accomplish their job rather quickly, and that the time span that has already passed by the time of the utterance is usually sufficient for them. If markers like *pozože* or *kažetsja* were used in (19a), this replacement would imply an expectable difference in the overall meaning of the sentence. For example, Myškin could have heard some noise from the room, and from this he infers that the guys are stopping their job and beginning to discuss some other matters. The markers *navernoe*, *navernjaka*, *vidimo*, *verojatno*, and *skoree vsego* are compatible with predictions as well, showing that the prediction context is different from the purely evidential one (some of these markers are hardly compatible with evidential contexts where the inference is based on concrete observations).

On the other hand, since predictions depend on specific cause-effect relations, markers which are otherwise typical for perception-based inferences (see

Section 10.2.2) can also occur in prediction contexts. Yet, they are less likely to be used in contexts where planning is involved (see Section 10.2.5.2); e.g., *poxože*, *kažetsja*, *sudja po vsemu*. *Vidno* is incompatible with the prediction context. Otherwise, the occurrence of such markers shifts the meaning from a predictive surmise to a prediction that is based on circumstantial facts: if, for instance, *sudja po vsemu* were used in (19a), the speaker would imply that a specific fact or clue allows the conclusion that the guys will finish their work soon. The context of prediction is also possible for *vidimo* and, more rarely, *očevidno* (see 19b). Note that these markers do not introduce any specific basis of inference.

(19) b. *Rebjat-a* ***očevidno*** *skoro* *konč-at*
         guy-NOM.PL   evidently   soon   finish[PFV]-FUT.3PL
         '**Evidently**, the guys will finish [their work] soon.'

10.2.4.3 Plans and desires

Another type of prospective context is planning and desire. In this case, the speaker expresses their own plans and preferences. Evidential and modal markers can be used just to convey politeness, especially if one's plans are unpleasant for one of the interlocutors. Consider an example:

(20) *Exat' ne xočetsja i*
      ja   ***navernoe*** *ne*   *poed-u.*
      1SG.NOM probably   NEG   ride[PFV]-FUT.1SG
      '[I don't feel like going and], **I think**, I won't.'
      [B. Okudžava: "Putešestvie diletantov (Iz zapisok otstavnogo poručika
      Amirana Amilaxvari)". 1971–1977]

Prospective contexts are not always distinguishable from contexts in which the inference is based on encyclopaedic knowledge. For instance, the speaker can say (19a–b) if they know that the guys usually work quickly or just if they are bored and want the guys to eventually finish their job. The only reading that can really be used with no basis of inference is the planning context.

For example, the marker *naverno(e)* is acceptable both in a planning and a prediction context. In (20), this marker is used as a purely modal unit: the speaker wants to say that they themselves do not want to go – though the speaker is not completely sure about their decision. In any case, here *navernoe*'s use is conditioned by volition. By contrast, *dolžno byt'* is compatible with predictions (see 17a), but sounds strange with plans. Thus, the insertion of *dolžno byt'* into (20) results in a change in meaning: on the basis of some more specific

cause-effect relation, the speaker <u>infers</u> that they won't go. For instance, it can be the case that the speaker has much to do and thus infers that this job will not be finished before the trip. This contrast would mean that, in the context of planning, *naverno(e)* can hardly be considered an evidential unit (it does not require or even prefer an inference basis to be present), while *dolžno byt'* can.

10.2.5 "Scientific" vs. "ordinary" inference

Some inferential markers are more typical in scientific discourse and sound strange in contexts in which inferences are made on an everyday experience. Consider the following example:

(21) *V   Sredn-ie   vek-a   tradicij-a   brosa-t'*
     in   middle-ACC.PL age-ACC.PL tradition[F]-NOM.SG   throw[IPFV]-INF
     *kam-ešk-i,   **sudja po vsemu**,   ne   preryva-l-a-s'.*
     stone-DIM-ACC.PL   presumably   NEG   interrupt[IPFV]-PST-SG.F-RM
     'In the Middle Ages, the tradition to throw little stones was **presumably**
     continued.'   [*Nauka i žizn'*, 2006]

Sudja po vsemu canonically denotes a logical (often scientific) inference (here, based on an analysis of Middle Age sources, which requires specialized knowledge). It is also frequent in argumentative journalistic genres, such as, for instance, in articles by political or economical analysts. The use of a marker such as *poxože* would sound inappropriate. This is not so much because it is more closely associated to perception-based triggers of inferences. For instance, *sudja po vsemu* would be permissible for an archaeologist who draws a conclusion on the basis of ancient artefacts digged out in an excavation site (see ex. 6). Rather, the difference between *sudja po vsemu* and *poxože* is that for *sudja po vsemu* specialized knowledge (and more scientific kinds of analysis) is necessary. In contrast, the perceived oddness of, e.g., *poxože* in (21) arises because *poxože* is usually used in contexts of everyday experience.

    Of course, *sudja po vsemu* is not prohibited outside scientific contexts. However, it may sound strange in purely emotional contexts, such as (21'):

(21') *U   tebja   poxože   / #sudja po vsemu   sovsem*
     at   you.GEN   similarly / presumably   completely
     kryš-a   poexa-l-a.
     roof[F]-NOM.SG   drive.out[PFV]-PST-SG.F
     'You seem to have gone completely crazy.'
                       [N. Leonov, A. Makeev: "Mentovskaja kryša". 2004]

Poxože sounds more natural in (21'), because the speaker does not really think that the addressee is completely crazy. He rather expresses his emotion, pointing to the fact that the addressee's behavior is strange, and he is surprised to see it. By contrast, the choice of *sudja po vsemu* would mean that the speaker logically judges that the addressee is crazy.

10.2.6 Inferentials with and without contextual support

Another parameter allowing for the subclassification of inferentials is the frequency, or consistency, of presence vs. lack of contextual support. Hereby, we mean the tendency with which an inferential marker occurs with, or without, other cues towards the same information source in the immediate context. By immediate context we mean typically in the same sentence with the respective marker. Note that the distinction between the basis of inference expressed in the same vs preceding, or following, sentence can also be relevant, it will not be pursued further here. Since this possible parameter depends on rather covert distributional patterns, it is difficult to handle, and only an acute analysis of a massive number of tokens for a larger number of different marker types would help to empirically test our intuition. Furthermore, note that this parameter does not entail any differences in the conceptualization of evidential meanings.

   To illustrate the difference, let us look at examples with *poxože*, which is a marker that does not show any stronger tendency toward being accompanied by other contextual elements or not. While (22) contains such support, (23) does not:

(22)   *Vperedi kjuvet.*
       Poxože   *tut*   *ve-l-o-s'*   *kak-oe-to*
       similarly   here   lead[IPFV]-PST-SG.N-RM   some-NOM.SG.N
       stroitel'stv-o.
       construction[N]-NOM.SG
       'There is a ditch ahead – **it seems** that some construction work has been
       carried out here.'   [P. Vološina, E. Kul'kov: "Marusja". 2009]

(23)   **Poxože**   *bud-et*   *dožd'.*
       similarly   be.FUT-3SG   rain-(NOM.SG)
       '**It seems** that it will rain.' (The speaker sees black clouds in the sky).

In (22), the inference basis 'there is a ditch ahead' is explicitly marked, while in (23), the speaker does not say directly anything like 'There are clouds in the sky', but based on the situation it is clear why the speaker claims that it will rain.

Some other markers are mainly used with contextual support, these are *vidno*, *kak vidno*, *dolžno byt'*:

(24) *On byl otkryt dlja obščenija i stremilsja k nemu –*
*posle smert-i   žen-y   on   **dolžno byt'**   oščušča-l*
after death-GEN   wife-GEN   he.NOM   must.be   feel[IPFV]-PST-(SG.M)
pustot-u.
emptiness-ACC
'He was open to communication and sought it – he **must** have felt lonely after his wife's death.'

> [G. Gorelik: "Andrej Saxarov". *Nauka i svoboda*, 2004]

(25) *Odnako   silenok   **kak vidno** / **vidno**   xvata-l-o*
however   force.DIM-(GEN.PL)   as   visible / visibly   suffice[IPFV]-PST-SG.N
na pervyj šag, vtoroj ne davalsja.
'However, his forces, **obviously**, sufficed only for the first step – he could not make the second one.'   [*Znamja*, 2008]

In (24), the conclusion that the man felt lonely is confirmed explicitly by his manifest desire, and it is motivated by his wife's death. Similarly, in (25), the claim that his strength sufficed only for a first step is immediately confirmed by the fact that the subject could not make the second one.

Other markers, such as *kažetsja*, tend to be used without contextual support. The next example is quite typical:

(26) *– Aga, – usmexnulsja Gorlonos, zametiv, čto na Paške prjamo-taki lica net ot perežitogo ispuga.*
*– **Kažetsja**,   ty   sil'no   ispuga-l-sja.*
seemingly   2SG.NOM   strongly   frighten[PFV]-PST-(SG.M)-RM
'– Aha, Gorlonos grinned, as he noticed that Paška had lost his face from the fright he had experienced.
– It **seems** that you got terribly frightened.'

> [M. Tyrin: "Budet nemnožečko bol'no". 2014]

For this utterance, the factual basis triggering the inference entirely relies on the communicative situation. This use allows for the reading that the speaker sees something (e.g., the expression of Paška's face or his behavior) that can be considered indicative of fear. Crucially, the preference for lack of contextual support for an inferential meaning does not correlate with the range of vagueness of possible knowledge backgrounds. There may be several very different triggers for the assertion conveyed in (26), and this depends on the concrete situation of the utterance. For as long as the usual evidential restrictions of

kažetsja are met – namely, that there is a perceptual basis for the inference – any specific circumstances, and interpretations, are compatible with (26), and these circumstances need not be mentioned explicitly.

We can say that if an inferential marker is not accompanied by elements offering contextual support, the concrete evidential basis is deictically anchored in the communicative situation. For instance, the presence of clouds in (23) or Pashka's facial expression in (26) are taken as sufficient cues to justify the use of the inferential markers in the current stretch of discourse (and to make any more specific verbal explication appear superfluous).

Of course, in principle, any kind of evidential background, either deictically present in the situation or presupposed by personal background knowledge, can be considered sufficient to make verbal support for an evidential marker redundant – at least in theory. However, empirically, we observe that markers behave differently when it comes to spelling out the knowledge basis, as in the following example. *Poxože* and *kažetsja* are usual without any additional explanation. If we use *dolžno byt'* or *kak vidno*, it is necessary to add some additional context (e.g., 'There are plenty of empty bottles on the table and the floor'):

(27) **Poxože/kažetsja**,   *večerink-a*   *uda-l-a-s'*
      Similarly/seemingly   party[F]-NOM.SG   succeed[PFV]-PST-(SG.F)-RM
      na   slavu.
      on   fame-ACC
      '**It seems** the party was great.'

It might seem that perception-based inferential markers are more apt to "do without" additional verbal information. However, up to now we have been unable to establish whether this is really a rule.

10.2.7 Summary on inferentials

The main distinctions among inferential markers illustrated above are summarized in Table 1. The table does not include predicatives, which will be discussed in Section 10.2.9.

Two markers, often regarded Russian evidential units – *budto* and *budto by* 'as if, as though' – are not mentioned here because, as particles, they do not seem to be used inferentially. Instead, they mainly occur in comparisons and as reportive markers.[7] At the same time, used as complementizers, they can have an inferential-like reading (see Section 10.4).

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7 Cf. Letuchiy (2008a, b) on the affinity of comparative and evidential uses.

Table 1: Distribution of inferential markers (basic parameters): 'middle', 'high' specify the approximate range of epistemic strength.

Circumstantial–inference based on:			Remembrance	Deductive, encyclopaedic	
Sensory perception	**(Propositions of) speech acts**	**Other**		**Predictions**	**Plans**
kažetsja (middle, +visual, +direct), *poxože* (middle, +direct), *sudja po vsemu* (middle, −direct), *javno* (high, +direct), *vidno* (middle, −visual, −direct), *?vidimo* (middle, +visual, −direct), *očevidno* (middle, −direct)	*poxože* (middle), *sudja po vsemu* (middle), *vidno* (middle), *vidimo* (middle)	*sudja po vsemu* (middle), *poxože* (middle), *navernjaka* (high), *navernoe* (middle), *vidimo* (middle)	*kažetsja* (middle), *kak budto by* (middle)	*vidimo* (middle), *dolžno byt'* (middle), *naverno(e)* [8] (middle), *skoree vsego* (middle), *navernjaka* (high), *očevidno* (middle)	*vidimo* (middle), *naverno(e)* (middle)

Our treatment of these markers as those with high – low – middle epistemic strength is largely based on intuition. However, by and large, our approach is not in conflict with the experimental study performed by Krause (2007), who describes epistemic strength of Russian modal adverbs based on a survey with native speakers. Each participant had to locate an answer containing a unit like *navernoe*, *vidimo*, etc., on a scale from '1' (very high epistemic support) to '5' (very low epistemic support). Krause's results are similar to ours.

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8 The variants *naverno* and *navernoe* seem to be synonymous. The only difference is that *navernoe* is slightly more bookish, which, however, is not a strict rule: both markers can be used in a broad range of styles and language types, including colloquial, formal, scientific, journalist and other speech varieties.

Table 1 does not contain any marker with weak epistemic support; this is why *možet byt'* and *vozmožno* are missing in our table. They are accounted for in Krause (2007), where these two units were assigned the lowest epistemic strength of all. Concomitantly, they do not exhibit any specific inferential potential, as they can be used with practically any kind of knowledge basis for inferences and are acceptable in the context of plans and predictions:

(28) *Ja,*   **mož-et by-t'** */ vozmožno*   *ne*   *poed-u.*
      1SG.NOM   maybe   / possibly   NEG   go[PFV]-FUT.1SG
      '**Maybe** I will not go.'

They thus can only be qualified as epistemic modifiers.

To distinguish roughly between high – middle – low epistemic support, we propose two diagnostic contexts:

Crit1: Is it possible to use an utterance containing the marker X and then, immediately, a contradicting utterance that also contains X?

Crit2: Is it possible to use an utterance containing the marker X and then, immediately, something like *no ja ne uveren* 'but I am not sure'?

Table 2 shows the results after applying these two criteria to the markers listed in Table 1.

Table 2: Approximate degree of epistemic support.

	Crit1	Crit2
javno	–	–
navernjaka	–	–
kažetsja	–	+
poxože	–	+
sudja po vsemu	–	+
vidno	–	–?
vidimo	–	+
očevidno	–	+
navernoe	–	+
kak budto by	–	+?
dolžno byt'	–	+
skoree vsego	–	+
vozmožno	+	+
možet byt'	+	+

Javno and *navernjaka* do not occur in either of these contexts, since their occurrence is linked to high epistemic support and, thus, they do not allow for the expression of doubt in the immediate contexts. With *vozmožno* and *možet byt'*, both contexts are possible because they only set a non-zero probability of the situation, roughly with a 50%-likelihood to hold true for both the proposition P and its negation (¬P). Finally, the other markers are impossible under Crit1, but possible under Crit 2: they do not imply that the speaker is sure that the situation occurred, but, nevertheless, imply that the situation is more probable than the opposite one.

10.2.8 Predicatives related to sensory perception

Finally, for some cases the contrast of strong epistemic support vs non-factual reading might turn out to be an additional useful parameter for the subclassification of inferential markers. In Russian this contrast can correlate with different syntactic usage types of heterosemic units. *Poxože* 'similarly' behaves either like a predicative or like a particle. In particle use, it implies strong epistemic support (see 29a), whereas as predicative *poxože* does not bear such an implicature (see 29b);[9] instead, it only denotes the speaker's impression that the actual situation (not expressed in 29b) is <u>similar</u> to the real situation, and the speaker understands that the verbalized proposition (modified by *poxože*) is distinct from the real one. This is why the speaker can continue by describing the real situation (29b), whereas in particle use continuing in this way sounds inappropriate (29a); cf. Letuchiy (2010: 362f.):

(29) a. *Poxož-e, Vasj-a   upa-l.*   particle
          similarly PN[M]-NOM.SG   fall[PFV]-PST-(SG.M)
          (#No na samom dele on stoit kak štyk.)   strong epistemic support,
                                                                inferential meaning

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9 A reviewer expressed doubt that the presence vs absence of a complementizer differentiates the two uses of *poxože* so that they are different units. However, we hold that the use of *poxože* in (29a) and (29b) can be considered as an indication of two different units, irrespective of presence vs absence of *čto*, for the following reason. When used without the complementizer, *poxože* does not have a fixed position in the sentence; it can be placed behind *Vasja* or even behind the last word, *upal* 'fell'. This flexibility is characteristic of particles, not of predicatives. We do not find the flexibility when *poxože* is used with *čto*. In this case, *poxože* cannot be placed in the rightmost position, and it sounds strange if it is located after *Vasja*. This is typical of predicatives.

        'Vasja has fallen, it seems.' (lit. 'looks like')
        (#'But in actual fact he is standing straight as a post.')

    b.   *Poxože, čto Vasj-a upa-l.*   predicative
        similarly COMP PN[M]-NOM.SG fall[PFV]-PST-(SG.M)
        (*No na samom dele on stoit kak štyk.*)   weak epistemic support
        'It looks/seems as if Vasja has fallen.'
        ('But in actual fact he is standing straight as a post.')

The same functional opposition applies for the two uses of *kažetsja* 'seems': as "ordinary" verb with a finite clausal argument (introduced by *čto* 'that'), and as a particle-like parenthetical (fossilized verb form, see ex. 1a, 12a, 15, 17–18, 26–27).

    There are two other markers which demonstrate the same type of heterosemy as do *poxože* and *kažetsja*. However, they do not share their epistemic contrast: *vidno* 'visibly, obviously' and *očevidno* 'obviously'. Their predicative use shows stronger epistemic support than *kažetsja* and *poxože*; this becomes manifest in the fact that the proposition they modify cannot be negated in a subsequent clause (compare 29b with 30a). *Vidno* and *očevidno* are very similar in that, as predicatives, they function like inferentials with strong epistemic support, while as particles epistemic support is weaker. Compare for *vidno*:

(30) a.   **Vidno, čto** *on napuga-n.*   predicative
        visible COMP he.NOM scare-PPP-(SG.M)
        (#*No na samom dele on čuvstvuet sebja otlično.*)
                             strong epistemic support
        'It is **visible/evident that** he is scared.'
        (#'But in actual fact he feels very good.')

    b.   **Vidno** *on napuga-n.*   particle
        visible he.NOM scare-PPP-(SG.M)
        '**Presumably/seemingly**, he is scared (but, perhaps, not).'

In contrast to *vidno*, which can be used for direct perception as a predicative, *očevidno* rarely denotes direct perception, but is better suited for inferences of a more deductive nature; compare:

(31) a.   **Očevidno, čto** *ėt-a teorem-a ne*
        obviously COMP DEM-NOM.SG.F theorem[F]-SG.NOM NEG
        dokazyva-et-sja.
        prove[IPFV]-PRS.3SG-RM
        'It is **obvious that** this theorem cannot be proven.'

    b.   **Očevidno**, *ėt-a teorem-a ne*
        obviously DEM-NOM.SG.F theorem[F]-SG.NOM NEG

dokazyva-et-sja.
prove[IPFV]-PRS.3SG-RM
'**Presumably/seemingly**, this theorem cannot be proven.'

Many other sentence adverbs (or adverbial expressions) of those discussed above are not used as predicatives and they are not heterosemic at all; consider *javno, vidimo, naverno(e), navernjaka, sudja po vsemu, skoree vsego, dolžno byt'*.

Some other units are more peripheral for the evidential domain and/or for the modern language as such. For instance, *znat'* is an inferential marker; it is not used as a predicative, but only parenthetically as a particle, with a function close to *vidimo* and *vidno*; e.g., *Davno, **znat'**, zverja ne myli* '**Obviously/Presumably**, the animal has not been washed for a long time' ("Sovetskaja Rossija", 2003.04.24*). Znat'* is rarely attested in modern Russian. All these remarks furthermore apply to *vidat'* 'seemingly' (originally the infinitive of 'see', cognate to *vide-t'*.INF < *vidě-ti* 'see'). Both *znat'* and *vidat'* are predominantly not used for direct perception, but for conclusions based on perception.

Slyxat' 'hear' (another old infinitive, this time cognate to *slyša-t'*.INF 'hear') and *slyšno* '(it is) hearable' refer to an auditory source. *Slyxat'* can also be used in reportive contexts; in this function it is used as a particle or as a predicative with finite clausal complements (introduced by *čto* 'that' or, if *slyxat'* is negated, by *čtoby* 'that, in order to', which is, however, not found in the corpus).[10] The topic of speech can be marked with the preposition *o* 'about' or *pro* 'about'; e.g., *I rasse-l-i-s' oni po gorod-am i stolic-am i **ne slyxat'** o nix* 'And they moved to different towns and capitals, and one **does not hear** anything about them'. In auditory function, *slyxat'* conveys a meaning of circumstantial modality ('it is hearable', 'one can hear'). It is mainly used with an accusative or (if negated) a genitive NP (*vystrel-ov*.GEN.PL *ne slyxa-t'* 'One can't hear any shots').

Slyšno '(it is) hearable' occurs with the same two kinds of use: reportive and auditory perception, although in comparison to *slyxat'* it is employed very rarely in reportive function. If it however is used in this function, its arguments can be realized in the same way as with *slyxat'*, possibly except the pattern with the topic encoded by a PP (?*slyšno o zabastovk-e*.LOC / *pro zabastovk-u*.ACC 'one can hear about a/the strike'). Unsurprisingly then, *slyšno* rarely occurs as a parenthetical, since this use is typical for reportive (and for inferential) use.

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10 See an example from Tolstoj: <u>*Ne slyxat'*</u>, **čtoby** *ona govorila èto* 'One cannot hear (say) **that** she has told this' (L. N. Tolstoj: "Krejcerova sonata". 1890).

10.3 Reportive units

Russian has only very few truly reportive units, at least if we do not account for items with an indiscriminate use within indirect evidentiality (see Section 10.5). Other units that are often mentioned can either be better characterized as quotatives (see Section 10.6.3), or the status of their epistemic overtones renders them controversial, as it is debatable whether these involve inextricable meaning components (so that we would be dealing with a stable reportive-epistemic syncretism) or whether these meaning components are actually commonly associated and, thus, should be considered pragmatic components that can be cancelled. Note that practically all of these units are etymologically derived from comparison markers, and all of them behave as particles (not as predicatives or complementizers).

The parameter of contextual support, discussed for inferential markers (see Section 10.2.7), is less informative in the reportive domain. Of course, quotatives and similar units, described in Section 10.6, require some contextual support, simply because they are rooted in the speech event they quote. On the other hand, reportive markers in the proper sense, namely *jakoby* and *budto by*, as well as *vrode (kak, by)*, can all be used with or without a direct mention of the information source, i.e. the original utterance(s).

10.3.1 *jakoby*

Let us start with *jakoby*. Rakhilina (1996) and Plungjan (2008: 304) point out that *jakoby* is used not so much to rephrase some sort of utterance, but rather to interpret facts (implied by the propositional content of utterances). Other researchers have described *jakoby* "as expressing the falsity of a proposition contained in somebody's utterance, in conjunction with a negative assessment of the utterer as aware of its falsity" (Apresjan and Šmelev 2017, abstract).[11] That is, *jakoby* may signal not only falsity of the propositional content, but impute that its source (the original speaker(s)) was consciously lying. Examples (32)–(33) are typical in this respect:

(32)　*Nikolaev　　i　　Golubovič　　obvinja-l-i-s'　　　v　t-om,*
　　　PN-(NOM.SG)　and　PN-(NOM.SG)　accuse[IPFV]-PST-PL-RM　in　DEM-LOC.SG.N

11　For this reason, *jakoby* was labelled 'depricative' in Sergeeva (2010: 149).

čto   oni   **jakoby**   nanes-l-i   neskol'ko udar-ov
COMP   they.NOM   reportedly   inflict[PFV]-PST-PL   several   hit-GEN.PL
drevk-om   flag-a   sotrudnik-u   milici-i.
shaft-INS.SG   flag-GEN.SG   employee-DAT.SG   police-GEN

Pri takix xarakterizujuščix dannyx (...) nikogo i nikogda ne arestovyvajut i ne sažajut. Zdes' že Tverskoj sud Moskvy dal im po tri goda lišenija svobody! Èto pri tom, čto u poterpevšego milicionera edinstvennym posledstviem „izbienija" bylo povyšenie po službe.

'Nikolaev and Golubovič were accused of {**jakoby**} having beaten a representative of the police by hitting him several times with a flag shaft. For such actions nobody had ever been arrested, nor put to prison. But the court of the Tverskoj district in Moscow sentenced each of them to three years in prison! All this is especially strange given the fact that the only consequence of the "beating" for the victim was his promotion.'

[*Zavtra*, 2003]

Admittedly, in most contexts, *jakoby* combines the reference to other people's assertions with a negative epistemic assessment of the aforementioned kind. Nonetheless, this marker can be void of such overtones and be used as a simple sign of reportive evidentiality. It appears that this use has recently gained in frequency, at least in journalistic genres. Compare the following two examples (cited from Apresjan and Šmelev 2017):

(33)   *On   utveržda-et,   čto   **jakoby**   sam*
       he.NOM   claim[IPFV]-PRS.3SG   COMP   reportedly   self-(NOM.SG.M)
       priduma-l   ėt-u   teorem-u.
       invent[IPFV]-PST-(SG.M)   this-ACC.SG.F   theorem[F]-ACC.SG
       'He claims that {**jakoby**} he came up with this theorem himself.'

(34)   *On   skaza-l,   čto **jakoby**   ne   bra-l*
       he.NOM   say[PFV]-PST-(SG.M)   COMP reportedly   NEG   take[IPFV]-PST-(SG.M)
       u   nee   den'g-i.
       at   her.GEN   money-ACC
       'He said that {**jakoby**} he did not take her (lit. from her) money.'

While the speaker of (33) rather clearly implies that the original speaker told a lie, Russians evaluate (34) differently. Informants diverge as for whether the proposition 'I didn't take any money from her' can be assumed to be true or not, or rather: whether the speaker of (34) wants to stay agnostic. In instantiations like these, *jakoby* can serve the additional purpose of a hedge.

Moreover, *jakoby* can also be used to refer to human behavior. Consider the following example:

(35) *(…) vdrug   v   poslednee   mgnoveni-e   xvata-l*
      suddenly   in   last-ACC.SG.N   moment-ACC.SG   grab[IPFV]-PST-(SG.M)
      *gitaru   i,   **jakoby**   brjacaj-a   po   strun-am,*
      guitar-ACC.SG   and   reportedly   rattle-CONV.PRS   on   string-DAT.PL
      zapeva-l (…).
      begin.to.sing[IPFV]-PST-(SG.M)
      'Suddenly, at the last moment, he used to grab the guitar and, **as if**
      rattering with the strings, started singing (…)'
      [F. Iskander: "Mučeniki sceny". 1989; cit. from Apresjan and Šmelev 2017]

It is an open question whether this function is a relic of *jakoby*'s original function as a comparison marker (see Section 10.7), or rather an extension of its reportive use. Its original function as a comparison marker can still be grasped in examples like (36):

(36) *Slyš-it   li   menja   na   vos'm-om   rjad-u*
      hear[IPFV]-PRS.3SG   Q   1SG.ACC   on   eighth-LOC.SG.M   row[M]-SG.LOC
      tot   sam-yj,   sidj-ašč-ij   v   poz-e
      DEM-(NOM.SG.M)   same-NOM.SG.M   sit-PPA-NOM.SG.M   in   pose-LOC
      jakoby   *kučer-a?*
      reportedly   coachman-GEN.SG
      'Does that person who sits in the eighth row **as though** in a coachman's
      pose hear me?'   [*Stolica*, 1997; cit. from Apresjan and Šmelev 2017]

By contrast, *jakoby* is only rarely encountered as a marker of quoted speech.

The predominant employment of *jakoby* as a marker of hearsay is a rather recent development, as can be deduced from remnants of inferential or even non-evidential use. The prevalence of reportive function correlates with a loss of use as a complementizer (see Section 10.7). The epistemic component, in turn, proves to be a constant feature of *jakoby* over the centuries, which has "survived" after this unit became prominent in evidential use (Wiemer 2008: 363–365; Lazar 2011: §4).

10.3.2 *budto by*

Another salient reportive marker is the particle *budto by*. Its epistemic meaning component expressing doubt can be cancelled. For instance, in (37) *budto by* is

used in the context of a story which lacks proof by documents, so that it easily triggers a moment of doubt:

(37) *On*   ***budto by***   *uexa-l*   *v*   *teatr*
      he.NOM   reportedly   leave[PFV]-PST-(SG.M)   to   theatre-ACC
      nebol'š-ogo   *gorod-a.*
      small-GEN.SG.M   town[M]-GEN.SG
      '**Reportedly** (as he said), he went to a theatre of a small city.'
                                        [A. Èfros: "Professija: režisser". 1975–1987]

On the other hand, examples in which doubt in the veracity of the reported assertion(s) is cancelled, are not too difficult to come by, either; compare the following example:

(38) *Odnako on vse ponjal vser'ez i*
      skaza-l   *čto*   ***budto by***   *i*   *sam*
      say[PFV]-PST-(SG.M)   COMP   reportedly   PTC   self-(NOM.SG.M)
      ob   *ėt-om*   *duma-l.*
      about   DEM-LOC.SG.N   think[IPFV]-PST-(SG.M)
      'However, he took everything seriously and said that, **reportedly**, he had also thought about it.'   [A. Dmitriev: "Voskoboev i Elizaveta". 1992]

The prominent reportive use distinguishes *budto by* from other markers of the "*budto*-family" which can be used in other syntactic functions, e.g., as complementizers (cf. Letuchiy 2010); see Section 10.4.

10.3.3 Emergent reportive markers

The particle *vrode* and its variants *vrode by* and *vrode kak* may be regarded as emergent reportive markers. The distribution of the three variants is not predictable; most contexts relevant for the analysis of evidentiality are compatible with all of them. The markers imply a low or medium degree of certainty (i.e. partial, or weak, epistemic support), and, again, *vrode* derives from a comparison unit (< *v rod-e* 'in kind-LOC').

In their reportive use, *vrode*, *vrode kak* and *vrode by* typically follow speech act verbs or constructions (see example 39). It can thus be argued that these markers just "copy" (or "inherit") the reportive meaning component from these verbs. However, we also encounter examples like (40) where *vrode (kak, by)* does not follow a speech act verb:

(39) *Mne   govori-l-i   vrode ty   samovar*
     1SG.DAT say[IPFV]-PST-PL as.if 2SG.NOM samovar-(ACC.SG)
     proda-eš'.
     sell[IPFV]-PRS.2SG
     'People told me, **allegedly** you are selling a samovar.'
                                      [P.F. Nilin: "Znamenityj Pavljuk". 1937]

(40) [First, the addressee said that he was no longer using abusive words.
     Then, he utters the word *govno* 'excrements' (colloquial), and the
     speaker points him to the fact that he promised not to swear.]
     Ty   že   vrode (vrode by, vrode kak)   peresta-l
     2SG.NOM PTC as.if   stop[PFV]-PST-(SG.M)
     ruga-t'-sja.
     swear[IPFV]-INF-RM
     'You, **reportedly**, stopped to swear.' [A. Gelasimov: "God obmana". 2003]

From the larger context in (40) it is deducible that *vrode (kak, by)* refers to the
addressee's speech act as source. Speech act reference can even be stated ex-
plicitly; compare a constructed example:

(41) *On   vrode (vrode by, vrode kak)   uezža-et*
     he.NOM as.if   go.away[IPFV]-PRS.3SG
     v   Germanij-u.
     in   Germany-ACC
     Ego sestra mne tak govorila.
     '**Reportedly,** he is going to Germany. His sister told me.'

This seems to mirror the situation which we observed with perception-based
inferential markers. Some of them can be used if the inference is derived from a
speech act (see Section 10.2.1). It thus appears that *vrode (kak, by)* has been
encroaching on reportive contexts as an inferential marker and that, as an
emergent reportive marker, it is just more "advanced" on this road from
inferentiality than other perception-based inferential markers.[12] Contrary to
those markers, *vrode (kak, by)* only rarely appears in clearly inferential con-
texts;[13] compare a constructed, though acceptable, example:

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12 On this road and its possible explanation cf. Wiemer (2008: 359–372). See also Section 10.5.
13 In this respect, the analysis in Wiemer (2008: 353–356), where the next example was ad-
duced, has to be corrected.

(42) *Posmotri,* **vrode** *dožd'* *sobira-et-sja.*
      look[PFV]-IMP.SG as.if rain-[M]-(NOM.SG) collect[IPFV]-PRS.3SG-RM
      'Look, it is **(obviously)** going to rain!'

Nonetheless, *vrode (kak, by)* usually implies uncertainty. Normally, reportive use cannot be disentangled from this modal element, and often *vrode (kak, by)* simply indicates uncertainty (e.g., because of a vague memory).[14] However, this does not always apply; compare, for instance, ex. (40), where the speaker firmly remembers what the hearer said before. The speaker uses *vrode*, as if they re-narrated another speech act, simply because they do not want to insult the hearer by pointing out the mismatch or inconsistency of his opposite's utterances and his current behavior. Thus, *vrode* here primarily functions as a hedge, and reference to speech acts remains in the background.

It may even be argued that *vrode (kak, by)* has evolved two separate functions namely as an emergent reportive marker and a hedge expression. For the latter see a constructed example:

(43) A: *U* *tebja* *s* *mašin-oj* *vse* *xorošo?*
         at you.GEN with car everything-NOM.SG.N well
      B: *Da,* **vrode (vrode by, vrode kak)** *ne* *žaluj-u-s'.*
         PTC as.if NEG complain[IPFV]-PRS.1SG-RM
      'A: Is everything OK with your car?
      B: Yes, **it seems** there is nothing to complain about.'

Here, evidential markers like *poxože* are inappropriate, because (43) lacks any specification of a basis for an inference. Such a basis is even irrelevant for the communicative purpose, which is just to comment on the speaker's current behavior and feeling. *Vrode (kak, by)*, in turn, is compatible, but not as an evidential (reportive) marker, rather as a hedge which can be connected to its diachronically primary function as a comparison marker (see Section 10.7).

Thus, *vrode* is not evidential to the same degree as *poxože* and *kažetsja,* since no specific, perceptual basis of judgment is necessary for its use. At the same time, *vrode* (*by, kak*) is not similar to markers like *skoree vsego* or *navernoe* with a broad range of uses, including prospective ones, such as plans and predictions (see Section 10.2.5).

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14 This component can be paraphrased as follows: 'I am not sure that P, but I know nothing that contradicts P. This is why I think that P.'

10.4 Complementizers

In this section, we summarize findings on complementizers with evidential meaning or, in other words, findings on evidential markers which can be considered complementizers by analysing their syntactic behavior. We used two tests which are sensitive to typical properties of complementizers:

(i)   Ability to introduce a modification of nominalizations:
        Not all nominalizations from CTPs can also take complement clauses (cf. Grimshaw 1990 and Knjazev 2012 for details). For instance, the verb *vyjasnjat'* 'find out' is compatible with indirect questions ('find out who is guilty'), while the deverbal noun *vyjasnenie* 'finding out, analysis' appears marked in indirect questions.

However, all canonical complementizers in Russian (e.g., *čto, čtoby*) modify nominalizations at least in <u>some</u> cases (Knjazev 2012; Letuchiy 2012). In other words, if a particular unit <u>never</u> modifies a nominalization, this probably means that the properties of the CTP are irrelevant, and the key problem is that the unit is simply not a complementizer. If a unit is compatible with some nominalizations and incompatible with others, this does not by necessity mean that it is not a complementizer.

(ii)   Possibility of the clause with the hypothesized complementizer to be inserted in the middle of the presumed matrix clause (center-embedding).

In classical works, the possibility to change the position (together with the complementizer/conjunction) is regarded a principal property of embedded clauses, which distinguishes them from coordinate ones (cf., for instance, Ross 1968 and as early as Peškovskij 1956).

Of course, we do not claim that it is only these tests which allow to discern complementizer properties of evidential units; there may be more. However, for the current purpose, we assume that markers which pass tests (i) and (ii) are complementizers, and those that do not pass any of them are not. Units that pass only one of the two tests are intermediate between complementizers and other types of markers (evidential particles, adverbials, or else). In this respect, we can speak of complementizers as a gradient concept.

10.4.1 List of complementizers and their combinatorial properties

Two markers of the "*budto*-family" are widely used in a complementizer-like fashion: *budto* and *kak budto* (see Section 10.6.5: lexemes with *by* are less frequently used as complementizers than those without *by*). Apart from them,

slovno (by), *točno* (rarely with *by*) are also attested, however even more rarely. Finally, the members of the "*vrode*-family" – *vrode*, *vrode by*, *vrode kak* – all happen to be used in a way that, on first sight, is reminiscent of complementizers. However, the aforementioned tests show that they are particles rather than complementizers (see below).

Table 3 shows the results of the two tests mentioned above for these markers. *Točno* and *slovno* are not included as they are rarely attested with complementizer function (see however ex. 45–46 below) A more detailed analysis of the syntactic behavior will be presented in Section 10.4.2.

Table 3: Complementizer tests for *budto*- and *vrode*-units.

	Ability to modify nominalizations	Ability to be inserted in the main clause
budto (by)	+	+
kak budto (by)	+	+
vrode, vrode kak, vrode by (by)	–	–

As the table shows, the complementizer status of *budto (by)* and *kak budto (by)* is rather obvious, whereas it is better not to consider *vrode*, *vrode by* and *vrode kak* complementizers. Anyway, apart from their evidential function, all of them are compatible with different epistemic assessments of the relevant proposition. Thus, they can be used with CTPs denoting an unreal situation (e.g., after *snit'sja* 'dream', *kazat'sja* 'seem') or a speech act. As for speech acts, they can occur after very different verbs, such as verbs implying a negative evaluation of the propositional content of the reported speech act (e.g., *boltat'* 'jabber', *vrat'* 'lie') or some cognitive distance to this content (*utverždat'* 'claim'), but the verbs may also be neutral in this respect (*govorit'* 'say, speak'). In the latter two cases, *budto* and *kak budto* are used in order to mark that the speaker questions the credibility of the reported proposition or emphasizes epistemic distance. Thus, in these contexts, it is the semantic potential of the complementizers which adds the epistemic component to the utterance, not the matrix verb (cf. also Zaitseva 1995: 20–27).

Regardless of this, *budto (by)* and *kak budto (by)* differ in their compatibility with CTPs. Comparing all markers with each other, *budto* behaves as a complementizer most frequently, and it shows the widest range of CTPs, including *dream*-predicates (*snit'sja* 'dream'), pretence predicates (*pritvorjat'sja* 'pretend'), memory predicates (*pomnit'* 'remember'), mental states (*dumat'* 'think',

ščitat' 'consider'), speech act verbs (*govorit'* 'say', *vrat'* 'lie'), perception verbs (*videt'* 'see'), and emotional verbs (*čuvstvovat'* 'feel'). By contrast, for *kak budto* the range of possible CTPs is muchnarrower. For instance, *kak budto* only rarely introduces clausal arguments of speech act verbs in the RNC and in Google; with *snit'sja* 'dream' such occurrences are almost unattested in the RNC, although constructed examples sound acceptable. Combinations with cognition predicates are possible:

(44)   *I*   *mne*   *kaž-et-sja,*   **kak budto**   *ja*   *ego*   *i*
       and   1SG.DAT   seem[IPFV]-PRS.3SG-RM   as.if   1SG.NOM   he.ACC   and
       ne   *podvodi-l*   *v*   *tak-ix*   *del-ax.*
       NEG   let.down[IPFV]-PST-(SG.M)   in   such-LOC.PL   affair-LOC.PL
       'And it seems to me **that [as if]** I have not let him down in affairs like this.'
                                         [A. Mikojan: "Tak bylo". 1971–1974]

The marker *točno* occurs very rarely in complementizer function. All occurrences found thus far sound marked for the intuition of a modern native speaker, except for cases in which *točno* follows the CTP *kazat'sja* 'seem'; compare:

(45)   *Pečigin-u*   *často*   *i*   *v samom dele*   *kaza-l-o-s',*   **točno**
       PN-DAT.SG   often   PTC   in.fact   seem[IPFV]-PST-N-RM   as.if
       on   *govori-l*   *č'-i-to*   *podskazann-ye*
       he.NOM   say[IPFV]-PST-(SG.M)   someone's-ACC.PL   suggested-ACC.PL
       emu   *fraz-y.*
       he.DAT   phrase-ACC.PL
       'In fact, it often seemed to Pečigin **as though** he was saying phrases, prompted to him by someone else.'
                                  [E. Čižov: "Perevod s podstročnika". 2012]

The marker *slovno* is only found with the verbs *snit'sja* 'dream' and *kazat'sja* 'seem', and even these contexts are rare:

(46)   *Mne*   *sni-l-o-s',*   **slovno** *ja*   *podnimaj-u-s'*   *vverx.*
       1SG.DAT   dream[IPFV]-PST-N-RM   as.if   1SG.NOM   rise[IPFV]-PRS.1SG-RM   up
       'I dreamt **as though** I was rising.'
                                 [Forum: "Sny v stile kiber-real'nosti", 2011]

It follows from this survey that CTPs can be organized along a scale based on their (in)ability to host clauses with emergent evidential complementizers. *Kazat'sja* 'seem' and *snit'sja* 'dream' occupy a more privileged place on the scale than speech act verbs and verbs denoting cognitive attitudes.

      Furthermore, *budto* has an interesting feature which points to its acquisition of complementizer function. Sometimes, *budto* is used under negation with

logical relation verbs, such as *značit'* 'mean' or *označat'* 'mean'. These verbs can take *budto* only if they are negated (without negation the default complementizer *čto* would be used):

(47) a.   *Ėt-o*   *znač-it*   ***čto / *budto***
          DEM-NOM.SG.N   mean[IPFV]-PRS.3SG   COMP as.if
          on   *vor.*
          he.NOM   thief[M]-NOM.SG
          'It means **that** he is a thief.'

      b.   *Ėto*   *ne   značit*   ***čto /   budto***
          DEM-NOM.SG.N   NEG mean[IPFV]-PRS.3SG   COMP as.if
          on   *vor.*
          he.NOM   thief[M]-NOM.SG
          'It does not mean **that** he is a thief.' (lit. '**as though** he is a thief')

However, this alternation does not have much to do with the evidential function of *budto*. Notably, this alternation is not observed with speech act predicates, which allow *budto* both with and without negation. It seems that the opposition between (47a) and (47b) emerged just because of the general component of uncertainty (or irreality) conveyed by *budto*, i.e. rather because of an epistemic component.

By a similar token, the domain in which *budto* is used as an alternative to *čto* differs from the domain in which *čtoby* alternates with *čto*. As mentioned above, *budto* is compatible with verbs of logical relation, while *čtoby* is characteristic of cognitive verbs (*dumat'* 'think', *somnevat'sja* 'doubt') and, sometimes, speech act verbs (*govorit'* 'say'); cf. Dobrušina (2016) for details.

Furthermore, although *vrode*, *vrode by* and *vrode kak* do not pass our complementizer tests (see above), they do have uses close to complementizers in that they occur at the very beginning of a clause introduced by a CTP. Sometimes, in those cases, no real complementizer is used:

(48) *Mne   govori-l-i*   ***vrode kak*** *spravk-a*
      1SG.DAT say[IPFV]-PST-PL   as.if   reference[F]-NOM.SG
      kakaj-a-to   *neobxodim-a.*
      some-NOM.SG.F-PTC   necessary-NOM.SG.F
      'People told me **that [as though]** some document is needed there.'
                              [https://www.urist.in.ua/showthread.php?t=34736]

At the same time, there are examples in which *čto* 'that' precedes *vrode*, *vrode by* or *vrode kak*. Since the complementizer position is already occupied by *čto*,

the markers of the *vrode*-group can be situated either at the beginning or in the middle of the embedded clause:

initial position of *vrode*-group markers

(49) Ėto   ne   pro   vas   li propečata-l-i   v gazet-e   čto
     PTC NEG about 2(PL).ACC Q print[PFV]-PST-PL in newspaper-LOC COMP
     vrode devčonk-u iz-pod   mašin-y spas-l-i?
     as.if   girl-ACC.SG from.under car-GEN rescue[PFV]-PST-PL
     'It weren't you about whom the newspaper published an article, saying
     that you **(as though)** prevented a girl from being hit by a car?'
                                    [M. Sergeev: "Volšebnaja galoša…". 1971]

(50) A   potom   rasskaza-l   čto   ***vrode kak***
     and   then   tell[PFV]-PST-(SG.M) COMP as.if
     čert-ej   *živ-yx*   *vide-l.*
     devil-ACC.PL living-ACC.PL see[IPFV]-PST-(SG.M)
     'Then (he) told me that he had seen real devils.'
       [M. Kučerskaja: "Sovremennyj paterik: čtenie dla vpavšix v unynie". 2004]

middle position of *vrode*-group markers:

(51) I   rasskaza-l   čto   kotlet-y   El'cin   ***vrode***
     and tell[PFV]-PST-(SG.M) COMP cutlet-ACC.PL Eltsin-(NOM.SG) as.if
     e-l.
     eat[IPFV]-PST-(SG.M)
     'And he told (us) that Eltsin **reportedly** ate cutlets.'   [*Stolica*, 1997.05.27]

(52) Ann-a   Savišn-a   skaza-l-a   čto   v   grob-u
     PN[F]-NOM PN[F]-NOM   say[PFV]-PST-SG.F   COMP in   coffin-LOC.SG
     on   ***vrode kak***   *ulyba-l-sja.*
     he.NOM   as.if   smile[IPFV]-PST-(SG.M)-RM
     'Anna Savishna said that he **reportedly/seemingly** was smiling in his
     coffin.'   [V. Koneckij: "Včerašnie zaboty". 1979]

Contexts of the same sort are found with *budto (by)* and *kak budto (by)*, which
can also be combined with *čto*; compare:

(53) Šaryp   skaza-l   čto   on   ***budto by***
     PN[M]-(NOM) say[PFV]-PST-(SG.M) COMP he.NOM   as.though
     ne   spa-l   *vsj-u*   *noč.*
     NEG sleep[IPFV]-PST-(SG.M) all-ACC.SG.F   night[F]-(ACC.SG)
     'Šaryp said that **reportedly** he did not sleep the whole night.'
                                    [E. Permjak: Babuškiny kruževa. 1955–1965]

However, the contexts where the markers under analysis are combined with a complementizer do not help to determine whether or not *vrode*, *vrode by* and *vrode kak* have complementizer status. The problem is that the status of a unit can be different when it is used as the sole complementation marker and when it is combined with *čto*: it is quite possible that in the former case, the markers under analysis are complementizers, while in the latter case they are particles.

10.4.2 Assessment of syntactic properties

Syntactically, all markers mentioned in Section 10.4.1, except those from the "*vrode*-family", pass the two complementizer tests (examples below are constructed). Example (54, constructed) and example (55, from the corpus) show that they can modify nominalizations (though for *slovno* constructions of this sort sound a bit odd), while in examples (56)–(57), the clause headed by the respective marker is inserted into the main clause after a verb.

(54) *Ego   utverždeni-e,   **budto (by)**   on   syn   korolj-a...*
      his   claim[N]-NOM.SG   as.though   he.NOM   son[M]-(NOM.SG) king-GEN
      'His claim that (as though) he is the king's son ...'

(55) *Ložn-o   utverždeni-e   **budto**   po   arterij-am*
      wrong-F.SG.N   claim[N]-SG.NOM   as.though   through   artery-DAT.PL
      proxod-it   vozdux.
      pass[IPFV]-PRS.3SG   air-(NOM.SG)
      'The claim that air goes along our arteries is wrong! [*Nauka i žizn'*, 2007]

(56) *Utveržda-l   [**budto (by)**   on   genij]   tol'ko*
      claim[IPFV]-PST-(SG.M)   as.though   he.NOM   genius-(NOM.SG)   only
      Vasj-a.
      PN-NOM.SG
      'It was only Vasja who claimed that he was a genius.'

(57) *Sni-t'-sja   [**kak budto** ja   letaj-u]   mne*
      dream[IPFV]-INF-RM   as.if   1SG.NOM   fly[IPFV]-PRS.1SG   1SG.DAT
      mog-l-o   tol'ko v   detstv-e.
      can-PST-N only   in   childhood-LOC
      'Only in my childhood could I dream that I was flying.'

Only the marker *vrode* and its variants *vrode by* and *vrode kak* show neither of these properties (Letuchiy 2010). For instance, contrary to the *budto*-family markers, they cannot modify nominalizations:

(58) a.   *... *ego*   *slov-a,*   ***vrode kak***   *Petj-a*   *uexa-l.*
             his   word-NOM.PL   as.though   PN-SG.NOM   leave[PFV]-PST-(SG.M)
             intended: '... his words **that (as though)** Petja seems to have left.'

      b.   *... *ego*   *utverždeni-e,*   ***vrode (by/kak)***   *on*   *syn*
             his   claim-NOM.SG   as.though   he.NOM   son[M]-(SG.NOM)
             korolj-a...
             king-SG.GEN
             'His claim **that (as though)** he is the king's son...'

Importantly, the same nominalization (*utverždenie* 'claim') is compatible with *budto (by)*. Thus, it is not the nominalization as such, but it is the properties of *budto (by)* (→ complementizer) vs *vrode (by/kak)* (→ no complementizer) that are relevant.

     Similarly, a clause containing a *vrode*-marker appears somewhat marked when situated inside the matrix clause. Compare the following sentence with *budto* in (56)–(57), which is possible in this position:

(59)   *Govori-l-i*   ****vrode kak/budto***   *Petj-a*   *uezža-et*
      say[IPFV]-PST-PL   as.though/as.though   PN-SG.NOM   leave[IPFV]-PRS.3SG
      tol'ko   *dv-a*   *čelovek-a.*
      only   two-NOM   person-GEN.SG
      'Only two people were saying **that** Petja was going to leave.'

As a reviewer points out, sentences like this are not entirely unacceptable, but they are at least marked.

     Note that all evidential complementizers share one syntactic restriction: they cannot introduce clauses that precede the main clause, or at least they do it very rarely. Thus, for instance, (60a) can hardly be rephrased as (60b):

(60) a.   *Emu*   *ne*   *kaza-l-o-s',*   ***kak budto***   *on*
             he.DAT   NEG   seem[IPFV]-PST-N-RM   as.if   he.NOM
             zadyxa-et-sja.
             suffocate[IPFV]-PRS.3SG-RM
             'It did not seem to him that he suffocated.'

      b.   ??***Kak budto***   *on*   *zadyxa-et-sja*   *emu*   *ne*
             as.if   he.NOM   suffocate[IPFV]-PRS.3SG-RM   he.DAT   NEG
             kaza-l-o-s'.
             seem[IPFV]-PST-N-RM
             Intended: 'It did not seem to him that he suffocated.'

This fact cannot be explained by a general property ascribed to any subordinate clause, which is that they are supposed to be able to occur either after or before the main clause. For instance, Greenbaum (1969: 29), Van Oirsouw (1987) and

Testelec (2001) show that the initial position is generally possible for subordinate clauses; see also examples in RG (1980: §3043, on concessive clauses, §3058, on purpose clauses). It is not entirely clear if avoidance of the position before the main clause has to do with the evidential function. First, it should be noted that, according to Diessel and Schmidtke-Bode (2017), crosslinguistically, finite complement clauses tend to follow the matrix clause (which is not the case with infinitive constructions). Thus, we can expect that in a language, at least some finite complement clauses cannot change their position, though no strict rule can be proposed here and we cannot be sure that the oddity of (60b) results from the finiteness of the embedded clause. Second, in Russian, *čtoby* in complementizer use is odd or sometimes unacceptable in the initial position, while this is possible for *čtoby* when it is used as a conjunction introducing a purpose clause.

(61) a.   *Ja*   *xoč-u*   *čto.by*   *priexa-l*
      1SG.NOM   want[IPFV]-PRS.1SG COMP.IRR   come[PFV]-PST-(SG.M)
      moj   *brat.*
      my-NOM.SG.M   brother[M]-(NOM.SG)
      'I want my brother to come.'

    b.   ? *Čto.by* *priexa-l*   *moj*   *brat*
      COMP.IRR come[PFV]-PST-SG.M my-NOM.SG.M   brother[M]-(NOM.SG)
      ja   *xoč-u.*
      1SG.NOM   want[IPFV]-PRS.1SG
      lit. 'To come my brother I want.'

The heterosemy of evidential markers mirrors a problem for theoretical approaches to clausal argument constructions. Contrary to the complementizer *čtoby*, which is used in a broad range of irrealis contexts (e.g., with predicates of volition, necessity, as well as in the context of matrix negation), for evidential markers two analyses can be proposed:

(i)   they express evidentiality even in complementizer use;
(ii)   when used as particles or adverbial expressions, they express evidentiality, while in complementizer use, they contain a generalized irrealis component.

At first glance, option (ii) would be confirmed by the fact that, for instance, the verb *kazat'sja* 'seem' is compatible with *budto* (as well as with *čto*) in both uses: not only in the evidential one, but also in the mental-perceptual one. However, an evidential component is present in the meaning of *budto*-complementizers as well. This becomes evident from the fact that the class of matrix predicates (i.e. CTPs) is different for *budto* in comparison to other markers: only for *budto* it

extends to speech act verbs (see Section 10.4.1). This difference in the range of verbs corresponds very well to the fact that the same marker with *by* (*budto by*) is used also in the reportive function, when used as a particle.

10.5 Indirect-indifferent units

Some evidential markers do not distinguish, or oscillate, between inferential and reportive meaning. Mainly the markers *kažetsja, sudja po vsemu* and *poxože* belong to this group: although they have been listed as inferential markers, in some contexts they are borderline cases between inferential and reportive value. Common to all these markers is *a* medium degree of epistemic support. Moreover, all of them refer predominantly, if not exclusively, to judgments based on perceptually acquired information (circumstantial inferentials); they are not appropriate in the context of planning, where the context does not contain a more specific basis for the inference (see Sections 10.2.1–10.2.5). However, in general, these two properties – medium degree of epistemic support and perceptual basis of inference – jointly appear to be favorable for inferential units to encroach into the reportive domain.[15]

For instance, example (62) is equally appropriate if the speaker sees a wedding dress in Vova's apartment (inferential context) and if someone has told the speaker the news about Vova's wedding (reportive context).

(62)   ***Kažetsja/poxože/sudja po vsemu***,   *Vov-a*   *žen-it-sja*.
       it.seems/similarly/presumably   PN-SG.NOM   *marry[IPFV]*-PRS.3SG-RM
       'It **seems** that Vova (will) marry.'

The reportive use of these markers is always accompanied by an epistemic overtone. In the reportive reading of (62), the speaker implies that they do not fully believe the source of the information.

Other units representing circumstantial inferentials, but with a rather high degree of certainty, do not show any tendency toward an extended use in the reportive domain. For instance, *javno* is restricted to the inferential domain (see Section 10.2.1).[16]

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15 This necessary, or typical, condition is however by no means sufficient. There are other markers characterized by both properties which do not acquire reportive function.
16 Another candidate of circumstantial inferentials with high degree of certainty is *opredelenno* 'certainly' (cf. Jakovleva 1994: 219). However, following the brief discussion in Xrakovskij (2005), *opredelenno* is treated as equivalent to phrases like *(kak) ja vižu* '(as) I see/ am seeing'. This indicates that *opredelenno* is situated in the grey zone between direct and

Beside the perceptual basis shared by circumstantial inferentials and reportive units – and obviously catalysing the shift into the reportive domain – another factor seems to be paving the way for an extension into reportivity, namely: the actual speaker makes an inference on the basis of hearsay-information. This factor was already considered in Section 10.2.1, but cf. also Bulygina and Šmelev (1997: 299f.). See the following example (about an attempt upon the life of a vip-politician):

(63)　　*(...) (B. rabotal v komissii po rassledovaniju dejatel'nosti GKČP),*
　　　　vrode kak　　*pereda-l*　　　　　*v*　　*Prokuratur-u*
　　　　apparently　convey[PFV]-PST-(SG.M)　to　prosecutor's_office-ACC.SG
　　　　dokument-y　　*o*　　　　*nelegal'n-om*　　*vyvoz-e (...)*
　　　　document-ACC.PL　about　illegal-LOC.SG.M　export[M]-LOC.SG
　　　　zolot-a　　*za*　　*rubež (i stojal na puti mafii (...)).*
　　　　gold-GEN.SG　across　border-(ACC.SG)
　　　　'(B. worked in the commission for the investigation of the activities of the GKČP), (he) **apparently** conveyed documents about the illegal export of gold (across the border) into the prosecutor's office (and stood in the way of the mafia (...)).'　　　　　　　　　　　　　　　　[*Izvestija*, 1992.06.25]

This additional interpretation is also applicable to (62).

10.6　Additional issues

This section provides information on three different issues. First, we examine units or instantiations which cannot be considered to serve as evidentials in the proper sense, but are closely associated to some subdomain or other of evidentiality (Sections 10.6.1–3). Second, we deal with the possible emergence of reportive markers evolving from constructions with the basic speech act verb (Section 10.6.4). Third, we comment on distributional properties of evidential units which come in "pairs" with and without the irrealis morpheme *by* (Section 10.6.5).

10.6.1　Confirmation demand

Some units prominent in the evidential domain may be used to ask the address-ee's confirmation (or denial) on an assumption which the speaker is quite sure

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inferential evidentiality (see Sections 10.1–10.2.2), and its status as an evidential marker is doubtful, at any rate.

about. This assumption can derive from hearsay, i.e. information received from other people, or from circumstances which the speaker has observed; compare

(64) ***Kažetsja**, ty sobira-eš'-sja vo Francij-u...*
   it.seems 2SG.NOM collect[IPFV]-PRS.2SG-RM to France-ACC.SG
   '**It seems**, you are going to France, aren't you?'

This function surfaces when the speaker does know what they are asking about,[17] and it might also imply an illocutionary value of astonishment (that is, a kind of mirative function). We also find this discourse function with other units that are typically used with circumstantial evidence, such as *sudja po vsemu* 'by all accounts' (see Sections 10.2.1–10.2.2):[18]

(65) *Vy **sudja po vsemu** čelovek isključitel'n-oj*
   2(HON).NOM presumably person-(NOM.SG) extreme-GEN.SG.F
   dobrot-y?
   goodness[F]-GEN.SG
   '**Presumably**, you are a person of extreme kindness, aren't you?'
           [M. A. Bulgakov: "Master i Margarita", č. 2. 1929–1940]

However, not every unit from this subdomain acquires this discourse-pragmatic function. This is deducible only from an analysis on an item-by-item basis. Thus, this function is possible with *kažetsja* as well as with *vrode* (*vrode by*, *vrode kak*), *sudja po vsemu* and even *dolžno byt'*, but it is not characteristic for many other evidential units, such as *budto (by)* and *javno*.

10.6.2 "Xenomarkers"

This term is adapted from Russ. *ksenopokazateli*, a term coined by Arutjunova (1992a, b, 2000), who also provided overviews of the earlier literature.[19] It refers to three units: *mol*, *-de* and *deskat'*. Hinrichs (1989) dubbed them 'delocutives' mainly because of their etymology (for which see Section 10.7). *Mol* and *deskat'* are freely movable particles, while *-de* still behaves as an enclitic, although not as strictly as it used to in older stages of the languages. Properly speaking, in

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17 See the brief discussion in Bulygina and Šmelev (1992: 133, 1997: 300).

18 Therefore, Jakovleva's (1994: 227) statement that in this function *kažetsja* cannot be replaced by any other unit requires revision.

19 For earlier works cf. Kolodeznev (1969); Otin (1981); Ivančikova (1984–1985). Other surveys were supplied in Plungjan (2008); Sonnenhauser (2010) and Padučeva (2011).

modern Russian, these three markers are not used as hearsay markers, i.e. their function is not to mark some propositional content uttered previously by some other person(s). Instead, they mainly serve to draw attention to another person's imputed point of view, often with an ironic overtone, or with the wish to deliberately rephrase utterances. This imputed point of view represents the speaker's interpretation (Apresjan and Šmelev 2017); this becomes particularly clear when *mol*, *-de* or *deskat'* are used not to comment on speech acts, but on assumed thoughts, or on behavior or other observations that may semiotically substitute for speech (Arutjunova 2000; Šmelev 2016: 96f.). The speaker may even refer to their own utterances or thoughts. Xenomarkers combine with each other quite freely (for ample documentation and thorough discussion cf. Arutjunova 1992a–b and Plungjan 2008).

(66)[20] *V načale utra posle očerednogo dobrogo utra v naprjagax i v straxe idu, smotrju na nebo,*

    dumaj-u,   **mol,**   *da,*   *krut-oj,*   *nauči-l-sja*
    think[IPFV]-PRS.1SG   XENO   yes   stern-NOM.SG.M   learn[PFV]-PST-(SG.M)-RM
    soznatel'no,   *ponimae-š',*   *kajf*   *ot*   *ego*
    consciously   understand[IPFV]-PRS.2SG   fun-(ACC.SG)   from   his
    krasot-y   *lovi-t' (...).*
    beauty-GEN.SG   catch-INF
    'At the very morning, after another good morning in stress and in tension I am going, looking into the sky and think **{xeno}**, oh yeah, I'm a cool guy, I've learnt consciously, you see, to catch high fun from its beauty (...).'

(67) *Ja ego beru pod ruku, vedu k sebe v kabinet*

    i   *po*   *dorog-e*   *govorj-u,*   **mol,**   *ogromn-aja*
    and   along   road-DAT   say[IPFV]-PRS.1SG   XENO   huge-NOM.SG.F
    radost',   *čto*   *vy*   *priby-l-i,*
    joy[F]-(NOM.SG)   COMP   you(PL).NOM   arrive[PFV]-PST-PL
    zažda-l-i-s',   **mol.**
    be.tired.of.waiting[PFV]-PST-PL-RM   XENO
    'I take his hand, lead him to my office and tell him while we are walking that **{xeno}** we are extremely glad that he [lit. 'you'] arrived, because we are already tired of waiting for him **{xeno}**.'

                   [G. Gorin: "Vstreča s izvestnym pisatelem Burko". 1974–1984]

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20 Examples (66) and (68) are cited from Sonnenhauser (2010: 388), example (67) from Plungjan (2008: 290).

(68)   *Babuška posmotrela na menja s novym interesom:*
       deskat'*, otkuda   tak-aja   dubin-a?*
       XENO   from.where   such-NOM.SG.F   blockhead-NOM.SG.F
       'Grandma looked at me with renewed interest, **as if to say:** why are you
       such a blockhead?'   [E. Černikova: "Višnevyj luč"]

Thus, xenomarkers do not serve as markers of a reliable reproduction of propositional content, but are related to the mode of the production of texts (or their semiotic substitutes). This makes them a specific type of quotatives (see Section 10.6.3). If these markers refer to speech, the speech act must be specified as having occurred on a particular occasion; it cannot be "generic" or with anonymous original speakers (Letuchiy 2008b: 223f.). On this backdrop, a distinction between a proper reportive function and quotation remains secondary, which is why xenomarkers are indiscriminately encountered with direct and indirect speech as well as with other modes of reference to people's utterances or their thoughts (Sonnenhauser 2010). They are quite common, not so much in colloquial speech, but in polemics of the mass media. According to Plungjan (2008), the conventionalization of ironic load increases from *mol* via *deskat'* to *-de*. However, this characterization seems to depend quite considerably on the genre and the opposition between public (mostly written) speech and non-public colloquial speech. The contemporary stage has formed only recently (Plungjan and Urmančieva 2019), and it is rather unstable (see Section 10.7), among other things because new quotatives have entered the scene.

10.6.3 New quotatives

The appearance of so-called new quotatives corresponds to the general lines of their development as summarized on a larger crosslinguistic basis in Buchstaller and Van Alphen (2012). The source domains of such expressions in Russian are (i) type-referring demonstrative pronouns ('such one', see ex. 69) and (ii) '(of) this/such type' (see ex. 70).[21] The latter have also been called type nouns (cf. Kolyaseva 2018: 83; Kolyaseva and Davidse 2018: 192). So far, verbs of motion and quantifiers have not been attested.

(69)   *A   ja   **tak-aja:**   "Kak   tebja   zov-ut?"*
       CONJ   1SG.NOM   such.one-NOM.SG.F   how   2SG.ACC   call[IPFV]-PRS.3PL

---

21 Named, respectively, 'demonstrative deictic' and 'comparative' in Buchstaller and Van Alphen (2012: xiv). Plungjan (2008: 300) calls *tipa* a "marker of approximate nomination".

'And I am **such one/such a woman** (that always asks): "(Hi!) What's your name?"'   [cited from Levontina 2010; cf. also Savčuk 2011]

(70) *možno s servaka na vse vključennye kompy soobščenija posylat',*
      tipa   *ėt-o*   *lež-it*   *tam-to,*
      QUOT DEM-N   lie[IPFV]-PRS.3SG   there-PTC
      togda-to vyklučat svet i td ...
      'You can send messages from the server to all computers (that are) switched on, **like** this lies here, then the light will be switched off etc.'
                          [cited from Daiber 2010: 81; cf. also Wiemer 2010: 113]

In its genitive form, the type noun *tip* (*tipa*)[22] has been lexicalizing into a particle. The same tendency can in principle be observed with the prepositional phrase *po tipu* (< *po* 'according to' + *tip-u*.DAT). These particles can be employed as quotative markers. On the basis of a systematic corpus-based investigation of markers derived from the noun *tip*, Kolyaseva and Davidse (2018) remark that the particle use of such markers is very recent; the first clear instance in the RNC dates from 1973 (Kolyaseva and Davidse 2018: 214).

   The quotative use is often difficult to distinguish from a simple hedge function. However, it is reasonable to hypothesize that both functions derive from a comparison function. Compare the following examples (cited from Kolyaseva and Davidse 2018: 212f.), which also demonstrate that *tipa* and *po tipu* serve to prepare a naming, e.g. by evoking a stereotypical phrase (71) or a proverbial saying (72):

(71) *Rasskaž-i-te*   *podrobno,*   *v*   *xronologičesk-om*
      narrate[PFV]-IMP-PL   in.detail   in   chronological-M.LOC.SG
      porjadk-e,   *kak*   *Vy*   *dejstvova-l-i,*   **po**   **tip-u**:
      order[M]-LOC.SG   how   YOU(HON).NOM   act[IPFV]-PST-PL   by   type-DAT.SG
      „Obrati-l-sja   *v*   *poliklinik-u*   *tak-ogo-to*
      address[PFV]-PST-(M.SG)-RM   in   hospital-ACC.SG   such-N.GEN.SG-IND.PTC
      čisla...".
      date[N]-GEN.SG
      'Describe in detail, in chronological order, how you acted, **like**:
      "I came to the clinic on a certain date ... ".'
                          [RNC: "Forum o medicinskoj diagnostike". 2010]

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22 For this word, stress is always on the root. The spelling *tipo*, which occurs on the internet, can be judged as "hypercorrection, as unstressed *a* and *o* in standard Russian are pronounced the same". Alternatively, "*-o* is a typical adverbial suffix and such use might be perceived by speakers as in some ways adverbial" (Kolyaseva and Davidse 2018: 214).

(72)　*Rable*　　　　*ne*　　*bo-it-sja*　　　　　　　　　*logiki*
　　　　PN-(NOM)　　NEG　　be.afraid[IPFV]-PRS.3SG-RM　logic-GEN.SG
　　　　po　　tip-u　　　　　*„v ogorode buzina, a v Kieve djad'ka"*
　　　　by　　type-DAT.SG　　[QUOTATION]
　　　　'Rabelais is not afraid of a logic **like** "apples and oranges".'
　　　　　[RNC: M. M. Baxtin. "Formy vremeni i xronotopa v romane". 1937–1938]

Quotatives relate to the mode of speaking, they do not target the propositional content of speech. Therefore, quotatives are typically used to characterize, or comment on, people's behavior or to interpret their thoughts (as imputed by the speaker); see example (70) and the following one (cited from Kolyaseva and Davidse 2018: 216):

(73)　[žen, 14]　*Nu/ona* [nrzb] *kogda otveča-ju/*　　　*to*　*v*
　　　　　　　　　PTC she.NOM　　when answer[IPFV]-PRS.1SG　PTC　in
　　　　okn-o　　　　　*smotr-it*　　*tam /*　*to*　*lic-o*　　　　*tak-oe*
　　　　window-ACC.SG　　look[IPFV]　there　PTC　face[N]-ACC.SG　such-N.ACC.SG
　　　　dela-et/　　　　　***tipa***　*ja*　　　　*tup-aja.*
　　　　make[IPFV]-PRS.3SG　SORTA　1SG.NOM　stupid-F.NOM.SG
　　　　[fem, 14] 'Well / she [inaudible] when I answer/she looks through the window/ or makes such a face/**sorta** I'm stupid.'
　　　　[RNC: "Razgovor studentki i škol'nicy ob učebe. Iz kollekcii Uljanovskogo
　　　　　　　　　　　　　　　　　　　universiteta". 2009]

This is why Spronck (2016) discusses type noun particles as instances of fictive direct speech (as a means of interaction) in Russian, bringing quotatives derived from *tip* close to xenomarkers (Section 10.6.2) and to potential reportive markers like *vrode* or units of the "*budto*-family" (Section 10.3.2, Section 10.4), all of which etymogically descend from comparison markers.

　　　Furthermore, as Kolyaseva's (2018) investigation of an informal internet forum demonstrates, *tipa* can also (albeit obviously very occasionally) be encountered in embedded clauses, just after a standard complementizer. See the following example (cited from Kolyaseva 2018: 87):

(74)　*v otčete*　　　*OBSĖ*　*vs-e*　　　　　　*govor-it-sja*
　　　　in report-LOC.SG　OSCE　everything-NOM.SG.N　say[IPFV]-PRS.3SG-RM
　　　　krajne　　*rasplyvčato obyčno –*　*čto*　***tipa***　*est'*
　　　　extremely　vaguely　　usually　COMP　SORTA　be.PRS.3SG
　　　　žertv-y　　　*sredi*　　*mirn-yx,*　　　*za*　*kotor-ye*
　　　　victim-NOM.PL　among　　civilian-GEN.PL　for　which-ACC.PL

> otvetstvenn-a   ukrainsk-aja   storon-a (...).
> responsible-SG.F   Ukrainian-NOM.SG.F   side[F]-NOM.SG
> 'In the OSCE reports everything is usually said in a very vague manner
> that, **sorta**, there are victims among the civilians for which the Ukrainian
> side is responsible (...).'

Cf. Kolyaseva (2018) for a detailed analysis of quotative *tipa* in informal speech.

10.6.4   Forms of *govorit'* 'say[IPFV]'

In colloquial speech, some of the inflected forms of *govorit'* 'say, tell' (imperfective aspect) tend toward becoming conventionalized as quotative or reportive marker.[23] In particular, these are contracted forms of the 3SG.PRS.IND, *grit*, *gyt* (< *govorit* 'says'). In addition, in the literature on colloquial standard Russian 1SG.PRS.IND *grju* (< *govorju* 'I say') and 3PL.PRS.IND *grjat* (< *govorjat* 'they say') have sometimes been mentioned (Kopotev 2014: 724). Just like new quotatives, the forms *grit*, *gyt* are stylistically marked. Their occurrence is rare not only in literary language, but also in colloquial speech of educated speakers.[24] Certainly, this is why these units are only scarcely attested in linguistic corpora. Nonetheless, it is possible to summarize some relevant features of these markers.

First, they tend to occur repeatedly in coherent stretches of discourse; they can even densely mark each utterance segment in renarrated speech;[25] compare an example:

(75) *On*   **grit**   *a*   *ja*   **grit**   *u*   *menja*   **grit**
      he.NOM QUOT   PTC   1SG.NOM QUOT   at   1SG.GEN   QUOT
      obrazovanij-a   *net*   *nikak-ogo*   *govor-it.*
      education[N]-GEN   NEG.BE   no-GEN.SG.N   say[IPFV]-PRS.3SG
      'He says **{grit}**: "I – **{grit}** – do not have – **{grit}** – any education – he
      says"'.   [TV company "Kul'tura", 2009]

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23 Phraseologicalized units centering around *govorit'* have also entered the inventory of discourse markers functioning, among others, as signs of resumptions or for attention management in dialogue. For some overview cf. Plungian and Rakhilina (2018).

24 See the data presented in the collection of texts in Zemskaja and Kapanadze (1978) and the analysis in Bolden (2004).

25 A similar observation was made by Arutjunova (1992b, 2000: 438f.) for enclitic *-de* (on which see Section 10.6.2).

Second, a high degree of conventionalization of *grit*, *gyt* appears to become evident from the observation that these forms are compatible with speech act verbs in their full forms; in a sense, they can be used redundantly:

(76) *A   vot   sprašiva-et   Svet-a   grit   skaž-i-te*
      PTC   PTC   ask[IPFV]-PRS.3SG   PN-SG.NOM   QUOT   say[PFV]-IMP-PL

      Stanislav   a   Vy   vot   prjamo   s
      PN-(NOM.SG)   PTC you(HON).NOM   PTC   right   since

      detstv-a   pravdoljub?
      childhood-GEN   truth-seeker-(NOM.SG)

      'And now Sveta asks, {**grit**}, please say, Stanislav, are you looking for
      truth since your childhood?'   [Radiostancija "Majak", 20089

Third, though the data can be unreliable because of transcription mistakes, it seems that *grit* (originally deriving from the third person <u>singular</u>) can be used with reference to more than one speaker. To a certain degree, this is testimony of loss of the number distinction and shows that the form is becoming conventionalized as an uninflected unit:

(77) *<...> odnaždy   ego   sprosi-l-i   počemu   ty*
              once   he.ACC   ask[PFV]-PST-**PL**   why   2SG.NOM

      duma-eš'   grit   *čto   prostranstv-o   i   vremj-a*
      think[IPFV]-PRS.2SG   QUOT   COMP   space-NOM.SG   and   time-NOM.SG

      ėt-o   form-y   čuvstvenn-ogo   soznanij-a
      DEM-SG.NOM.N   form-NOM.PL   sensual-GEN.SG.N   conscience[N]-GEN.SG

      apriorn-ye.
      a.priori-NOM.PL

      'Once he was asked [lit. 'they asked him']: "Why do you think, {**grit**} that
      space and time are a priori forms of sensual conscience?"'

                                                        [Seminar po filosofii, 2006]

Fourth, *grit/gyt* does not obligatorily denote a close-to-verbatim citation: it can be the case that the speaker does not repeat the expressions of the original speech act. Nonetheless, *gyt* is more like a quotative rather than a reportive marker. For instance, it cannot be used if a widely known story is renarrated by many people and without anyone knowing its origins. This, by contrast, is possible for reportive markers like *jakoby* and *budto by* (see Sections 10.3.1–10.3.2):

(78) *Kogda-to   zdes'*   **budto by/jakoby/*gyt**   *by-l-a*
      sometime   here   reportedly/reportedly/QUOT   be-PST-SG.F

      cerkov'.
      church[F]-(NOM.SG)

      '**People say** once upon a time there was a church here.'

Fifth, up to now, no examples have been found in which *grit* would have been used to make explicit the interpretation of gestures and other forms of non-verbal behavior. This makes it differ from prototypical quotative markers (Section 10.6.3) and from 'xenomarkers' (Section 10.6.2), for which, according to Plungjan (2008) and Sonnenhauser (2010), these types of contexts are rather frequent.

10.6.5 On distributional properties of markers with enclitic *by*

In general, the Russian uninflected enclitic *by* (often referred to as 'particle') has the function of a subjunctive marker (together with the *l*-form, originally an active anterior participle, of the lexical verb).[26] It also occurs in numerous lexical items, often to the extent that one is tempted to ask whether the respective units with and without *by* are still to be considered variants of the same lexeme or whether there are different lexemes (see fn. 27). Since this question bears relevance to the marking of epistemic and evidential functions, the following comments seem appropriate.

Many Russian modal or comparative markers, such as *vrode*, *budto*, *kak budto*, *slovno*, *kak* and, very rarely, *točno*, come in two variants: with and without the enclitic *by*. *Slovno (by)* and *točno (by)* are very unusual when used as evidential markers. By contrast, the "pairs" *budto* – *budto by* and *kak budto* – *kak budto by* can function as evidential (or epistemic) particles, they can also be considered emergent complementizers (see Section 10.4). The variants with and without *by* differ at least in their token frequencies. The corpus data shows that the variants with *by* clearly tend to behave like particles, not like complementizers or conjunctions. Some functions are unavailable for variants without *by*; for instance, *budto by* carries a reportive function and is used mainly as a particle (see Section 10.3.2), while *budto* is used as a complementizer, but

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26 This is actually the only way of forming the subjunctive, which in Russian does not distinguish between *potentialis* and *counterfactual*. From the diachronic point of view, *by* is the remnant of the 3SG-aorist form (which, as a tense, became extinct very long ago) of *byti* 'be'. Furthermore, past tense forms of *byti* were in use in the formation of the (likewise extinct) pluperfect. In parallel, *by* has also agglutinized with sentence connectives, first of all with *čto* 'that', yielding *čtoby* used in the first place as complementizer or conjunction introducing all sorts of clauses which lack factuality or for which propositional content is suspended (as, e.g., in embedded directives). The discussion of this subsection shows that, evidently, *by* has not ceased to tend toward agglutinization with many other connectives and "lending" to them its non-factual semantics (cf. Wiemer 2015 for details).

almost unacceptable as a particle (at least in reportive use). In (79), *budto by* would be possible, while *budto* is unacceptable.

(79) *Odnaždy on   **budto *(by)** neožidanno uexa-l*
      once   he.NOM   reportedly   unexpectedly leave[PFV]-PST-(SG.M)
      iz   Moskv-y.
      from   Moscow-GEN
      'Once, **as people say,** he had leaved Moscow unexpectedly.'

Example (80), found in Google, appears marked, and instead *budto by* would be more appropriate here:

(80) *Vdrug   odnaždy   ona   **budto** …*
      suddenly   once   she.NOM   reportedly
      po.čuvstvova-l-a   v   sebe   golos   Tsoj-a.
      PFX.feel[PFV]-PST-SG.F   in   self.LOC voice-(SG.ACC) PN-GEN
      'Once **reportedly** she suddenly felt Tsoy's voice inside…'

                                                                [www.newlookmedia.ru/?p=1592]

It is reasonable to assume that this difference results from the semantics of *by*. This enclitic is associated with irrealis meanings (or suspended assertiveness), i.e. it modifies the relation of the situation described in the utterance to the real word. It seems worth investigating this purported connection, and to make the intuition behind it more precise, via research with sufficient control over corpus data.

10.7 Remarks on diachrony

As in many languages, units based on roots with the meanings 'see' (*vid-n-o*, *vidim-o* < *vid-* 'see') and 'hear' (*slyš-n-o* < *slyš-/slyx-* 'hear'), but also 'be(come) obvious, perceivable' (*jav-n-o* < *jav-* and the paradigmatically isolated *kažetsja* 'seem':IPFV:PRS.3SG.IND) are quite well represented among the sources for Russion evidential markers. Admittedly, some of them have almost been ousted (*slyxat'*, *vidat'*). The MUST-auxiliary *dolžen*, which forms part of the epistemic particle *dolžno byt'* (< *dolžn-o*.N 'must' + INF of BE), is morphologically an adjective. This adjective, in turn, derives from the Old East Slavic noun *дьlgъ* (modern Russian *dolg*) in the meaning 'debt' or 'religious obligation' (Hansen 2001: 371). Its inferential function in modern Russian is rather vague inasmuch as this unit covers a broad range of knowledge bases, among them non-perceptual ones, so that its epistemic meaning is hard to background (see Section 10.2.1).

    Remarkably, units based on 'say, tell' do occur in earlier stages of East Slavic (in predecessors of modern Russian), but in contemporary Russian they are

peripheral inasmuch as they are either obsolete in evidential function (*slov-n-o*, cognate with contemporary *slov-o* '*word*'), or they have developed into, or have been preserved as, quotatives or interpretative units (*mol* etc., see below). Other, more recent, or emergent, units are restricted to spoken language with an unclear grammatical and lexicographic status (e.g., *gyt, grit* < *govorit* 'says'). Valuable surveys over historical stages of some reportive and quotative markers in Russian (including units ending up in a blind alley) were provided by Lazar (2011: 129–135), Kopotev (2014: 715–725) and, most recently and for the most recent stages (since the beginning of the 19th century) Plungjan and Urmančieva (2019).

From a bird's eye view on the inventory of Russian evidential units, it is noticeable that two morphemes particularly frequently occur as components of such lexical units: *by* and *kak*. The former is an enclitic otherwise used to indicate the subjunctive (see Section 10.6.5), the latter the universal comparison marker of Russian. Both, in the process of lexicalization of comparison and evidential markers, lost their morpheme status, since the resulting units cannot anymore be segmented into those larger units in whose formation they participate. Two units are, in a sense, composed of both: *kak budto by*, *jakoby*, with *jako* being now obsolete and of rather non-East Slavic origin. The provenance of *jakoby* in Russian remains disputable: either, one can argue that it was borrowed from Polish (probably in the second half of the 17th century), or that it has become entrenched via East Slavic recensions of Church Slavonic, maybe as a sort of replic of the *iako recitativum* (Molotkov 1962: 188–190), which had been used in Church Slavonic, though rather as a quotative (Daiber 2009; Perelmutter 2009); cf. Lazar (2011: 130) for more details.

In general, it seems, the semantics of comparison has been playing a salient role in the evolution of lexical evidentiality markers in Russian, as well as in other Slavic languages. What is more, for some the etymology has remained transparent. Thus, *poxože* is just the neuter (or adverb) form of an adjective stem *poxož-* 'similar'; *vrode* is composed of the proclitic preposition *v* 'in' and the locative form (governed by that preposition) of the noun *rod* 'kin, clan'. *Budto* derives from the imperative singular of the BE-verb (*bud'*) and some general demonstrative (*to*). The units of the "*budto*-family" were all originally used as markers of irreal condition and comparison (both on NP and clause level; cf. Letuchiy 2008a, b), as was *jakoby*. Most intriguing is the fact that when *jakoby* encroached into the reportive domain (by occurring after suitable verbs of speech) and began losing its former inferential and comparative functions, its use as a complementizer also began to decline (Neumann 2013: 83). See example (81) from the late 17th century (cited after Neumann 2013: 13, originally in

Širokova 1966: 144) for its use after a cognitive verb, and example (82) from Gor'kij, dating from the 1920s (quoted after Rakhilina 1996: 302, fn. 4):

(81) *ne   mni (...),*   ***jako by***   *nam*   *otveršč-i-sja*
      NEG   think[IPFV]-(IMP.SG)   how.IRR   1PL.DAT   open[PFV]-AOR.3SG-RM
      istinn-aja   ver-a   Xristov-a.
      true-NOM.SG.F   faith[F]-NOM.SG   of.Christ-NOM.SG.F
      'don't think **as though** Christ's true faith has revealed itself before us.'

(82) *Ešče   <u>sni-l-o-s</u>'*   *mne,*   ***jakoby*** *id-u*   *ja*
      even   dream[IPFV]-PST-N-RM   1SG.DAT   as.if   go[IPFV]-PRS.1SG   1SG.NOM
      po vekovomu lesu, rastuščemu na bolote.
      'I even <u>dreamt</u> **as though** I was going through a centuries-old forest which grows on swamp.'

In (82) *jakoby* introduces a clausal argument of a verb denoting deceptive perception (compare Noonan's 2007 'dream predicates'). This use, both as a complementizer and in other functions than reportive, has become obsolete, contrary to its Polish cognate (cf. Wiemer and Socka, this volume).[27]

The etymology of the three xenomarkers *mol*, *-de*, *deskat'* (see Section 10.6.2) does not raise doubts, their functional development is not as clear. That is, the original source of all three units are basic verbs of speech: *mol* derives from the verb *molviti* 'say', which is archaic now but was in active use still in the 19th century. It is not that clear which grammatical form of this verb gave the start for *mol*; it might have been the 3SG.PRS.IND-form, but the (now obsolete) 3SG.AOR-form cannot be ruled out, either. *Mol* is firmly attested from the end of the 17th century, and it happened to be combined with the enclitic *-de* as its prosodic head (Kopotev 2014: 721, 730). However, Plungjan and Urmančieva (2019: 417) report that *mol* surfaces in the RNC only in documents from the beginning of the 19th century. This might be taken as indicative of a ramified history, both in terms of frequency and functional range (see below).

The enclitic *-de*, in turn, derives from the early East Slavic verb †*dějati* 'say' (Arutjunova 1992a; Zaliznjak 2008: 43f.). Again, this verb became obsolete a long time ago, and there have been different assumptions concerning the grammatical form which could be the immediate predecessor of *-de*.[28] Most

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27 For a discussion of the Slavic background of these "comparison morphemes" cf. Wiemer (2008: 362–369, 2018a: 313–328).

28 In historical documents, the following variants of this item have been attested: *děi*, *dě*, *dei*, *de*, *dee* (Lazar 2011: 116). Lazar (2011) convincingly argues that the evolution of East Slavic (> Russian) *-de* as a discourse marker (at least until the 17th century) and evidential enclitic can-

plausible is its rise from *děje.*3SG.PRS.IND or *děješi.*2SG.PRS.IND OR FROM A contraction of both (Otin 1981: 163–167). However, since we do not find remnants of such ancient verb forms in East Slavic, it is plausible to assume that loss of phonological substance and semantic bleaching took place prior to the appearance of -*de* in 15th c. East Slavic. Lazar (2011: 118) surmises that this enclitic entered East Slavic as a stylistic device in written sources under heavy Church Slavonic influence. In the Russian variety of Church Slavonic the unreduced pronunciation of *de* has been preserved until today (M. Kopotev, p.c.). This fact rather speaks against its enclitic status and in favor of it being directly borrowed from Church Slavonic (see however fn. 29).

As a marker of quoted speech, -*de* predominated until the 17th century, when it was used primarily in texts with juridical significance in the Duchy of Moscow (Lazar 2011: 116). It is difficult to distinguish between quotative and reportive functions, first of all because the borderline between coordination and subordination for that period is particularly diffuse, but also because the origo of person-deictic expressions in the scope of -*de* often oscillated (their anchorage was alternatively with the reporting speaker or with the speaker of the reported speech event), even between adjacent clauses. Concomitantly, -*de* lost its predominant use as a means of reference to documents and court trials, and it was not restricted to the vernacular (Xrapko-Magala 2015). It began to be employed in many genres, often in parodistic contexts and in order to point to another character's manner of speech; this corresponds to its contemporary use. Other particles as indicators of speech uttered by other people – like *skat* (< *skazat'* 'say'), *reče* (= obsolete 3SG.AOR of *rešti* 'say'), and *bait* (= 3SG.PRS.IND of dialectal *bait'* 'say, tell'), which has a rather folkloristic flavor – were attested only occasionally and never gained broader usage (Lazar 2011: 129f.; Kopotev 2014: 717f.).[29]

Deskat' is the result of a contraction of -*de* and *skat'* < *skazati* 'say' (Ickovič 1958: 7; Ivančikova 1984–1985; Kopotev 2014: 723). Thus, presumably, *deskat'* arose on the basis of -*de*. We do not know when this happened, in the RNC *deskat'* is attested only from the late 18th century onward, while -*de* (and its variants *di*, *dii*) can be found since the 15th c. (Plungjan and Urmančieva 2019:

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not have been directly connected to the cognate, but non-clitic unit -*de* in Old Church Slavonic. The latter rather functioned as a discourse particle in polar questions (compare Engl. *really P?*, with the speaker assuming the opposite to P).

29 Kopotev (2014: 722) draws attention to the fact that, similarly, the two-syllable infinitive *skazat'* is phonetically "eroding" in contemporary speech (> *skat'*, *skat*). Thus, its liability to become a potential reportive particle looks like another "round" of a diachronic cycle.

417, 431). We may reasonably assume that *deskat'* lexicalized as a reportive marker out of frequent parenthetical use, as in modern Russian *tak skazat'* (> *tak skat'*) 'so to say', which however usually functions like a hedge ('as it were'). Parentheticals with infinitival heads have been attested throughout the history of Russian, as have independent infinitives.[30]

According to Plungjan and Urmančieva (2019), the modern "career" of *deskat'* and *mol* starts somewhere at the turn of the 18th to the 19th century. *Mol* definitely was in use earlier (see above), but before the 19th century, it might have become too infrequent to surface in the documents which have survived to the present day. During the last 200 years *deskat'* and *mol* (as well as *-de*) have undergone several changes, not all of them unidirectional. First, *mol* has constantly been gaining in frequency in comparison to *deskat'* and *-de*. Second, during the 19th century, *deskat'* was in use mainly as a quotative marker. Typical contexts were to be found in direct speech, but not including any obvious evaluation. Thus, we find it in speech acts involving an imperative (see 83), or it occurred in clauses marked as embedded by a complementizer (see 84). In this respect, *deskat'* followed the use of *-de* at that time.

(83) *Vot i stala Matrena menja prosit': vykupi ee, **deskat'**, ot gospoži.*
      'Look, Matrena started asking me: redeem her, {**quot**}, from the lady.'
                                    [I.S. Turgenev: "Petr Petrovič Karataev". 1847]

(84) *Lakej vzošel i doložil emu, <u>čto</u>, **deskat'**, barynja izvolila uexat' obedat'*
      v gosti, a sestra izvolila už otkušat'…
      'The footman went up and reported to him <u>that</u>, {**quot**}, the lady deigned to leave for a lunch with friends, and the sister already deigned to have her meal.'
      [(M.Ju. Lermontov: "Knjaginja Ligovskaja". 1836-1837; cit. from Plungjan and Urmančieva 2019: 419f.]

Both *deskat'* and *-de* were used as argumentative markers, but without any inherent negative, or ironic, evaluation. However, *deskat'* also developed a function which was untypical for *-de*, namely the verbalization of imagined speech or thoughts, or of non-verbal behavior (gestures, mimics, etc.), i.e. it acquired interpretive use (see 85):

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30 Kopotev (2014: 731) points out that the infinitival provenance of *deskat'* presents us with a case that might be unique from the typological point of view. This holds as far as reportive markers are considered. However, the infinitival provenance of *deskat'* might also be indicative of its quotative origin and contemporary function, which is close to hedges (compare Engl. *so to say*).

(85)   *Pogodi nemnogo, s šumom vletaet iz vnutrennix dverej (...) činovnik osobyx*
   *poručenij, bez šljapy: „my, **deskat'**, svoi ljudi".*
   'Wait a little bit, a special forces officer flies in from the inner door with
   noise, without a hat [as if to declare]: „we, {**quot**}, are our people.'
     [A.I. Gercen: "Zapiski odnogo molodogo čeloveka". 1840; cit. from
     Plungjan and Urmančieva 2019: 419f.]

Evidently, *mol* basically "copied" its functions from *deskat'*, but it was particularly frequent if the speaker referred to themselves (auto-reference).

Only by the early 20th century, all three xenomarkers started becoming more frequent in evaluative interpretive use. Finally, they arrived at their contemporary stage which allows for differentiation, at least in public discourse (see Section 10.6.2). For a systematic corpus-based account compare Plungjan and Urmančieva (2019), who also find that *deskat'* and *mol* have lost their evaluative interpretive function (while *-de* has become altogether obsolete) in the private spoken language. After all, this looks like a return to their more orginal function, which they already had during the first half of the 19th century. The authors argue that this loss of evaluative function (or a would-be return to an earlier function) has been conditioned by the more recent quotative *tipa* (see Section 10.6.2), which is said to have a stronger liability to evaluative usage and might, thus, have pushed *deskat'* and *mol* from this function.

Finally, as concerns *kažetsja*, it is remarkable that its meaning range somewhat resembles the different functions from the quotative-reportive domain ascribed to *-de* (or its variants) in 15th–17th century Russian and in Old Church Slavonic. Namely, as a question particle with kind of negative illocutionary polarity: *dei li P?* 'does s/he really say P/speak about P?' (Lazar 2011: 118f.). These two functions need not have been related to each other directly in diachronic succession. By a similar token, it remains to be investigated whether the evidential vs discourse marker functions of *kažetsja* reflect different stages in the <u>same</u> line of diachronic development (with the chronology to be established), or whether they have arisen from an identical source, but belong to different "branches" after some bifurcation had occurred in their development.

Abbreviations in glosses (not included in LGR)

COMP.IRR	complementizer marking some "irrealis" value
DEM	demonstrative pronoun
HON	honorific
IND.PTC	indefinite particle (with pronouns)
PFX	prefix
PN	proper name
PPA	active anteriority participle
PPP	passive anteriority participle
RM	reflexive/middle marker
SF	short (nominal) form of the adjective
XENO	xenomarker

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Björn Wiemer and Anna Socka

11 Evidential marking in Polish

11.1 Introduction

Polish does not feature any kind of obligatory, or highly predictable, marking of evidential functions, although some modal auxiliaries are used with evidential (inferential or reportive) extensions. In these cases inferential and reportive uses show a tendency toward complementary distribution inasmuch as MUST-auxiliaries which acquire inferential readings quite regularly (*musieć* 'must', *powinien* 'should, ought to') gain a reportive reading at best occasionally (Section 11.2.2), while the regular reportive extension of *mieć* 'have to' does not acquire inferential readings (Section 11.3.2). Like most (probably all) European languages, Polish makes use of epistemic sentence adverbs (or particles), some of which readily acquire inferential readings or, if they are saliently used with inferential functions, they usually retain epistemic overtones (see mainly Section 11.2). This does not apply to a limited number of sentence adverbs with a prominent and non-cancellable reportive meaning; their epistemic overtones can always be cancelled (although under slightly different conditions); see Section 11.3.2.

In addition to these word classes, in Polish predicatives with inferential meanings play a more prominent role than in other European languages: They seem to be more firmly established in the evidential domain than they are in Russian, both concerning the number of units and the range of syntactic realization patterns. Predicatives are considered here despite the fact that they violate the second of Anderson's (1986) principles, which we have otherwise abided by in this volume, namely: predicatives themselves (by definition) function as the main predicate of their clauses. As far as predicatives are concerned, we relinquish this principle ('Evidentials are not themselves the main predication of the clause…') for two reasons. First, predicatives are a very salient word class in Polish (and some other Slavic languages) and some of its representatives have functions associated with evidentiality. Second, all "evidential" predicatives are heterosemic, i.e. the range of their syntactic behavior is not restricted to predicate function, but they always behave like particles or "ordinary" verbs as well. Since they would rather not show up in the "evidential profiles" of the remaining languages included in this volume, it seems appropriate to discuss their behavior on the example of Polish (and Russian; cf. Wiemer and Letuchiy, this volume).

Apart from the general objection connected to Anderson's second criterion, practically all Polish predicatives which are somehow related to evidentiality raise the problem of how to delineate direct and inferential evidentiality from each other. Their usage in the domain of direct evidentiality illustrates the problem in how far modifications of states of affairs can be understood as instances of evidentiality marking. Hence, they will be allocated somewhat more extensive consideration (see Section 11.2.1.1), before we will deal with crosslinguistically more common means of inferential marking in the remainder of Section 11.2. We will then turn to reportive markers in Section 11.3, before we comment on marking devices with vague usage types in the domain of indirect evidentiality and their more typical extensions (Section 11.4). We then dedicate a section to phenomena that are difficult to classify within the usual categories (Section 11.5.1), that show emergent reportive marking (Section 11.5.2) or that behave like established reportive complementizers (Section 11.5.3), which are heterosemic with one of the particles treated in Section 11.3.1. Finally, we will offer findings on the diachronic development of the markers discussed in this chapter (Section 11.6). For a detailed, largely corpus-based account of evidentiality marking in Polish (in comparison to German) cf. Socka (forthcoming).

If not indicated otherwise, examples are from the Polish National Corpus (NKJP, see References), otherwise they are taken from the discussed literature of the subject (indicated). Examples without source indication are constructed.

11.2 Inferential markers

Quite many epistemic adverbs (or particles)[1] occasionally show up in contexts which, beside their epistemic meaning, allow them to be interpreted as indicators of inferential processes. Usually, these are pragmatically unstable readings for which the cognitive basis of the inference can be determined only via the context. There are only few representatives of these word classes with a sufficiently conventionalized inferential function, i.e. which narrow down the basis on which the speaker forms their inference with sufficient consistency. Here, the basic units are *widocznie* and *widać*; *widać* can also be used as a predicative (see Section 11.2.1). In comparison to Russian, Polish allows for a more fine-grained differentiation of modal meanings in the epistemic and non-epistemic domain by auxiliaries, and this seems to be transmitted into evidentiality by

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1 For the difference see Boye and Harder (2009: 20f.), Wiemer and Vrdoljak (2011), Wiemer and Socka (2017a: 37).

way of functional extensions; for a deontic > reportive extension see Section 11.3. As concerns inferential meanings, extensions can arguably be observed with two modal auxiliaries, *musieć* 'must' and *powinien* 'should'; the first inflects for all inflectional categories of the Polish verb, whereas the latter behaves syntactically like a predicative adjective and, thus, distinguishes gender and number (Section 11.2.2). Furthermore, one should consider the paradigmatically isolated forms of the PRS.3SG.IND of two SEEM-verbs, *zdaje się* and *wydaje się* (Section 11.2.3).

11.2.1 Adverbs, particles and predicatives

Polish inferential particles include *widać*, *widocznie*, *najwidoczniej*, *najwyraźniej* and probably also *wyraźnie*. In addition to the particle *widocznie* (ex. 1) there is a homonymous adverb meaning 'visibly'; however, it seems to be less frequent (ex. 2):

(1)   – *Przebiłem nogę szkłem. – Hm... Mruknięcie wyrażało troskę,*
     widocznie *ran-a*   *przedstawia-ł-a*   *się niedobrze.*
     obviously wound[F]-NOM.SG   **present[IPFV]-PST-SG.F RM not_well**
     "I've punctured my leg with glass." "Hm..." The mutter expressed worry.
     Apparently the wound did not look well.'
                                         [I. Jurgielewiczowa, "Ten obcy", 1990 [1961]]

(2)   *Reynevan pomarkotniał.*
     Tak   **widocznie***, że*
     so   obviously   COMP
     aż Szarlej uznał za celowe dodać mu otuchy przyjaznym walnięciem w plecy.
     'Reynevan was so **visibly** dejected that Szarlej decided to cheer him up
     with a friendly slap on the back.'   [A. Sapkowski, "Narrenturm", 2002]

Morphologically, *najwidoczniej* is the superlative of *widocznie*, but as propositional markers both units are practically synonymous (SGPP 2014: 53, 58). Both are also closely related to the particle *widać* (Grochowski 2008a: 135, 2008b: 67). An analogous relation seems to hold between *najwyraźniej* and *wyraźnie* '1.

noticeably; 2. evidently';[2] compare *wyraźnie* as a manner adverb in (3) and as an inferential particle in (4) with *najwyraźniej* in (5):

(3)   *Ponadto dziś w redakcji święto z gratulacyjnymi telefonami. Na Dolnym*
    *Śląsku **wyraźnie***   *skoczy-ł-a*   *w górę*
    noticeably   jump[PFV]-PST-SG.F   upwards
    sprzedaż   *"Trybuny Ludu".*
    sale[F]-(NOM.SG)   PN
    'Besides, today in the editorial office a holiday with congratulatory calls.
    In Lower Silesia sales of *Trybuna Ludu* went up **noticeably**.'
                        [Z. Smektała, "Chcica czyli Billie Holiday to kurwa: poemat
                                         romantyczny", 2006]

(4)   *Wstawił się u naczelnego Polskiego Radia, by Rej pod pozorem opiewania*
    ciężkiego losu Murzynów mógł puszczać bluesy na antenie.
    Jednak   ***wyraźnie*** *unika-ł*   *dawn-ego*   *kumpl-a.*
    however   noticeably   avoid[IPFV]-PST-(SG.M)   old-ACC.SG.M   mate[M]-ACC.SG
    'He interceded on his behalf with the chief of the Polish Radio so that Rej
    could play blues on the air under the pretext of talking about a terrible
    fate of black men, but he **evidently** avoided his old mate.'
                        [Z. Smektała, "Chcica czyli Billie Holiday to kurwa: poemat
                                         romantyczny", 2006]

(5)   *Sofi-a*   *da-ł-a*   *się* ***najwyraźniej*** *udobrucha-ć,*
    PN[F]-NOM.SG   give[PFV]-PST-SG.F   RM   obviously   mollify[PFV]-INF
    bo milczała.
    'Sofia was **obviously** mollified, because she was silent.'
                                               [cited from SGPP 2014: 55]

We start our more detailed survey with *widać*, since it is the most complex of all inferential units inasmuch as it is not only heterosemic, but it is attested in a multitude of argument structure patterns and their realizations. These patterns should be approached on the backdrop of the larger class of perception-related predicatives (Section 11.2.1.1). After this discussion we turn to the remaining inferential units (Section 11.2.1.2).

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2 Danielewiczowa (2012: 87) explains the superlative form as an emphatic amplification which is not derived from the manner adverb, but already operates on the metacommunicative function of *wyraźnie*.

11.2.1.1 *widać*: heterosemy and relation to other perception-based predicatives

From the etymological point of view, *widać* is the infinitive of a verb meaning 'see'; no other forms of this verb have survived into modern Polish (see Section 11.6.3). *Widać* functions as perception-based inferential marker (ex. 8–11), but it can also be encountered in contexts of direct perception (ex. 6–7). This functional split partially correlates with its syntactic distribution, which makes *widać* a heterosemic unit. *Widać* is used either as a predicative or as a particle. By 'predicative' we mean a unit which forms the nucleus of a clause, but is not inflected either for agreement or for TAM-categories[3] and whose argument structure surfaces either with NPs/PPs or with finite clauses. In the case of *widać* no PPs are attested. With a NP it typically marks direct evidence (simultaneous perception), the NP occurs in the accusative and can be treated as an ordinary object (ex. 6).[4] A finite clause is introduced by a complementizer, the neutral choice being *że* 'that' (ex. 7a). With this complementizer, the utterance is potentially ambiguous, as it can relate either to simultaneous experience or to an inference (e.g., if the speaker of (7a) is not able to visually observe the respective situation, but makes a conclusion on the basis of some visual or auditory stimuli). If instead of *że* the complementizer *jak* 'how' is used, no such ambiguity arises, since *jak* can relate only to directly observable situations (ex. 7b). This difference between *że* and *jak* is tantamount to saying that *jak* marks clausal arguments as states of affairs (SoAs), whereas *że* does not show a clear association to clausal arguments coding them either as SoA or as proposition:

(6) *Na*   *wzgórz-u*   **widać**   *wież-ę.*
     on   hill-LOC   see.PRED   tower-ACC
     'On the hill **one can see** a tower.'

(7a) **Widać**, *że*   *dziec-i*   *tańcz-ą*
      see.PRED   COMP(THAT)   child-NOM.PL   dance[PFV]-PRS.3PL
      na   *podwórk-u.*
      on   backyard-LOC
      (Ich cienie odbijają się na ścianach i słyszę wesoły wrzask.)

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3 These categories are indicated by a copula which accompanies a predicative in all contexts beyond the present indicative (see examples below). This is why in grammars predicatives are often listed under units with 'analytical inflection'.

4 In correspondence to general rules of Polish syntax, the accusative changes to the genitive if the predicate is negated; for instance, *Na wzgórzu nie widać wież-y.*GEN 'No tower can be seen on the hill [lit. cannot see tower-GEN]'.

'**One can see** that children are dancing in the backyard. (Their shadows are being reflected on the walls and I hear their yells.)'

(7b) ***Widać,*** *jak* *dziec-i* *tańcz-ą* *na*
see.PRED COMP(HOW) child-NOM.PL dance[PFV]-PRS.3PL on
podwórk-u.
backyard-LOC
'**One can see** children dancing in the backyard.'

As a particle, *widać* has only an inferential function which needs a perceptual base of the judgment; see examples (8a–c), which show *widać* in variable linear position:

(8) a. ***Widać*** *t-en* *list* *cię*
see.PTC DEM-NOM.SG.M letter[M]-(NOM.SG) 2SG.ACC
ucieszy-ł.
cheer.up[PFV]-PST-(SG.M)
'**Evidently**, this letter has cheered you up.'

   b. *T-en* *list* ***widać*** *cię* *ucieszy-ł.*
DEM-NOM.SG.M letter[M]-(NOM.SG) see.PTC 2SG.ACC cheer.up[PFV]-PST-(SG.M)
'This letter has **evidently** cheered you up.'

   c. *T-en* *list* *cię* ***widać*** *ucieszy-ł.*
DEM-NOM.SG.M letter[M]-(NOM.SG) 2SG.ACC see.PTC cheer.up[PFV]-PST-(SG.M)
'This letter has **evidently** cheered you up.'

In inferential use, the source of judgment can be made explicit in the same sentence (ex. 9a), but the judging subject (the actual speaker) cannot be made explicit in any of the possible variants (ex. 9b–d):

(9) a. <u>*Po*</u> <u>*two-im piśmi-e*</u> ***widać,*** *że* *się* *ba-ł-eś.* predicative
from (your letter)-LOC see.PRED COMP RM fear[IPFV]-PST-2SG.M
'From your writing **one can see** that you were scared.'

   b. ***Widać*** *(*mi/*dla mnie),* *że* *się* *ba-ł-eś.* predicative
see.PRED 1SG.DAT/for 1SG.GEN COMP RM fear[IPFV]-PST-2SG.M
'**I can see** that you were scared.'

   c. *Ty* ***widać*** *(*mi/*dla mnie)* *się* *ba-ł-eś.* particle
2SG.NOM see.PTC 1SG.DAT/for 1SG.GEN RM fear[IPFV]-PST-2SG.M
'**I can see** that you were scared.'

   d. *(*Nam/*Dla nas)* *na wzgórz-u* ***widać*** *wież-ę.* predicative
1PL.DAT/for 1PL.GEN on hill-LOC see.PRED tower-ACC
'**We can see** a tower on the hill.'

Widać has not acquired a reportive function, it can however be encountered if an inference is made on the basis of somebody's utterance(s); compare:

(10)   <u>*Z*   *t-ych*   *słów*   *Herodot-a*   **widać***,   *że*</u>
       from   DEM-GEN.PL   word[N]-(GEN.PL)   PN[M]-GEN.SG   see.PRED   COMP
       sami Persowie oceniali trafnie wpływ dodatni właściwości swego ubogiego
       kraju, z jego ostrym a zmiennym klimatem, na ich charakter.
       <u>'In these words of Herodotus</u> **one can see** that the Persians themselves
       accurately assessed the positive influence of the properties of their poor
       country with its severe and changeable climate, on their character.'
                    [A. Sarwa, "Rzeczy ostateczne człowieka i świata: eschatologia
                                             Zaratusztrianizmu", 2005]

(11)   <u>*W* *jego* *wypowiedz-i*</u>   **widać***   *pokor-ę*   *twórc-y,*
       in   his   utterance[F]-LOC.SG   see.PRED   humility[F]-ACC   creator[M]-GEN.SG
       który zdaje sobie sprawę ze swojej niedoskonałości.
       <u>'In his utterance</u> **one can see** the humility of the creator who is aware of
       his imperfection.'
                    [http://www.klubliterackibrzeg.pl/2016/05/henryk-sienkiewicz-
                    patronem-2016-r-gosciem-na-spotkaniu-klubu-literackiego-brzeg-13-
                                             maja-2016/]

Negation is excluded for *widać* as a particle (ex. 12a), but possible in its use as a predicative (ex. 12b). In the latter case, the complementizer *aby/żeby/by*[5] can be used instead of *że*; this choice is conditioned by the speaker's epistemic assessment, not by any particular evidential function:

(12) a.   *Ty*   *się*   *(*nie)*   **widać***   *ba-ł-eś.*
           2SG.NOM   RM   NEG   see.PTC   fear[IPFV]-PST-2SG.M
           '(*Not) **obviously**, you were afraid.'   particle
      b.   *Nie* **widać***,   *aby-ś*   *się*   *ba-ł*
           NEG   see.PRED   COMP.IRR-2SG   RM   fear[IPFV]-PST-(SG.M)
           /że   *się*   *ba-ł-eś.*
           /COMP   RM   fear[IPFV]-PST-2SG.M
           'One cannot see that you were scared.'   predicative

---

5 All three complementizers produce ambiguity with regard to the time of the event in the complement, since the element *-by* has evolved out of a subjunctive marker which requires the past form (< *l*-participle) on the verb.

Finally, *widać* cannot be used as a one-word reply. It has to be accompanied at least by a demonstrative serving as sort of sentential placeholder.[6] Compare a refrain from a pop-song:

(13)   *Jestem*   *z*   *miast-a,*   *to*   **widać,**
      be.PRS.1SG   from   city[N]-GEN.SG   PTC   see.PRED
      jestem   *z*   *miast-a,*   *to*   **słychać,**
      be.PRS.1SG   from   city[N]-GEN.SG   PTC   hear.PRED
      jestem   *z*   *miast-a,*   *to*   **widać,**
      be.PRS.1SG   from   city[N]-GEN.SG   PTC   see.PRED
      słychać   *i*   **czuć.**
      hear.PRED   and   feel.PRED
      'I'm from the city, **one can see** it, I'm from the city, **one can hear** it, I'm from the city, **one can see** it, **hear** it and **smell** it.'

                                            [K. Sienkiewicz, "Jestem z miasta", 1987]

Other units used as predicatives and relevant for evidentiality are *słychać* 'hear', *czuć 'feel, smell' and znać 'know'*. Originally, all of these units are infinitives that have been isolated from their paradigms when occurring with evidentiality-related functions. However, only *widać* and *słychać* have lost all remaining forms of the former paradigm (see Section 11.5.1), while *czuć* and *znać* remain to be used frequently as the basic verb of sensory feeling (*czuć*) or as basic verb with the meaning 'know' (*znać*), respectively. The latter two are used as predicative markers more rarely than *widać* or *słychać*, and they show no signs of evolving into particles (as has been the case for *widać*). In the following *czuć$_1$/znać$_1$* will refer to the fully inflected verbs, whereas *czuć$_2$/znać$_2$* stand for the predicative units relevant for evidentiality.

    The evidential functions of *czuć$_2$* and *znać$_2$* have remained tightly associated with the lexical meaning of the cognate verbs. Admittedly, *czuć$_2$* is somewhat biased in that it mainly refers to immediately perceivable smells (ex. 14a–b). It rarely refers to tactile perception (ex. 15a–b), but it can be used figuratively, i.e. with reference to emotions (ex. 16).

(14) a.   *W*   *piwnic-y*   **czuć$_2$**   *stęchlizn-ę.*
          in   cellar-LOC   feel-PRED   mustiness-ACC
          'In the cellar one **can smell** mustiness.'

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6 In this case, *widać* (as well as *słychać*) has to be qualified as a predicative. The same applies to *znać$_2$* and *czuć$_2$* analyzed below.

b. ***Czuć₂*** *od niego wódk-ę.*
feel.PRED from him.GEN vodka-ACC
'He **smells** of vodka.'

(15) a. *W tym miejscu już* ***czuć₂*** *grunt pod nog-ami.*
feel.PRED ground-(ACC.SG) under foot-INS.PL
'In this place one **can feel** his feet to be on firm ground.'

b. ***Czuć₂*** *tu wyraźnie, że dno jest piaszczyste.*
feel.PRED here noticeably COMP
'Here **one can** clearly **feel** that the bottom is sandy.'

(16) *W tekście* ***czuć₂*** *nostalgi-ę i tęsknot-ę,*
feel.PRED nostalgia-ACC and longing-ACC
co autor wyjaśnia traumatycznymi przeżyciami osobistymi.
'In the text **one can feel** longing and nostalgia. The author accounts for
it with his traumatic personal experience.'
[https://moviesroom.pl/popkultura/ksiazki/1612-jack-ketchum-czas-
zamykania-recenzja/]

The verb *czuć₁* is not restricted to olfactory and tactile perception (ex. 17a), it can
also be used figuratively with reference to internal states (ex. 17b). In all cases
the source of the perception can be indicated (usually by PPs):[7]

(17) a. ***Czuj-ę₁*** *zapach/smak/twardość przedmiot-u.*
feel[IPFV]-PRS.1SG (smell/taste/hardness)-(ACC) object-GEN
'**I feel** the smell/taste/hardness of the object.'

b. ***Czuj-ę₁*** *ból/niesmak/lęk (w duszy/w sercu).*
feel[IPFV]-PRS.1SG (pain/disgust/fear)-(ACC)
'**I feel** pain/disgust/fear (in my soul/my heart).'

Like *czuć₁*, *czuć₂* can realize its complement as a NP (in the accusative) or as a
finite clause:

(18) a. *W pokoj-u* ***czuć₂*** *śwież-e ciast-o.*
in room-LOC feel-PRED (fresh cake)-ACC
'In the room **one can smell** a freshly baked cake.'

b. *W kuchn-i* ***czuć₂,*** *że piecze się ciasto.*
in kitchen-LOC feel-PRED COMP

---

7 If not indicated otherwise, the examples in the remainder of this subsection are quoted from
Grzegorczykowa (1990: 567–570), partially with adaptations.

'The kitchen **smells** of baked cake.' (lit. 'In the kitchen one can smell that a cake is being baked.')

Czuć₁ with *jak* as a complementizer introduces clauses concerning tactile or kinaesthetic perception (ex. 19), olfactory perception (ex. 20) as well as the perception of physiological symptoms of emotions (ex. 21):

(19) (...) *nie może unieść ciężkich powiek, choć słyszy, jak on wstaje,*
gimnastyka, idzie do łazienki, słyszy, że wraca i się ubiera,

czuj-e,	***jak***	*pochyla*	*się*	*nad*	*nią*
feel[IPFV]-PRS.3SG	how	lean[IPFV]-(PRS.3SG)	RM	above	her.INS

i	*patrzy,*
and	look[IPFV]-(PRS.3SG)

nim wyjdzie z pokoju (...).
'She cannot lift her heavy eyelids, though she can hear him getting up, exercising, going to the toilet. She can hear that he is coming back and dressing up. **She can feel** him leaning over her and looking at her before he leaves the room.'   [H. Samson: "Pułapka na motyla", 2000]

(20) *Było mi coraz cieplej, siedziałam i*

czu-ł-a-m,	***jak***	*śmierdz-ę:*
feel[IPFV]-PST-F-1SG	how	stink[IPFV]-PRS.1SG

niewyspaniem, strachem, potem i ciągle jeszcze tym pieprzonym olejem.
'I was warmer and warmer. I was sitting **feeling** myself stink of: lack of sleep, fear, sweat and, still, this fucking oil.'   [M. Soból: "Mojry", 2005]

(21)

Czuj-ąc,	***jak***	*złość*	*podchodzi*	*jej*
feel[IPFV]-CVB	how	anger	approach[IPFV]-(PRS.3SG)	her.DAT

do	*gardł-a,*
till	throat-GEN

wylewa z siebie potok żółci.
'**Feeling** a flare of anger within her, she pours out a stream of bile.'
[E. Cechnicka: "Znak Anny", 1997]

Czuć₂ with *jak* is very rare and probably restricted to sensual perception of the sorts just mentioned; compare:

(22) *Namiot dygocze, pod nami lód trzeszczy i rusza się. Niesamowite wrażenie.*

Czuć₂,	***jak***	*lód*	*napręża*	*się.*
feel.PRED	how	ice[M]-(NOM.SG)	tense[IPFV]-(PRS.3SG)	RM

'The tent is shaking, the ice below us is creaking and moving. Incredible impression. **One can feel** the ice tensing.'
[M. Kamiński, W. Moskal, Sł. Swerpel: "Nie tylko biegun". 1996]

However, as for smelling impressions, the stimulus-argument allows for two different patterns of realization (Grzegorczykowa 1990: 568). One of these patterns appears to be correlated with a slight shift (or rather: further narrowing) in meaning: if the smell is not qualified (positively or negatively), any of the aforementioned valency patterns can be obtained; if the smell is qualified negatively (as odor or similar), finite clauses seem to be unattested, but the stimulus-argument can be coded with the instrumental (instead of the accusative; see ex. 23), and the "carrier" (or source) of the unpleasant smell can be coded with the accusative (ex. 24–25):

(23) ***Czuć₂***   *od*   *niego*   *wódk-ą*.
      feel.PRED   from   him.GEN   vodka-INS
      'He **smells** of vodka.'

(24) *Kiełbas-ę*   ***czuć₂***   *dym-em*.
      sausage-ACC   feel.PRED   smoke-INS
      'The sausage **smells** of smoke.'

(25) *W*   *mieszkani-u/Mieszkani-e*   ***czuć₂***   *stęchlizn-ą*.
      in   flat-LOC/flat-ACC   feel.PRED   mustiness-INS
      'The flat **smells** of mustines.'

Moreover, there are valency patterns involving strict lexical restrictions, for instance, one in which the source is coded with the dative of a personal pronoun or proper name; it codes the inalienable possessor of the body part from which the smell evades. The smell is negatively qualified and this feature is a semantically incorporated part of the construction. Compare (26) with (24):

(26) ***Czuć₂***   *mu*   *z*   *ust*.
      feel.PRED   him.DAT   out off   mouth-(GEN)
      'He has bad breath.' (lit. 'One can smell from the mouth on him.')

Contrary to *czuć₂*, *znać₂* is much more biased toward inferential use, although reference to directly observable objects is not excluded (ex. 28). Accordingly, *znać₂* usually occurs with finite clauses or NPs headed by event nouns (ex. 27a-b), only rarely with NPs of another semantic class (ex. 28). It thus shares all basic semantic and syntactic properties with *widać* (and could be replaced by the latter in all the examples adduced here). As with *widać*, the basis of inference can be indicated as well:

(27) a. ***Znać₂***   *po*   *wychudzeni-u*,   *że*
          understand.PRED   on.basis   emaciation-LOC   COMP
          przeszedł ciężką chorobę.

'<u>By his emaciation</u> **one can see/understand** that he got over a serious illness.'

b. ***Znać₂***   *niezadowoleni-e*   *na*   *jego*   *twarz-y.*
understand.PRED   dissatisfaction-ACC   on   his   face-LOC
'**One can see** dissatisfaction on his face.'

(28)   *Blizn-y*   *po*   *przebyt-ej operacj-i*   ***nie***   ***znać₂.***
scar-GEN   after   (overcome surgery)-LOC   NEG   understand.PRED
'The scar after the surgery **is not discernible**.'

Whether or not the inference with *znać₂* must be based on some direct observation or can also be made on some deductive ground remains an open question. Corpus examples for inferences with no connection to observation are hard to find. However, *znać₂*, as well as the predicative *widać*, can mark inferences for which interpretations of intellectually more complex (and not directly perceivable) states of affairs are crucial; compare:

(29)   *Homoseksualne kino Jarmana nie ma w sobie tego <u>ciężaru kompleksu,</u>*
<u>któr-y</u>   ***znać₂***   ***by-ł-o***
REL-ACC.SG.M   understand.PRED   be-PST-N
w   *film-ach*   *Pasolini-ego czy*   *Fassbinder-a.*
in   film[M]-LOC.PL   PN-GEN   or   PN-GEN
'Jarman's gay Cinema does not have this <u>weight of a complex which</u> **could be seen** in movies by Pasolini or Fassbinder.'
     [T. Sobolewski, "Arcydzieło Rohmera", *Gazeta Wyborcza*, 1992.02.19]

(30)   [Ideologia Marksizmu powiada człowiekowi:] *my, rozwiązując problemy*
całego społeczeństwa [...] zarazem rozwiążemy te kłopoty, które wydawały
ci się twoje.
Jak   *na*   *dłon-i*   ***widać,***   ***iż***
like   on   palm[F]-LOC.SG see.PRED   COMP
filozoficznym celem całej marksistowskiej refleksji o kondycji Jednostki jęła
w pewnym momencie rządzić konieczność dopasowania koncepcji
człowieka do koncepcji społeczeństwa.
'Marxist ideology tells: by solving problems of the whole society [...] we will at the same time solve problems you believed to be yours. It is **clear that** the philosophical aim of the whole marxist reflection on the condition of individual at a certain moment started to be ruled by the necessity of adjusting the concept of man to the concept of society.'
         [Chr. Skrzyposzek, "Wolna Trybuna", 1985]

Czuć₂ in its inferential use can behave in a similar way:

(31) *Przed 5-tą wpadamy do Melun i prawie nie zwalniając, znowu na szosę.*
      Czuć₂   *Paryż.*
      feel.PRED   PN-(ACC)
      Dużo rowerów i tandemy.
      'Before five we ride into Meluny and merely slowing down again on the road. **One can feel** Paris. A lot of bicycles and tandems.'
                                                    [A. Bobkowski, "Szkice piórkiem", 1957]

In (31), acts of visual perception (of bicycles and tandems) trigger the inference. There are also numerous examples for the use of *czuć₂* and *znać₂* with reference to acoustic perception (see ex. 32–33). These are in contrast to the predicative *widać*, for which reference to acoustic perception, though imaginable, can be considered at best marginal.

(32) *W głosi-e Piki-ego ciągle **czuć₂** **by-ł-o** uraz-ę.*
      in voice-LOC PN-GEN still feel.PRED be-PST-N grudge-ACC
      'One **could** still **feel** a grudge in Piki's voice.'
                  [M. Miller, "Pierwszy milion czyli Chłopcy z Mielczarskiego", 1999]

(33) *Oczywiście ostatecznie wybąkuje odpowiednie słowa –*
      *prawdziw-ego twardziel-a **znać₂** po t-ym,*
      (genuine tough.guy)-ACC know.PRED on.basis DEM-LOC.SG.N
      jak mówi "kocham".
      'Of course finally he mumbles the right words – **you can tell** a really tough guy by the way he says "I love you".'
                                    [https://esensja.pl/film/publicystyka/tekst.html?id=8227]

Like the predicatives *widać* and *słychać*, *czuć₂* and *znać₂* can be negated (see ex. 28, 34), and likewise, they do not allow the judging (or sensing) subject to be named explicitly (in any of their syntactic patterns):

(34) *Z jego ust nie **czuć₂** (*mi) czosnk-u.*
      out.off his mouth-(GEN) NEG feel.PRED 1SG.DAT garlic-GEN
      'I can't **smell** garlic in his breath.'

(35) ***Znać₂** (*nam) z jej ocz-u, że nie*
      understand.PRED 1PL.DAT out.off her eye-GEN.PL COMP NEG
      kłami-e.
      lie[IPFV]-PRS.3SG
      'From her eyes **you can tell** she's not lying.'

11.2.1.2 Other inferential units

Widocznie 'obviously' and *najwidoczniej*, *najwyraźniej* and *wyraźnie* 'evidently' do not distinguish between contexts where the inference is made on the basis of perceptual traits or rather deductively (Grochowski 2008a: 140–143). We may probably add *ewidentnie* 'evidently' to this type (see below). These units are also used if the inference is based on introspection (ex. 36), but usually the inference is triggered by a singular event that was perceived directly. The inference is then further based on different kinds of world knowledge, either of the physical world (ex. 37), of cultural habits (ex. 38), of behavioral patterns (ex. 39), or related to other sorts of abduction (ex. 40):

(36)   *Całe życie trzeba mieć za sobą, żeby zrozumieć nostalgię!*
     Najwidoczniej   *ma-m*   *za*   *sob-ą*
      obviously   have[IPFV].PRS-1.SG   behind   REFL-INS
      cał-e   *życi-e*   *i*   *jeszcze*   *kawałek [...]*,
      whole-ACC.SG.N   life[N]-ACC.SG   and   some_more   bit[M]-(ACC.SG)
      <u>*bo rozumiem nostalgię*</u>.
      'You need to have a whole life behind you to understand nostalgia! I have **apparently** a whole life behind me and a bit more, <u>because I understand nostalgia</u>.'   [A. Bojarska, M. Bojarska, "Siostry B.", 1996]

(37)   <u>*Ulica jest mokra,*</u>   *w nocy*   ***widocznie***   *pada-ł*
                        in night-LOC   evidently   fall[IPFV]-PST-(SG.M)
      deszcz.
      rain[M]-(NOM.SG)
      '<u>The street is wet</u>. It **must** have been raining at night.'
                                     [modified from Grochowski 2008a: 141]

(38)   *Duchown-y*   ***najwyraźniej***   *skończy-ł*,
      clergyman[M]-NOM.SG   obviously   finish[PFV]-PST-(SG.M)
      <u>*bo grabarze spuścili na linach trumnę w głąb przygotowywanej jamy*</u>.
      'The clergyman had **evidently** finished, <u>because the gravediggers lowered the coffin on ropes into a hole they were preparing</u>.'
                                          [cited from SGPP 2014: 55]

(39)   *Kobieta podłożyła zwierzęciu dzban pod pysk,*
      a   *jemu*   ***widocznie***   *podoba-ł*   *się*
      CONJ   him.DAT   evidently   please[IPFV]-PST-(SG.M)   RM
      zapach,   <u>*bo zaczął za nią iść w kierunku sceny*</u>.
      smell[M]-(NOM.SG)

'The woman placed a jug in front of the animal's face. The animal **seemed** to like the smell, <u>because it started to follow her toward the centre of the arena</u>.' [cited from SGPP 2014: 59]

(40) *Now-a*   *praktykantk-a*   **najwidoczniej**   *robi*
new-NOM.SG.F   trainee[F]-NOM.SG   evidently   make[IPFV]-(PRS.3SG)
świetn-e ujęci-a
(fine take)-ACC.PL
ze zbliżenia w półmroku hotelowych sypialni, <u>skoro dziś po godzinach pracy w swoim gabinecie mianował ją naczelnym fotografem</u>.
'The new trainee **must** be doing fantastic close-up takes in dark hotel bedrooms, <u>if today, after hours, in his office he appointed her main photographer</u>.' [cited from SGPP 2014: 54]

Among inferences triggered by perceptional events, visual perception seems to account for the use of these units only in a minority of cases (Wiemer 2006: 51). According to Grochowski (2008a: 135), these inferential particles typically (though not exclusively) occur in complex sentences. Grochowski (2008a: 138) does not consider *widocznie* an inferential unit because it refers to data gathered by (visual) perception. However, as we have seen above, with predicatives (Section 11.2.1.1), the boundary between direct perception and inferences based on simultaneous perception is by no means clear-cut (and it is rather a question relating to psychology of knowledge or epistemology than to linguistics).

    Widać can also be used for inferences based on generalized knowledge:

(41) *W domu u nas kłopot. Zuch się gdzieś zawieruszył i nie wraca od kilku dni. <u>Ale ja pamiętam, że już nieraz tak było, że Zuch gdzieś ginął, a potem się znajdował.</u>*
Widać   *ma*   *swoj-e*   *psi-e*   *spraw-y*
obviously   have[IPFV].PRS-(3SG)   (POSS.RM   doggy   matter)-ACC.PL
i nie należy mu dokuczać.
'At home we have a trouble. Zuch went astray and hasn't come back for a few days. <u>But I remember that it happened not once that Zuch got lost somewhere, but then showed up</u>. He **must** have his own dog's business and one shouldn't bother him.' [St. Kowalewski: "Czarne okna", 1961]

However, for the other inferential units discussed in this subsection, this usage is less common.

Najwidoczniej seems to be clearly preferred if the inference is based on simultaneous perception.[8] It is therefore typically found in stage directions (ex. 42) or movie scripts. Consider also (43), from a handbook on paleobiology, where inferences concerning extinct organisms are based on photos of fossils printed in a handbook:

(42) *W diecezji. BISKUP stoi profilem na tle okna otwartego i trzyma ręce splecione na brzuchu.*

Młynk-uje	*palc-ami,*	**najwidoczniej**	*zadowolon-y.*
whirl[IPFV]-PRS.3SG	finger[M]-INS.PL	obviously	satisfied-NOM.SG.M

'In the diocese. The bishop is standing with his profile against a background of an open window with his hands entwined on his stomach. He is whirling his fingers, **apparently** satisfied.'

[M. Pankowski, "Ksiądz Helena: wybór utworów dramatycznych", 1996]

(43) *Na początku środkowej kredy (alb) pojawiły się w koloniach jednej z linii ewolucyjnych osobniki z dodatkowymi komorami służącymi do wylęgu larw. Wkrótce potem ujścia pojedynczych zooeciów przybrały ósemkowaty zarys w wyniku rozrostu wieczek,*

któr-e	**najwidoczniej**	*wciąż*	*mia-ł-y*
REL-NOM.PL.NVIR	obviously	permanently	have[IPFV].PST-3.NVIR

kształt	*półkolist-y.*
shape[M]-(ACC.SG)	semicircular-ACC.SG.M

'At the onset of the mid-Cretaceous (Alb), the colonies of a certain evolutionary line began to produce individuals with extra chambers intended for larva breeding. Soon afterwards, the ostia of individual zooecia became octal in shape as a result of enlargement of the lids which **apparently** must have retained their semicircular shape.'

[J. Dzik, "Dzieje życia na Ziemi: wprowadzenie do paleobiologii", 1992]

Widocznie 'visibly' is sometimes named along with other manner adverbs like *ewidentnie* 'evidently', *wyraźnie* 'clearly', *zauważalnie* 'noticeably', *uchwytnie* 'perceptibly'. At least one of them, namely *ewidentnie*, seems to have an additional function as an inferential marker (with scope over an entire proposition); see (44):

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8 In a sample of 200 corpus hits of *najwidoczniej* randomly selected from the balanced NKJP, 95 (48%) occurred in contexts indicating inferences based on simultaneous perception. In case of *widać* such contexts made up 35% of the records taken into account, while in case of *widocznie* the percentage amounted to 28% (access on 12.10.2018).

(44) *Na statku mieszkali w kajucie i prawie nie zadawali się z innymi*
      pasażerami. Byli zbyt zajęci sobą.

Ich	*związek*	***ewidentnie***	*przechodzi-ł*
their	relationship[M]-NOM.SG	evidently	pass[IPFV]-PST-(SG.M)

trudn-e	*chwil-e.*
difficult-ACC.PL	moment[F]-ACC.PL

Całymi godzinami rozmawiali, dyskutowali, kłócili się.

'On board the ship they lived in a cabin and hardly socialized with the
other passengers. They were too preoccupied with each other. Their rela-
tionship was **obviously** going through a hard time. They were talking,
arguing, fighting for hours on end.'   [M. Cegielski: "Masala", 2002]

11.2.2   Inferential extensions of modal auxiliaries

This subsection discusses *musieć* 'must' and *powinien* 'ought to, should', which
are necessity modals. *Musieć is* one of the core modals in Polish, it can be re-
garded as the lexification of the necessity operator in virtually all domains of
modality (dispositional, circumstantial, deontic, epistemic). Even in epistemic
use it allows for both internal and external negation, with iconic interpretations
(Hansen 2001: 140–143); compare:

(45) | ***Musia-ł*** | *go* | *nie* | *widzie-ć.* |
      |----------------|------|-------|-------------|
      | must-PST-(SG.M) | him.ACC | NEG | see[IPFV]-INF |

      'He **must** not **have** seen him.'
      → epistemic, internal negation

(46) *Sądząc po wychudzeniu trzech mężczyzn i jednej kobiety, muzycy nie*
      zarabiali dużo,

jednak	*właściciel*	***nie***	***musia-ł***
however	owner[M]-(NOM.SG)	NEG	must-PST-(SG.M)

by-ć	*kutw-ą,*
be-INF	cheapskate[M]-INS.SG

bo odpadające gdzieniegdzie tynki zdradzały, że przestał być człowiekiem
nadmiernie bogatym.

      → epistemic, external negation

'Judging by how thin the three men and a woman were, the musicians
did not earn much, but the owner **need not have been** a cheapskate, as
the plaster peeling off here and there revealed that he was no longer an
excessively affluent man.'   [Bart, "Fabryka Muchołapek", 2008]

In epistemic use, *musieć* can acquire inferential function. When it does, it is often encountered in contexts with covert or overt indications of the speaker's judgment.[9] A perusal of corpus hits shows that *musieć* does not discriminate between inferences based on perceptually accessible information and other modes of knowledge (deduction, encyclopaedic knowledge). Compare (47), in which the speaker's judgment is induced from observations of related circumstances, e.g. red eyes. By contrast, in (48a–b) the speaker cannot support their judgment by observable data, instead they rely on encyclopaedic knowledge:

(47)   **Musia-ł-a**   *już*   *sporo*   **napłaka-ć**   **się**
      must-PST-3SG.F   already   much   cry_extensively[PFV]-INF   RM
      przed   *mo-im*   *przyjazd-em,*
      before   my-INS.SG.M   arrival[M]-INS.SG
      bo oczy miała czerwone.
      'She **must have been crying** a lot before my arrival, because her eyes were red.'   [J. Grzegorczyk, "Chaszcze", 2009]

(48)   a.   (…) *nie mogę oprzeć się zdumieniu, że oto właśnie dzisiaj, w tak uroczystym dniu, najzacniejsi z naszego grona siadają z dala, jakby się czuli dotknięci i urażeni.*
           Bardzo   *t-o*   **musi**   **by-ć**   **przykr-e**
           very   DEM-NOM.SG.N   must.PRS-(3SG)   be-INF   unpleasant-NOM.SG.N
           dla ludzi prostych (…).
           'I cannot resist astonishment that exactly today, at this festive day, the most worthy persons from our circle sit down at a distance, as if they felt aggrieved and injured. This **must be very unpleasant** for simple people.'   [Szczypiorski, "Msza za miasto Arras", 1971]
    b.   (…) *średnie roczne temperatury całej planety obniżyły się o dwa stopnie od powojennego ochłodzenia,*
           co   **musi**   **się odbija-ć**   *ujemnie*
           what-NOM   must.PRS-(3SG)   RM   reflect[IPFV]-INF   negatively
           także na klimacie Luzanii.
           'Since the after-war cooling of the weather the average middle temperature on the whole planet has dropped, which **must** also **have negative consequences** for the climate of Luzania.'
                                    [St. Lem, "Wizja lokalna", 1982]

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9 In a sample of one hundred records for epistemic *musieć* randomly selected from NKJP, the judgment was somehow indicated in 75 cases (access on 12.10.2018).

Compare also the following example, in which *musieć* is used in connection with different bases of judgment:

(49) *Najpierw się spakowali cywilni Niemcy. Ciężarówka pół dnia stała przed ich kamienicą na Glinianej i załadowano ją po brzegi. Inna ciężarówka zajechała przed nasze Gestapo i ładowano pudła,*
któr-e **musia-ł-y** **by-ć** **ciężki-e**,
REL-NOM.PL.NVIR must-PST-PL.NVIR be-INF heavy-NOM.PL.NVIR
<u>*bo po dwóch je taszczyli*.</u>
Musia-ł-y *też* **by-ć** **bardzo** **ważn-e**,
must-PST-PL.NVIR also be-INF very important-NOM.PL.NVIR
<u>*bo nie zagnali nikogo do tej roboty, tylko sami ładowali*.</u>
'First the civil Germans packed up. The lorry stood before their tenement house on the Gliniana street half of the day, and they loaded it up to its limits. Another lorry arrived at our gestapo building and they put in boxes which **must have been heavy**, <u>since they lugged them with two people each</u>. They also **must have been very important**, <u>since they didn't rush anybody to do this work, but loaded the lorry themselves</u>.'

[H. Grynberg, ""Życie ideologiczne, osobiste, codzienne i artystyczne", 1998]

After the first occurrence of *musieć* the justification of the judgment is based on a visual observation of the narrator, and the causal relation between this observation and the huge weight of the boxes is rather straightforward. The causal relation becomes more complex in the second attestation: a judgment about the significance of some of the boxes is not directly observable, but *per se* it is an assessment. In addition, the causal link is even more mediated since it is inferred on the basis of the doubly underlined assertion (observation) makes the causal link even more mediated. For a more complicated causal link see another example:

(50) *Godz.10.25 – Przy "Rossmannie" – Natrafiamy na <u>kałużę, która utworzyła się w zapadniętym chodniku</u>.*
Ktoś **musia-ł** *tu* **wjecha-ć**
somebody.NOM must-PST-(3SG.M) here drive_in[PFV]-INF
ciężk-im *samochod-em*.
heavy-INS.SG.M car[M]-INS.SG
'10.25 am, at "Rossmann's". – We are coming across <u>a puddle which formed in a sunken pavement</u>. Somebody **must have come here** with a heavy car.'   ["Gazeta Miejska", 2000]

In this respect, in some contexts, *musieć* and the particle *widać* (see Section 11.2.1.1) can become functionally equivalent. Consider an example in which both units co-occur at different places of the context:

(51) *McKinnon zauważył, że rogi te są podobne do poroży oryksów, pustynnych*
      antylop z Afryki i Bliskiego Wschodu. To jasne – pomyślał McKinnon –
      Wietnam był niegdyś francuską kolonią.
      Widać *Francuz-i*   *przywieź-l-i*
      see.PRED Frenchman[M]-NOM.PL.VIR   bring[PFV]-PST-PL.VIR
      w czas-ach   *kolonialn-ych*   *do Indochin*   *trofe-a*
      in time[M]-LOC.PL colonial-LOC.PL.M to Indochina-GEN trophy[N]-ACC.PL
      z Bliskiego Wschodu. Zbadał znalezisko i <u>stwierdził, że jest ono zupełnie</u>
      <u>świeże</u>. *Wietnamsc-y*   *myśliw-i*   **musie-l-i**
                  Vietnamese-NOM.PL.VIR hunter[M]-NOM.PL.VIR must-PST-PL.VIR
      ustrzeli-ć *oryks-a*   *kilka*   *dni*   *wcześniej.*
      shoot[PFV]-INF oryx[M]-ACC.SG couple   day[M]-(GEN.PL) earlier
      'McKinnon observed that these horns were similar to the antlers of
      oryxes, the desert antelopes found in Africa and the Middle East. "Of
      course," McKinnon thought, "Vietnam used to be a French colony. The
      French **must have** brought trophies from the Middle East to Indochina
      during colonial times." He examined the discovery and <u>decided that it</u>
      <u>was quite fresh</u>. Vietnamese hunters **must have shot** an oryx a couple of
      days before.'   ["Gazeta Wyborcza", 1996]

Let us turn now to *powinien* 'should', *which* can be used as a circumstantial, deontic or epistemic modal, but, contrary to *musieć,* is hardly appropriate for dispositional necessity. In deontic use, *powinien* indicates weak obligation, and its epistemic use is less developed than with *musieć* (Hansen 2001: 145–147).[10] Likewise, as concerns inferential readings, the range of bases of inferences appears to be narrower than with *musieć*; at least, it proves difficult to find corpus examples in which the inference would be triggered by directly perceivable

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10 For *powinien*, Hansen does not differentiate between circumstantial and deontic usage, but he focuses on weak obligation and rightly states that in non-epistemic use *powinien* implies that the speaker does not simply reproduce the obligation (as with *mieć*; see Section 11.3.2), but is committed to it personally. Nonetheless, a large proportion of tokens of *powinien* in actual discourse is void of this last element, and the extension of *powinien* into the domain of epistemic and, thence, inferential use, could hardly be explained if we did not assume a "link" via circumstantial usage. This holds all the more as its inferential use is often connected to scheduled events (i.e. events conditioned by objective circumstances, not volition); see the examples discussed immediately below.

events. Typical contexts which allow to ascribe an inferential function to *powinien* rely on encyclopaedic knowledge (see ex. 52–53), in particular some sort of schedule (see ex. 54–55). Contexts in which the justificational basis is somebody's belief are more rarely attested; consider (56) as the protasis of a conditional sequence:[11]

(52) *Sierżant przyglądał się im z coraz większym zakłopotaniem – czegoś tu po prostu nie rozumiał. <u>Pracowali od siódmej rano</u>,*
    powinn-i <u>więc</u> by-ć głodn-i
    should-PL.VIR thus be-INF hungry-NOM.PL.VIR
    jak diabl-i, **powinn-i** *wprost rzuci-ć się*
    like devil[M]-NOM.PL.VIR should-PL.VIR directly throw[PFV]-INF RM
    łapczywie na przywieziony przez niego posiłek. A tymczasem... tymczasem byli jacyś ospali, powolni, aż dziwni.
    'The sergeant looked at them attentively with an increasing embarassment – something he didn't understand here. <u>They had been working since seven in the morning</u>, <u>thus</u> they **must** be enormously hungry, actually they **should** pounce hungrily on the meal which he had just brought. But instead... instead they were somewhat drowsy and slow, even strange.'
        [J. Gotowała, "Najkrócej żyją motyle: lotnictwo rozpoznawcze wciąż niezbędne", 1996]

(53) *Matka kazała grzybów nazbierać. <u>Nad ranem padało</u>,*
    powinn-y by-ć. *Pójdziesz?*
    should-PL.NVIR be-INF
    'Mummy said that we should gather mushrooms. <u>It rained in the morning</u>, there **should** be mushrooms. Will you go?'
        [A. Minkowski, "Szaleństwo Majki Skowron", 1972]

(54) <u>*Kloss spojrzał na zegarek.*</u>
    Powinn-i *już* by-ć! **Powini-en** *ich za chwil-ę*
    should-PL.VIR already be-INF should-SG.M them.ACC in moment-ACC
    zobaczy-ć przez okno wchodzących na dziedziniec.
    see[PFV]-INF
    'Kloss looked at his watch. **They should** be already! After a while **he should** see them through the window going into the courtyard.'
        [A. Szypulski, Z. Safjan, "Stawka większa niż życie", 1967]

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11 Cf. also Jędrzejowski (2015: 128), where however the knowledge basis remains unspecified.

(55) *Na szczęście był <u>środek nocy</u> i wszysc-y   mieszkańc-y*
                                                      all-PL.VIR inhabitant[M]-NOM.PL.VIR

       powinn-i   *by-l-i*   *spa-ć.*
       should-PL.VIR be-PST-PL.VIR sleep[IPFV]-INF
       'Fortunately, it was <u>in the middle of the night</u> and all residents **ought to**
       be asleep.'   [T. Kołodziejczak, "Krew i kamień", 2003]

(56) <u>*Gdyby wierzyć od początku twoim ocenom,*</u>
       Vassone już   dawno   **powinn-a** *by-ć*   *martw-a.*
       PN[F]   already since.long should-SG.F be-INF dead-NOM.SG.F
       '<u>If I were to believe your judgment from the start</u>, Vassone **should** have
       died already a long time ago.'   [J. Dukaj, "Czarne oceany", 2001]

One wonders whether the meaning extension into inferentiality arises from circumstantial or from deontic backgrounds. Although both uses are equally well developed, the extension from circumstantial usage seems more plausible (see fn. 8). Apart from the preference for scheduled events, we observe a transition from circumstantial modality if we compare *powinien* and *mieć*. The use of the latter in the reportive domain is clearly motivated by deontic modality (see Section 11.3.2). Look at (55): *powinni byli spać* '(they) were supposed to sleep' indicates that the speaker backs their assumption on objective circumstances (and on knowledge about the normal course of a day-night rhythm). If we replace *powinni byli* by *mieli* '(they) had to sleep', the message would change: *mieli* would indicate that the inhabitants were somehow ordered to sleep. These different overlaps with modality subdomains suggest that the road of *powinien* into inferentiality probably does not orginate in volition-related (i.e. deontic), but in circumstantial modality.

11.2.3 Markers derived from SEEM-verbs

Zdaje się i *wydaje się* '(it) seems' are largely interchangeable, both as CTPs (with clausal arguments linked by a complementizer) and as petrified verb forms which practically have become particles often used parenthetically (like many SEEM-verbs in other European languages). Especially as particles, they are associated to perception-based inferences and generally they are not used if the inference is based on logical deduction or encyclopaedic knowledge. Nonetheless, *zdaje się* shows more "functional leeway", as it can be encountered (though rather marginally) in contexts of hearsay and in contexts closely connected to, but outside of, evidentiality (see Sections 11.4.1–11.4.2). It is possible

that more subtle differences between *zdaje się* i *wydaje się* will be established as the result of usage-based in-depth studies.[12] For the time being, we only add that differences in the range of functions which we noted above may also be due to differences in frequency; *zdaje się* (at least as a particle) seems to be more frequent than *wydaje się*. At present, since the NKJP has not been annotated for syntactic categories and meanings, it is impossible to reliably test this assumption in corpus data: the segments *wydaje się* and *zdaje się* are homonyms for heterosemic units in more than one grammatical form. Nonetheless, we were able to "filter out" both units used as paradigmatically isolated items (i.e. as sort of particles) in a balanced corpus (NKJP; request on Jan., 14, 2014). In this use *zdaje się* is much more frequent (111 out of 500 tokens) than *wydaje się* (only 1 out of 500 tokens). Together with this, in the same sample, *wydaje się* occurs with a dative-NP coding the judging person (in 80 out of 500 tokens) more often than does *zdaje się* (11 out of 500 tokens). NPs (or PPs) indicating the judging agent have been acknowledged as being a hinderance for the acquisition of inferential meanings by researchers of different convictions (e.g., Danielewiczowa 2002: 187f.; Cornillie 2007: 80–82, and the other language-specific chapters in this volume).

11.3 Reportive markers

In contemporary Polish, there are three sentence adverbs (or particles) which have become reportive markers without covering any other evidential subdomain, and which simultaneously are not used for functions outside evidentiality proper (apart from 'epistemic overtones'):

(57)   *podobno*, *ponoć*, *rzekomo* 'allegedly, reportedly'.

Ponoć and *podobno* are largely synonymous (interchangeable)[13] and do not carry any epistemic overtones by themselves. By contrast, *rzekomo* has often been claimed to convey the speaker's doubt as for the veracity of the reported

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12 Danielewiczowa (2002: 196f.), by way of introspection, surmised that *wydaje się* would be used (and *zdaje się* excluded) if the speaker evaluates some physical properties, e.g. somebody's way of speaking (e.g., *Czy nie **wydaje ci się**/*nie **zdaje ci się**, że ona sepleni?* 'Doesn't it **seem to you** that she has a lisp?'). Anyway, this observation pertains to the CTP-use of these verbs with the enclitic dative pronoun marking the speaker (= judging subject). A provisional check for their particle-use (without that pronoun) yielded no clear results (Wiemer 2006: 57f.).
13 Another synonymous sentence adverb, *podobnież* (not to be confused with the manner adverb *podobnie* 'similarly'), is very rare (Wiemer 2006: 26f.).

content (see Section 11.3.1). There is a fourth sentence adverb (particle) with hearsay function, *jakoby*. Thus it could be added to the list in (57); however, *jakoby* is also used as complementizer. It is thus heterosemic, although as a particle the reportive function appears to be the only one attested. By contrast, when used as a complementizer it can still be encountered in inferential contexts and as marker of irreal comparison (see Section 11.5.3).

There are two other heterosemic units associated (although for different reasons) to the domain of hearsay, *niby* and *słychać*. These units are peculiar both from a semantic and a syntactic point of view, so that we will discuss them in Section 11.5. Furthermore, the petrified verb forms *zdaje się* and *wydaje się* '(it) seems' (see Section 11.2.3) scratch the reportive domain only marginally and will be discussed in Section 11.4. Last but not least, the auxiliary *mieć* 'have to' (< 'have') is used as a reportive marker. This function developed as an extension from its deontic, or echoic, use. The polyfunctionality of *mieć* practically coincides with Germ. *sollen*, which is used in the same two functional domains (deontic modality and reportive evidentiality); cf. Mortelmans and Stathi (this volume). However, since the reportive function of *mieć* is inextricably connected to interpretive semantics and, in this respect, more complex than the reportive use of the other markers just mentioned and discussed in Section 11.3.1, a separate subsection is dedicated to it (Section 11.3.2).

11.3.1 Reportive sentence adverbs (particles) and one reportive adjective

Let us first concentrate on *podobno*, *ponoć*, *rzekomo* and *jakoby*. As mentioned above, *podobno* and *ponoć* are mere hearsay markers, they carry epistemic overtones solely due to favorable context conditions. One may thus assume that their epistemic meaning components constitute some sort of conversational implicature (Wiemer 2006: 24). As for *rzekomo* and *jakoby*, negative epistemic stance has been claimed to be not cancellable and, thus, to form part of their inherent semantics. Moreover, the particles have often been implicitly arranged on a scale of increasing uncertainty as for the veracity of the reported proposition. For instance, consider, the following scale (Wiemer 2006: 24, 39, 43):

(58)   *podobno/ponoć*
         'I think that P might be not true.'
         > jakoby
         'I think that P can be not true.'
         > rzekomo
         'I think that P is not true.'

In this approach, *rzekomo* expresses the highest degree of doubt, consisting in the complete lack of "credence to the reported piece of information" (Wiemer 2006: 39; cf. already Wierzbicka 1971: 109f.; Bralczyk 1978: 84f.; Rytel 1982: 48). However, the paraphrase of *rzekomo* seems to be too strong. On the one hand, *rzekomo* is typically used when context information identifies the referred message as obviously false (see ex. 59). On the other hand, there are numerous corpus examples, like the newspaper reports in (60) and (61), where *rzekomo* does not indicate the speaker's belief that the referred information is not true. (60) is about an accusation in a trial. *Rzekomo* does not really question this accusation; its purpose is rather to stress the journalist's decidedly neutral stance regarding the veracity of the reported information.[14] In (61), the journalist is simply unable to verify the reported information with more diligence due to spatial restrictions.

(59) *Mężczyzna,*

    któr-y   *chcia-ł*   *je*

    REL-NOM.SG.M   want[IPFV]-PST-(3SG-M)   3N.PL.ACC

    rzekomo   *od*   *niego*   *odkupi-ć,*

    allegedly   from 3M.SG.GEN buy[PFV]-INF

    próbował je skráść.

    'The man who **allegedly** wanted to buy them from him tried to steal

    them.'   ["Dziennik Bałtycki", 17.03.2001]

(60) *Przed sądem w mieście Brest na zachodzie Francji rozpoczął się proces (...) drugiego dowódcy na statku Melbridge Bilbao,*

    któr-y   ***rzekomo***   *nie*   *zapobieg-ł*

    REL-NOM.SG.M   allegedly   NEG   prevent[PFV]-PST-(3SG.M)

    osadze-ni-u   *jednostk-i*   *na*   *mieliźni-e*

    run_aground-NMLZ-DAT unit[F]-GEN.SG on   shallow[F]-LOC.SG

    na wodach Zatoki Mojańskiej. 43-letni Władimir Czernyszow został oskarżony o spowodowanie zagrożenia życia i zdrowia załogi przez pogwałcenie podstawowych obowiązków i zasad sztuki nawigacyjnej – napisano w akcie oskarżenia.

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14 Celle (2009: 285) comes to a similar conclusion with respect to English *allegedly*. Of course, in Polish, as in English, this custom results from professional ethical rules and standards, according to which journalists have to respect the presumption of innocence and refrain from making judgments (cf. e.g. *Resolution 1003 (1993) on the Ethics of Journalism* of the Parliamentary Assembly of the Council of Europe; http://assembly.coe.int/Main.asp?link=/Documents/AdoptedText/ta93/ERES1003.htm. Accessed: August, 12, 2013).

'The trial began in the city of Brest in Western France of (...) an officer on the ship Melbridge Bilbao, who **allegedly** did not prevent the ship from running aground in the Bay of Molene. The indictment states that Vladimir Tshernyshov, aged 43, is accused of endangering the lives of his fellow crew by flouting the basic duties and rules of the art of navigation.'

["Rzeczpospolita", 01.09.2002]

(61) *Mimo intensywnych bombardowań okolic Tora Bora (...) Amerykanie nie wiedzą, gdzie jest Saudyjczyk.*

***Rzekomo** widzia-no mężczyzn-ę przypominając-ego*
allegedly see[IPFV]-PST.IMP man[M]-ACC.SG resembling-ACC.SG.M
terroryst-ę, jak konno wizyt-uje
terrorist[M]-ACC.SG how/as on_horse visit[IPFV]-PRS.3SG
pozycj-e talib-ów.
position[F]-ACC.PL taliban[M]-GEN.PL
Przechwycono też rozmowę radiową z Kandaharu z pytaniem o "szejka".
Odpowiedź brzmiała: "Szejk czuje się dobrze."
*Ów "szejk" to **rzekomo** bin Laden.*
DEM-(NOM.SG.M) sheik[M]-NOM.SG PTC allegedly PN[M]-(NOM)
'Despite severe bombardment of the surroundings of Tora Bora (...), the Americans do not know where the Saudi is. A man resembling the terrorist was **allegedly** seen on horseback visiting the Taliban positions. A radio conversation from Kandahar containing a question about the "sheik" was also intercepted. The answer was: "The sheik is well." That "sheik" is **allegedly** Bin Laden.' ["Życie Warszawy", 10.12.2001]

Thus, it turns out that the meaning difference between *jakoby* and *rzekomo* does not primarily consist in the degree of expressed doubt (cf. also Stępień 2010: 53f.), but rather in a further component which is a sort of origo-exclusiveness or distance (Diewald 1991; Diewald and Smirnova 2010) between an origo (the judging agent, usually the actual speaker) and the described situation. This situation is either inaccessible for a judgment claiming factuality (due to temporal or spatial barriers, or for social regulations; ex. 60–61), or it is contextually marked as not based on facts. The speaker refrains from trying to convince the addressee because of lack of accessibility or because skeptical stance is already superseded by the context. This sense expressing distance – paraphrased by Socka (2015) as 'I cannot access the situation about which it is said: P' – is a part of the meaning of *rzekomo*, while *jakoby* is unmarked in this respect. As a consequence, *jakoby* is preferred in polemic, persuasive discourse in which the speaker not only doubts the reported original utterance but also con-

veys their own opinion and tries to convince the addressee. It can often be found, e.g., in tabloids, in letters to the editor (ex. 62) or in parliamentary debates, in inquiries, answers, and corrections (ex. 63). Typically, the original utterance is reported and subsequently fought by means of arguments. Furthermore, as observed by Wiemer (2006: 40), "[q]uite often *jakoby* is used as a means of letting the hearer/reader know that the metaspeaker is seeing through the intentions of the original speaker(s) (…). This probably explains the frequent ironic undertone of utterances containing *jakoby*". Compare

(62) *Czy to źle, że naszą postawą pokazujemy, iż nie chcemy być marionetką w rękach możnych tego świata? […] najpierw dostaliśmy zielone światło, a potem decyzjami fitosanitarnymi próbowano nam zablokować wejście na wspólny rynek.*

Nagle	*nasz-e*	*świni-e*	*zapad-ł-y*
suddenly	our-NOM.PL.NVIR	pig[F]-NOM.PL.NVIR	fall_ill[PFV]-PST-PL.NVIR

jakoby	*na*	*opryszczk-ę,*
reputedly	on	herpes[F]-ACC.SG

a owoce miękkie na jakąś inną cholerę.

'Is it bad that with our conduct we show that we don't want to be a puppet in hands of the high and mighty of this world? […] at first, we got the green light and then there were attempts via phytosanitary decisions to block our entering the common market. Suddenly our pigs **reputedly** <u>fell</u> to herpes and our soft fruits contracted another cholera.'

["Słowo Polskie Gazeta Wrocławska", 29.04.2004]

(63) *[…] jeszcze jedna kwestia natury ogólnej, […] tj. częsty zarzut, […] że*

ustaw-a	***jakoby***	*mia-ł-a-by*	*zawiera-ć*
bill[F]-NOM.SG	reputedly	AUX-PST-SG.F-SBJV	contain[IPFV]-INF

taki-e	*rozwiązani-a,*
such-ACC.PL.N	solution[N]-ACC.PL

które nie stwarzają pola do tego, ażeby wprowadzić po wejściu Polski do Unii Europejskiej stawki konkurencyjne dla polskich przedsiębiorców. Nie podzielam takiego stanowiska, wręcz przeciwnie, uważam, że ta ustawa zawiera rozwiązania korzystne dla polskich przedsiębiorców.

'One more general matter which is a frequent objection: that the bill **reputedly** contains solutions which do not leave scope for introducing competitive rates for Polish business after Poland joins the European Union. I don't share this view; on the contrary, in my opinion this bill contains solutions favorable to Polish entrepreneurs.'

[Debate in Sejm 23.01.2004]

In summarizing these observations, one could say that all four ALLEGEDLY-units (*podobno*, *ponoć*, *jakoby*, *rzekomo*) can be assigned the same epistemic component: 'I think that P can be not true'. However, in the case of *podobno* and *ponoć* this component needs to be triggered by an appropriate context, while it is an inherent feature of *rzekomo* and *jakoby* by default, independently of the context. Nevertheless, an appropriate context can cancel or reinforce this epistemic component.

Effectively, for any of these four units, epistemic overtones can be suppressed; they are defeatable and arise only by default on the basis of general communicative mechanisms. In terms of Neo-Gricean pragmatics, the epistemic component of doubt can be characterized as a Generalized Conversational Implicature (GCI). GCIs belong to "a level of **systematic pragmatic inference** not based on direct computations about speaker-intentions but on **general expectations about how language is normally used**" (Levinson 2000: 20; emphasis added). Thus, regardless of other subtle differences among the four ALLEGEDLY-units, their epistemic value largely arises from the paradigmatic contrast with utterances that are not modified by reportive markers. Since reportive marking is not obligatory in Polish – and can thus hardly be predicted – adding a reportive marker to some proposition (*rep P*) quite easily evokes the inference that the speaker wants to say something more. Since the speaker makes reference to another source and has not themselves experienced the situation about which somebody else has said *P*, the speaker might not be entirely sure that *P* is true. For a systematic analysis and line of argumentation cf. Wiemer and Socka (2017a–b).

This analysis somehow correlates with its distributional properties. Thus, *jakoby* shows its highest frequency in parliamentary debates,[15] where it often appears in subordinate clauses (especially in *że*-complement clauses reporting the information under discussion; see ex. 63). Usually, the original speaker is explicitly mentioned (or inferable via metonymy) or even addressed directly. Furthermore, more often than *rzekomo* and *podobno*, *jakoby* occurs post-verbally (not necessarily in direct adjacency, with syntactic scope over the clause; see ex. 62) or to the adjective (see ex. 64), so that in spoken language, the verb or adjective are prosodically highlighted:[16]

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15 Cf. the comparison of six text types (literary fiction, non-fiction, weekly press, daily press, conversation and parliamentary debates) in Socka (2015).

16 Note that these different linear positions do not change *jakoby*'s semantic scope, which embraces an entire proposition (either explicitly or, as with the adjective, implicitly). For details cf. Wiemer (2015b: 228f.; Boye 2010: 292, 2018).

(64)   *Teraz*   *ma-ją*   *się*   *martwi-ć*
        now   AUX.PRS-3PL   RM   worry[IPFV]-INF
        nadmiern-ą   **jakoby**   *sił-ą*   *złot-ego*.
        excessive-INS.SG.F   reputedly   power[F]-INS.SG   zloty[N]-GEN.SG
        'Now they have to be concerned with the **allegedly** excessive power of
        the zloty.'   ["Dziennik Polski", 5.07.2002]

In turn, *rzekomo* often occurs in parenthetical phrases, relative clauses, participial constructions, or with adjectival attributes, which typically contain additional information that is not up for debate. The original speaker often remains unknown; sometimes general world knowledge or common opinion is reported. The particle occurs most often in non-fictional literature and in the press, especially in texts about crimes, their investigation, or about court trials.

Podobno is the most frequent Polish hearsay particle by far. Its most typical register is everyday conversation. More often than the other items discussed in this section *podobno* also occurs with verbatim citations (cf. ex. 66 below), and it is usually encountered in main clauses. The identity of the original speaker is often not relevant and hence not specified.

The same is basically true with respect to *ponoć*, which belongs to a rather official register. This is probably why it is more likely to be used in subordinated clauses and in marked linear positions, i.e. in persuasive contexts (Socka 2015: 124). The authors of SGPP (2014: 106f.) claim there is a context-independent difference in meaning. In their view, *ponoć*, contrary to *podobno*, does not imply the speaker's agnostic epistemic stance ('I don't know whether P or non-P'), and this is why, in their opinion, *ponoć* cannot be replaced by *podobno* in contexts in which a reported assertion is rejected by the metaspeaker (see ex. 65). However, in the NKJP, such records for *ponoć* as well as for *podobno* (ex. 66) are comparatively frequent, or rather comparatively scarce. For, though *ponoć* seems to have a slightly higher affinity to contexts in which the respective proposition is rejected by the current speaker,[17] the difference cannot be treated as statistically significant.

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17 Searching in the full NKJP for *nieprawd** 'falseness' or *bzdur** 'nonsense' within a distance of at most nine words in each case yielded nine hits in undoubtedly falsifying contexts. However, the overall frequency of *podobno* is much higher than that of *ponoć*: the entire NKJP contains 84,699 tokens of *podobno* and 38,163 tokens of *ponoć*. In other words: out of 10,000 occurrences, we encounter 2.36 occurrences of *ponoć* in undoubtedly falsifying contexts, while in case of *podobno* there are only 1.06 such occurrences (access on 2.12.2015).

(65) *Śmiałem się z tego, bo niektórzy wpierają nam nawet, że*
      ponoć (*podobno)   sprzedaj-emy   dom.
      allegedly   sell[IPFV]-PRS.1PL house[M]-(ACC.SG)
      To bzdura.
      'I laughed at this, since some people even argue us into believing that we
      are reportedly {**PONOĆ/*PODOBNO**} selling our house. <u>This is nonsense</u>.'
                                          [cited in SGPP 2014: 107; *podobno* is their judgment]

(66) *– Teraz zabrano mi dzieci.*
      Podobno   *je*   *bi-ł-em,*
      allegedly   3NVIR.PL.ACC   beat[IPFV]-PST-1SG.M
      a <u>to nieprawda</u>. Proszę spytać żony – mówi.
      '"Now my children have been taken away. I **reportedly** beat them, and
      <u>that's not true</u>. Ask my wife", he says.'
                                          ["Polska Głos Wielkopolski", 21.12.2005]

There is only one reportive adjective in Polish, which is *rzekomy*. It is etymologi-
cally related to the particle *rzekomo*, but slightly less frequent.[18] The distribution
over discourse types equals that of *rzekomo*, but the adjective is practically not
used in everyday conversation.

   Semantically, *rzekomy* seems to share the skeptical epistemic overtone (as a
GCI) with *rzekomo* and *jakoby*, but it does not involve the distance component.
Thus, it is equally used in order to refrain from making a judgment about the
veracity of an accusation (67) and in highly argumentative or persuasive con-
texts, which are characteristic of *jakoby* (68):

(67) *Warszawa. 25-letni Paweł N., pseudonim "Mrówa", został wczoraj*
      wieczorem postrzelony niedaleko swojego domu w podwarszawskich
      Ząbkach.
      Ofiar-a   *jest*   *syn-em*   **rzekom-ego**
      victim[F]-NOM.SG   be.PRS.3SG   son-INS   alleged-GEN.SG.M
      szef-a   *gang-u*   *wołomińskiego Henryka N. – "Dziada".*
      boss[M]-GEN.SG   gang-GEN
      'Warsaw. Yesterday evening Paweł N., aged 25, pseudonym "Ant", was
      shot not far from his house in Ząbki at the edge of Warsaw. The victim is

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18 In the six subcorpora of the balanced NKJP taken into account (typ_lit, typ_fakt,
typ_konwers, typ_qmow, kanał_prasa_dziennik, kanał_prasa_tygodnik) the average frequency
of *rzekomo* amounts to 14.01, while that of *rzekomy* (in all its inflected forms) it is 13.89 records
per million items (access on 25.10.2018).

the son of the **alleged** boss of the gang from Wołomin, Henryk N., called "grandpa".'   ["Metro", 13.03.2001]

(68) *(...) Argumentem przemawiającym za przyjęciem rozwiązania*

*mia-ł-o-by   by-ć   bowiem **rzekom-e**   ryzyk-o*
AUX-PST-N-SBJV be-INF   because alleged-NOM.SG.N risk[N]-NOM.SG
podwyższenia kosztów finansowania długu państwa. Argument ten jest całkowicie chybiony, gdyż ...

'(...) For an argument in favour of this solution was supposed to be the **alleged** risk of an increase in costs for financing the debts of the state. This argument entirely misses the point since...'

[Debate in Sejm, 08.07.2003]

Rzekomy does not require specification of the (written or spoken) utterance's source, but it can refer to nonverbal behavior interpreted like a verbal message; compare:[19]

(69) *Stary wszedł do domu, zdjął płaszcz w przedpokoju i za pomocą żenujących środków aktorskich jął dawać do zrozumienia, że jest głodny jak wilk.*

*Widok   ojc-a   z   **rzekom-ą***
sight[M]-NOM.SG father[M]-GEN.SG with   alleged-INS.SG.F
żałości-ą   głaszcząc-ego   się   po   brzuch-u,
plaintiveness[F]-INS.SG stroking-ACC.SG.M RM   over belly[M]-LOC.SG
rozpaczliwie mlaszczącego i mrugającego do mnie porozumiewawczo, bym poparł jego starania, to mamusia nasmaży nam naleśników – był nie do zniesienia.

'The old man went into the house, took off his coat in the hall and, with the aid of an embarrassing actor's play began to let us know that he is hungry like a wolf. The sight of my father as he was stroking himself on the belly with **alleged** plaintiveness, smacking his lips desperately and winking at me knowingly in order to support his efforts, so that mum would fry us some pancakes – it was unbearable.'

[J. Pilch, "Moje pierwsze samobójstwo", 2006]

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19 In the terminology of life sciences, *rzekomy* acquires the meaning 'pseudo', e.g. *guz rzekomy* 'pseudotumor', i.e. "an enlargement that resembles a tumor, resulting from inflammation, fluid accumulation, or other causes" (http://medical-dictionary.thefreedictionary.com/ pseudotumor; access on 21.02.2014).

11.3.2 Reportive use and interpretive semantics: *mieć* 'have > should > said to'

As an autonomous ('lexical') verb Pol. *mieć* 'have' marks possessive relations. As a modal auxiliary, Pol. *mieć* emerges as the closest equivalent of Germ. *sollen*, insofar as both units are used in two distinct domains whose co-occurrence in the meaning potential of modal auxiliaries is encountered rather infrequently, namely: weak obligation (= deontic necessity, 'should, ought to') and reportivity ('be supposed/said to'). Other modal (dispositional, circumstantial, epistemic) or postmodal functions are either absent or subsidiary.[20] We thus need to explain how this specific deontic – reportive meaning alternation evolved, in particular: whether the deontic meaning expanded into reportive evidentiality directly or through intermediate stages.

Weiss (ms., 2009: 136f.) explains this expansion as a conventionalized switch of figure and ground between subparts of a complex communicative constellation that comprises at least three participants who partially correspond to different roles; see Figure 1 (slightly modified from Weiss 2009: 136):[21]

(a)	Sp	H	Adr		(b)	Sp	H	Adr
	●=====●---------●			or		●---------●=====●		
	=Med					=Med		

Sp	speaker of original speech act (addressed either directly to H, or to another person)
H	addressee of original speech act (can be identical with speaker of actual speech act)
Med	mediator
Adr	addressee of actual speech act
====	foregrounded component (communicative event)
-------	backgrounded (implied) component

Figure 1: Communicative complex of volitional and reported speech act of Pol. *mieć* 'have' + INF.

The constellation consists of at least two speech events, an actually realized and a virtual (reporting or anticipated) one. The virtual speech act may have the illocutionary force of a directive (command, request, suggestion) or of an assertion (statement about facts or epistemic assessment, prediction). The speakers of both acts (= Sp and H) may be the same person, in other instances the addressee of the second act (= Adr) may be coreferential with the intended ad-

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20 For a comprehensive picture of Pol. *mieć* cf. Hansen (2001: 133–140) and Holvoet (2012).

21 Weiss' original analysis (written in the late 1980s) has never been published, but Hansen (2001: 134–140) and Holvoet (2012) rely on it, and Hansen (2009: 177–179) offers a summary.

dressee of the first act (= H).[22] Figure 1 is an idealization inasmuch as between the original speaker (= Sp) and the speaker(s) of the actual speech event (= H) there may occur a number of intermediate speech acts, and the identity of the original speaker(s) may get lost or become unimportant. This circumstance creates the effect of anonymity held to be characteristic for reportive markers proper, which has often been mentioned (cf. Weiss 2009: 136, 138, 147). Irrespective of the number of intermediate "transmissions" between Sp's and H's, the crucial meaning switch depends on which of the two halves of the idealized complex event in Figure 1 gets foregrounded. In a sense, H serves as pivot between both events and thus becomes kind of mediator (Med). Reportive meaning arises when the right half of Figure 1 becomes salient. Let us illustrate this with simple examples.

In a usual command, a speaker (Sp) issues some act of will towards a hearer (H), and no mediation by a third person is required; see (70a). However, a mediator (Med) may transmit this directive speech act to a third party by echoing it. This is the preferred reading of (70b). The speaker may even refer to their own command uttered before (i.e. become their own mediator), irrespective of the grammatical person in the pronoun (compare *jej* 'her.DAT' vs. *mi* 'me.DAT'). If the speaker themselves is the grammatical subject of the clause, as in (70c), they cannot be a mediator of their own utterance (command); however, irrespective of that, by using *mieć* the speaker refers back to a previous utterance.[23]

(70) a. *Przynieś   mi   wazon!*
          bring[PFV]-(IMP.SG)   1SG.DAT   vase-(ACC.SG)
          'Bring me a vase!'

      b. *Ma-sz   jej/mi   przynieś-ć   wazon.*
          have-PRS.2SG   her.DAT/1SG.DAT   bring[PFV]-INF   ase-(ACC.SG)
          'You have to bring her/me a vase.'

      c. *Ma-m   ci/jej   przynieś-ć   wazon.*
          have-PRS.1SG   2SG.DAT/her.DAT   bring[PFV]-INF   vase-(ACC.SG)
          'I have to bring you / her a vase.' (⊃ 'sb. told me that I should bring the vase')

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22 Cf. also Jędrzejowski (2015: 127–128).
23 This mediating effect can be tested easily: it suffices to replace *mieć* by another auxiliary that can be used deontically, and the mediating effect disappears. Neither *musieć*, nor *powinien* evoke reference to a previously issued command (or any other speech act), they may at best imply it by virtue of particularized implicature; see Section 11.2.2.

Now, the directive force may be pushed into the background. It vanishes altogether if the speech act referred to is no longer understood as the verbalization of somebody's will, but just as an assertion about something that already happened, is actually happening, or scheduled to happen shortly; see (71a–b). The auxiliary *mieć* is also freely used in situations which cannot depend on anybody's will, but can be uttered only as assumptions or predictions about events that might have happened or will happen (ex. 71c), while in this regard (71b) is potentially ambiguous (the original speech act may be directive or code an assertion):

(71) a.   *Właśnie*   **ma**   *by-ć*   *w*   *Paryż-u.*
         right_now   have.PRS-(3SG)   be-INF   in   Paris-LOC
         'Right now **he is supposed/said** to be in Paris.'

      b.   *Komisj-a*   **ma**   *przyby-ć*   *o jedenastej*
         commission[F]-NOM.SG   have.PRS-(3SG)   arrive[PFV]-INF   at eleven
         'The commission **has to/is said** to arrive at eleven o'clock.'

      c.   *Jutro*   **ma**   *pada-ć.*
         tomorrow   have.PRS-(3SG)   fall[IPFV]-INF
         'Tomorrow **it is said** to rain./**People say** that tomorrow it will rain.'

Even if the reportive interpretation is foregrounded, the deontic component remains implied, and vice versa, unless the situation cannot be controlled, so that a merely reportive interpretation is conserved (ex. 71c). The switch from mediated volition-oriented toward assumption-oriented speech acts implies that in many instances the auxiliary construction *mieć+infinitive* does not *per se* distinguish between these two possible orientations, and that in such cases only the context (or background knowledge) can disambiguate. Compare (71a–b), but also the following tokens from a newspaper article:

(72)   *W sobotę wieczorem dziennikarze pierwszego programu niemieckiej*
       telewizji publicznej ARD i francuskiego kanału France Deux przedstawili
       szczegółowy raport na ten temat. Wynika z niego, że ówczesny prezydent
       Francji Francois Mitterand osobiście nakazał państwowemu wówczas
       koncernowi Elf Aquitaine transfer do Niemiec łapówek w wysokości 100
       milionów marek. Duża część tych pieniędzy – 30 milionów marek –
       mia-ł-a   *by-ć*   *przeznaczon-a*   *na*   *potrzeb-y*
       AUX-PST-3SG.F   be-INF   assigned-NOM.SG.F   on   need[F]-ACC.PL
       kampanii wyborczej Helmuta Kohla. Kwota ta została przekazana przez
       zagraniczne banki (najprawdopodobniej w Szwajcarii i Liechtensteinie). (...)
       Tak-ą   *wersj-ę*   *wydarzeń*   **mia-ł**
       such-ACC.SG.F   version[F]-ACC.SG   event[N]-(GEN.PL)   AUX-PST-(3SG.M)

> ***potwierdzi-ć***   *dziennikarz-om*
> confirm[PFV]-INF   reporter[M]-DAT.PL
>
> *ARD i France Deux anonimowy "wysoki urzędnik z najbliższego otoczenia*
> *prezydenta Mitteranda". (...) Także z Wielkiej Brytanii napływają*
> *sensacyjne informacje. Według tygodnika "Sunday Times" handlarz bronią*
> *Karlheinz Schreiber, od którego rozpoczęła się afera CDU,*
>
> ***mia-ł***   ***przekaza-ć***   *na*   *przełomi-e*   *lat*
> AUX-PST-(3SG.M)   convey[PFV]-INF   on   turn[M]-LOC.SG   year-(GEN.PL)
>
> *80. i 90.*   *ponad*   *76 milion-ów*   *marek*
>   more_than   76 million[M]-GEN.PL   mark[F]-(GEN.PL)
>
> *"na potrzeby konserwatywnych partii w Niemczech". Także te pieniądze*
> *nie zostały nigdy zaksięgowane na partyjnych kontach. Sprawę bada bryty-*
> *jski wymiar sprawiedliwości.*
>
> 'On Saturday night, the reporters of the first channel of the German pub-
> lic TV station ARD and of the French channel France Deux presented a
> detailed report on this issue. According to the report, the then President
> of France Francois Mitterand personally ordered Elf Aquitaine, a state-
> owned concern at that time, to funnel to Germany 100 million deutsche
> marks in bribes. A substantial portion of this money, i.e. 30 million
> marks, **was to be transferred/is said to have been intended** for
> Helmut Kohl's election campaign. This amount was transferred through
> foreign banks (most likely based in Switzerland and Liechtenstein). (...)
> This version of events **is said to have been confirmed** to ARD's and
> France Deux's reporters by an anonymous "senior official from President
> Mitterand's inner circle". (...) Stunning news is also coming in from the
> UK. According to "The Sunday Times" weekly, in the late 1980s and early
> 1990s the arms trafficker Karlheinz Schreiber, with whom the CDU scan-
> dal has started, **supposedly transferred** over 76 million marks "intend-
> ed for the needs of conservative parties in Germany." This money too has
> never been posted to the accounts of those parties. The scandal is being
> investigated by the British judicial authorities.'
>
> [Ł. Perzyna, *Prezent od przyjaciela*, "Życie" 24/01]

Holvoet (2005, 2011, 2012) and Holvoet and Konickaja (2011) explain the switch
from a directive to a reportive foreground on the basis of interpretive use, and
thus on a larger background of utterance types. Interpretive use is characteristic
for utterances that are used not as descriptions, i.e. in order to "represent some
state of affairs in virtue of its propositional form being true of that state of af-
fairs", but as interpretations of previous utterances, behavior or thoughts
(Sperber and Wilson 1986: 228f.). A subtype of interpretive expressions are

quotatives, more particularly, echo-devices (cf. Sperber and Wilson 1986: 238). Under certain discourse conditions, the use of *mieć* comes close to this function. Compare (73a), cited from Weiss (2009: 137), which is based on an assertion, and (73b) with a preceding directive speech act:

(73) a.   A: *Bartek przecież jest chory*.

B: *On* **ma** *by-ć* *chor-y?*
3SG.M.NOM   AUX.PRS-(3SG)   be-INF   ill-NOM.SG.M

Nigdy w życiu!

'A: You know that Bartek is ill. B: He and ill? [lit. 'He **has to** be ill?']
Never (in all life)!'

b.   A: *Siedź tu spokojnie*.

B: *Ja* **ma-m** *tu* *siedzie-ć?*
1SG.NOM   AUX.PRS-1SG   here   sit[IPFV]-INF

Nigdy w życiu!

'A: Sit here quietly. B: Me and sit here [lit. 'I **have to** sit here?'] Never (in all life)!'

By interpretive deontics Holvoet understands "expressions referring to utterances based on deontic expressions" and "conveying the fact that the speaker has a certain (positive or negative) attitude to the acts of volition underlying them" (Holvoet and Konickaja 2011: 5). This becomes evident, for instance, in deontic requests like the following ones (ex. 74a quoted from Holvoet 2012: 132, ex. 74b exhibits its modification):

(74) a.   *Co* **ma-m** *mu* *powiedzie-ć?*
what.ACC   AUX.PRS-1SG   3SG.M.DAT   say[PFV]-INF
'What should [lit. '**do I have** to'] I tell him?'

b.   *Czy* **ma-m** *mu* *powiedzie-ć* *o* *t-ym?*
Q   AUX.PRS-1SG   3SG.M.DAT   say[PFV]-INF   about   DEM-LOC.SG.N
'**Do I have to/Should I** tell him about this?'

As mentioned by Hansen (2009: 178, based on Weiss, ms.), *mieć* can be used in direct requests as well. For instance, the following utterance could have been issued by a mother to her children:

(75) *Ani-u,* *ty* **ma-sz** *teraz* *posprząta-ć* *pokój,*
PN-VOC   2SG.NOM   AUX.PRS-2SG   now   tidy_up[PFV]-INF   room[M]-ACC.SG

a *ty,* *Piotrusi-u,*
and   2SG.NOM   PN-VOC

ma-sz *odrobi-ć* *lekcj-e.*
AUX.PRS-2SG   work_out[PFV]-INF   lesson[F]-ACC.PL

'Ania, you now **will/have to** tidy up your room, and you, Piotruś, **will/have to** do your homework.'

Actually, this use in direct requests is very old, as it is already attested in the 15th century, e.g. in the Ten Commandments (Hansen 1999: 126).[24] However, in contemporary Polish, such usage usually implies that a directive speech act has preceded (e.g., 'you have to tidy up your room, because I requested you to do so').

We can assume that there are several transitional stages reaching from the strictly reportive use and the deontic echoic use. This has been explicated in a semantic map[25] by Holvoet (2012, and other of his articles referred to above). Examples (76)–(78) are adduced from Holvoet (2012: 134f.), with a slight adaptation in (77) and extended interpretations:

(76) *Ja*   ***mia-ł-em***   *pomaga-ć*   *złodziej-owi?*
     1SG.NOM   have-PST-1SG.M   help[IPFV]-INF   thief-DAT
     '**Am** I **supposed** to have helped the thief?'
     → reference to assumption of another person:
     interpretive, only indirectly deontic

(77) *Polityc-y*   ***maj-ą***   *spełnia-ć*   *wol-ę*
     politician[M]-NOM.PL.VIR   have.PRS-3PL   realize[IPFV]-INF   will-ACC
     narod-u.
     people-GEN
     'Politicians **are expected** to realize the will of people.'
     → (i) reference to (uttered) obligation ('politicians have to/ought to realize...'): deontic, but only marginally interpretive (⊃ reportive) ∨ (ii) reference to assertion ('politicians realize/have been realising ...'): reportive (deontic/volitional component backgrounded)

(78) *W* *Afryce*   ***ma/mia-ł-o***   ***by-ć***   *bardzo*   *gorąc-o.*
     in   Africa-LOC   have.PRS-(3SG)/have-PST-N   be-INF   very   hot-ADV
     '**It's said to be/to have been** very hot in Africa.'

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24 Furthermore, there is a quite specific type of use, termed 'purpose of artefact' by Weiss (ms.) and Hansen (2009: 178), as in this sentence (from the introduction to a linguistic paper): *Niniejsza praca **ma dać** przegląd wszystkich możliwych znaczeń konstrukcji* mieć + *infinitiwus* 'This work is considered to give a survey of all possible meanings of the construction *mieć* + infinitive'.

25 Holvoet's argument is based mainly on the contemporary distribution of *mieć* (as an auxiliary) over speech-act types and grammatical contexts. For diachronic facts see Section 11.6.

$\rightarrow$ no reference to volitional speech act possible (since the embedded state of affairs cannot be controlled by a sentient being): only reportive reading

Following Holvoet, Pol. *mieć* enters the scene of interpretive semantics with deontic requests, and its way into reportive usage (in its proper sense) must have led either via the neutral rendering of other people's expectations, i.e. a weakly deontic echoic use (as in ex. 77), or via the negative evaluation of people's assumptions, i.e. recourse to epistemically modalized utterances (as in ex. 76); cf. Holvoet and Konickaja (2011: 16f.), Holvoet (2012: 132–137). If the latter option turns out to be correct, the way from deontic to reportive use was not a direct one, but it involved epistemic assessment. This stands as a hypothesis to be tested against more reliable material reflecting earlier stages of Polish. Anyway, it cannot be rejected that the origin of the reportive function of *mieć* has to be searched for in interpretive (or echoic) deontics and the tip effect between the two "halves" of Figure 1. Beyond that, even if the road of *mieć* into reportivity was mediated by the echoic use of epistemic utterances, it would still differ from the path on which sentence adverbs, complementizers and other "function words" acquire reportive function and which is so much more widespread than the functional evolution of the auxiliary *mieć* (see Section 11.6).

In summary, on the one hand, beyond the fact that *mieć* always implies reference to some speech act and its content, it <u>can</u> include (and focus on) a volitional (i.e. non-declarative) illocution. However, this happens only when *mieć* has the function of an interpretive <u>deontic</u>. In contrast, when *mieć* refers to other people's assumptions or assertions, this meaning potential, as it were, evaporates, what remains is the reportive function. The consequences of this tip effect, mentioned above, have allowed this use of the construction *mieć*+INF to acquire reportive function void of interpretive semantics. On the other hand, what differentiates *mieć*+infinitive from quotatives (or echo devices) is the fact that it is practically never used for the interpretation of semiotic substitutes of speech (acts), contrary to Pol. *jakoby* and *niby* (see Section 11.5.2), Russian 'xenomarkers' (Wiemer and Letuchiy, this volume: Section 10.6.2), Lith. *esą*, *atseit* (Wiemer 2007: 184, 2010b: 281; Usonienė and Ruskan, this volume), or Engl. *like*, *s/he goes* (Marín Arrese, Carretero and Usonienė, this volume).[26]

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26 For some partial overview of the marking of semiotically interpreted behavior and quotatives in Slavic cf. Wiemer and Kampf (2013: 154–159). For an informed survey and a corpus-based study on the employment of quotative devices in Polish cf. Guz (2019), also Guz (2018a–b).

In addition, some remarks concerning tense and behavior with negation are necessary. As for tense, *mieć* is freely used in past tense forms; see already (76), where *miałem* is used interpretively. However, past tense forms may, like present tense forms, be void of interpretive reading, and the interpretation may oscillate between deontic and reportive foreground; compare two examples:

(79) *W czwartek Chińczyk Wang Zhi Zhi jako pierwszy Azjata w NBA*
 mia-ł *zadebiutowa-ć* *w barw-ach* *Dallas Mavericks.*
 AUX-PST-(3SG.M) give_debut[PFV]-INF in color[F]-LOC.PL PN
 Mierzący 216 cm Wang został wybrany już w 1999 r., ale musiał pozostać w Chinach, gdyż nie uzyskał od wojskowego klubu, w którym występował, pozwolenia na grę w USA.
 'On Thursday, as the first person from Asia, the Chinese Wang Zhi Zhi **was said/scheduled** to give his debut in the colors of Dallas Mavericks. Of 216 cm height, Wang was elected already in 1999, but he had to stay in China because he hadn't got a permission to play in the USA from the army club in which he played.' ["Metropol", 6.04.2001]

(80) *27 października wieczorem do jednego z barów przy Dworcu Głównym weszła młoda dziewczyna z bagażami i maleńkim dzieckiem na ręku. Było jej ciężko. Poprosiła o pomoc przypadkowo spotkaną kobietę. Obie poszły na peron.*
 Matk-a **mia-ł-a** *sprawdzi-ć,*
 mother[F]-NOM.SG AUX-PST-3SG.F check[PFV]-INF
 o której godzinie odjeżdża jej pociąg. Zostawiła zawiniętego w kocyk synka, dwie reklamówki i torebkę. Już nie wróciła.
 'On October, 27, in the evening a young girl with luggage and a tiny child in her hands came into one of the bars close to the Main Station. She had a hard time. She asked for help an accidentally met woman. Both went to the platform. The mother **had to/was said to** [i.e. said about herself] check at which time her train was leaving. She left the little son wrapped into a blanket, two plastic bags and a handbag. She didn't return.'
 ["Gazeta Wrocławska", 1.2.1999]

This stands in stark contrast to the otherwise close functional resemblance to German auxiliary *sollen*. In modern German, its past tense form (*sollte*) has almost lost its past tense function and, thereby, its potential as a reportive marker (see Section 11.6.4); instead, it now is practically restricted to a deontic mean-

ing.[27] What we observe for the German case is a split of the forms of originally one verbal lexeme into two separate lexemes depending on two tense paradigms (Weiss 2009: 134–139). Possibly, a factor favoring this split might have been the fact that German allows the infinitive in the scope of auxiliaries to distinguish simultaneous vs. anterior reference. Polish does not have a possibility to differentiate this time reference in the infinitive; instead, the reportive (as well as interpretive) functions of *mieć*+infinitive make this difference by the tense choice on *mieć* itself. As it were, in Polish and German, the scopes of temporal reference and of indication to verbal source of knowledge are inversely distributed over the verb phrase (see 82);[28] compare:

(81) German *Es **soll** heute noch regn-en.*
        it AUX.PRS.3SG today still rain-INF
      Polish *Dzisiaj **ma** jeszcze pada-ć.*
        today AUX.PRS-(3SG) still fall[IPFV]-INF
      '**Reportedly**, it will rain today.'

(82) German *Es **soll** gestern **ge-regn-et** **hab-en**.*
        it AUX.PRS.3SG yesterday PTCP-rain-PTCP [29] have-INF
      Polish *Wczoraj **mia-ł-o** pada-ć.*
        yesterday have-PST-N fall[IPFV]-INF
      '**Reportedly**, yesterday it **rained**.'

As concerns negation, we should not expect *mieć* in reportive function to show any sensible use of external negation, and indeed such uses are unattested. However, Weiss (ms., p. 18) claims that even internal negation is unimaginable. In fact, utterances like:

(83) ? **Mia-ł-eś** *się nie zgłosi-ć do dziekan-a.*
        have-PST-2SG.M RM NEG report[PFV]-INF to dean-GEN
        intended: '**Reportedly**, you haven't reported to the dean.'

---

27 Its meaning can be paraphrased as 'The speaker thinks it would be better if X did p', i.e. the deontic source resides in the speaker, what makes this unit close to Pol. *powinien* (see Section 11.2.2). For *sollte* certain interpretive uses do not seem to be excluded, but a further examination of this question would go beyond the scope of this article. For a brief comparison between Pol. *mieć* and Germ. *sollen/sollte* cf. Weiss (1987, 2009: 136–139); Wiemer (2010a: 81–83).

28 Jędrzejowski (2012: 434–-445) gives a more detailed comparison in terms of Relevance Theory.

29 *ge-* and *-(e)t* jointly make up a circumfix.

with the auxiliary in the past tense, sound very unnatural (compare this to Germ. *Du sollst dich nicht beim Dekan gemeldet haben*, which sounds natural). Present tense *mieć* with internal negation as in:

(84) ***Masz**   *się*   *nie*   *zgłosi-ć*   *do*   *dziekan-a.*
      have.PRS-2SG   RM   NEG   report[PFV]-INF   to   dean-GEN
      ?? 'You **are said** to not report to the dean.'

results in altogether unintelligible utterances, at least with the perfective infinitive.[30] Instead, here some of the sentence adverbs discussed in Section 11.3.1 would be appropriate.[31] In this respect, as a reportive auxiliary *mieć* is less grammaticalized than its German counterpart *sollen*. Note however that negation of *mieć*+infinitive in deontic use, too, always was internal from its earliest attestations onwards, even though negation normally immediately preceded the auxiliary (see Section 11.6.4).

11.3.3 Adpositional phrases

In Polish, this word class includes the preposition *według* (with its obsolete and stylistically marked variant *wedle*) and the secondary prepositions *zdaniem* and *zgodnie z* (Milewska 2003: 106f.). The expression *zdaniem* is a lexicalized instrumental case form of *zdanie* 'opinion', which takes an argument in the genitive, as does the preposition *według* 'according to'. *Zgodnie z* consists of the adverb *zgodnie* and the preposition *z* taking an argument in the instrumental. Syntactically, the prepositions are heads of the NPs in their scope, rendering PPs. PPs with reportive meaning always function as adverbials with propositional scope (Wiemer 2010a: 107). From the semantic viewpoint, the reportive PPs do not by themselves carry any epistemic overtones.

The NPs in the scope of these expressions name the source of information and are subject to various semantic restrictions. *Zdaniem* is restricted to a hearsay function, whereas *według* can also be used as a unit marking the basis of measurement or judgment. The hearsay function can most reasonably be understood as a meaning specification of this latter function. Correspondingly, arguments of *według* and *zdaniem* can denote a person, or a group of people (institution etc.)

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30 The same utterance with the imperfective infinitive (*Masz się nie zgłaszać* 'You don't have to report') would be acceptable, but it would rather carry a foregrounded deontic meaning.

31 We thank Łukasz Jędrzejowski for consultation.

issuing speech acts (ex. 85). Moreover, *według* (but not *zdaniem*[32]) collocates freely with NPs denoting products or processes of speech acts (ex. 86), or even "products of intellectual work that become manifest not necessarily or predominantly in the form of texts" (Wiemer 2006: 33), see ex. (87):

(85) **według/zdaniem** *sądu, policji, komisji, zarządu, administracji, rządu, rady wydziału*
      '**according to/in the opinion of** the court, the police, the commission, the management, the administration, the government, the faculty's council';

(86) **według (*zdaniem)** *oświadczenia, uchwały, decyzji (sądu, komisji), informacji, opinii*
      '**according to (*in the opinion of)** the declaration, the resolution, the decision (of the court, of the commission), the information, the view (opinion)';

(87) **według (*zdaniem)** *wyników, sondażu, danych, badań, ustaleń*
      '**according to (*in the opinion of)** the results, the enquête, the data, the investigations, the assignations'.

Podług functioned similarly for several centuries, but in the second half of the 20th century it specialized in collocating with NPs that denote some kind of model or a basis of comparison (e.g. *podług modelu/przepisu/wzrostu* 'according to the model/recipe/height'; cf. Buttler 1981: 116; Krążyńska 2004: 153–178). In contemporary Polish it is rather obsolete.

Semantically close to *według* is *zgodnie z* 'in accordance with'. It can mark either the basis of measurement or judgment (e.g., *zgodnie z normami naszego społeczeństwa* 'in line with the norms of our society'), or refer to a product of speech (88a). However, it cannot be used in cases of an author < speech act-metonymy, i.e. it is hardly acceptable to co-occur with the name of the person who is the author of a text referred to, nor does it occur with personal pronouns (see 88b; cf. Milewska 2003: 166f.):

(88) a. **zgodnie z** *jego opinią, ze sprawozdaniem, z uchwałą, z żądaniami protestujących …*

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32 The more restricted collocability of *zdaniem* can readily be explained by the transparent semantics of the noun from which its instrumental case form has split off as a separate lexeme: *zdanie* 'opinion' is something that must be ascribed to a sentient being.

        '**in accordance with** his opinion, with the report, with the resolution, with the demonstrants' demands';

    b.   ****zgodnie z*** *autorem sprawozdania, z protestującymi, z nim ...*
        '**in accordance with** the author of the report, with the demonstrants, with him...'.

Według also happens to show some subtle restrictions. The products of speech acts denoted by the NPs in its scope must have an official and/or instructive character (ex. 89); it can hardly be a narrative text. Examples like (90) are very rare[33] (Wiemer 2006: 34):

(89)   ***Według pisma****, które otrzymaliśmy z resortu finansów, na podwyżki dostaniemy około 73 tysięcy złotych.*
        '**Following the letter** which we received from the financial department, we will get approx. 73 thousand zloty for pay rises.'

                                          ["Gazeta Wrocławska", 5.10.2002]

(90)   *Miałam wtedy zawsze przed oczami żelazną maskę, w jaką król Francji zakuł swego brata bliźniaka, **według powieści** Aleksandra Dumas.*
        'At that time I always had the iron mask before my eyes, into which the king of France had put his twin brother, **according to** Alexandre Dumas' **novel**.'

        [H. Grynberg, "Życie ideologiczne, osobiste, codzienne i artystyczne", 1998]

11.4 Indirect-indifferent evidentials

Only few markers alternate between inferential and reportive functions. In contemporary Polish, these are, basically, *zdaje się* and *wydaje się*. *Podobno* and *ponoć*, which are nowadays restricted to reportive evidentiality (see Section 11.3.1), were probably characterized by similar exchangeability at earlier stages, when they entered the reportive domain from the inferential one (see Section 11.6.1). What seems to unite these items is that their inferential use is (or previously was) strongly biased, or even restricted, to judgments based on perceptually accessible information ('circumstantials' in Squartini's 2008 terms). Furthermore, it is only from among these units that we find extensions into the

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33 Instead, the non-reportive use of the PP *według powieści X* 'according to the novel' in collocations like *film/spektakl według powieści X* 'film/(theatre) spectacle according to the novel' is very frequent.

domain of remembrance. We will discuss these first (Section 11.4.1) and then briefly turn to some rhetorical (or dialogical) function (Section 11.4.2).

11.4.1 Extensions into memory-based judgments

Zdaje się seems to be the only unit attested in contexts in which the judgment of the speaker is based on remembrance. This applies both to the impersonal 3SG.PRS-form of the verb with a clausal complement (see ex. 91) and to the particle-like use as in (92)–(93):

(91) – *Dużo księży wtedy studiowało?*
J.T.: ***Zdaj-e   się, że***
        seem[IPFV]-PRS.3SG RM   COMP
      był jeszcze jakiś jezuita na biologii czy fizyce, ale filozofię studiowałem
      tylko ja.
      '– Were many priests students at the time?
      J.T.:**I think** [≈ as far as I remember] there was also some Jesuit studying biology or physics, but I was the only onestudying philosophy.'
            [A. Michnik, J. Tischner, J. Żakowski, "Między panem a plebanem";
                                                quoted from Wiemer 2006: 56]

(92) *... Już dobrze nie pamiętam, ale*
      w cał-ej   histori-i   odegra-ł-y
      in entire-LOC.SG.F history[F]-LOC.SG play[PFV]-PST-PL.NVIR
      ***zdaj-e   się** też rol-ę   jaki-eś   czar-y...*
      seem[IPFV]-PRS.3SG RM   also role[F]-ACC.SG some-NOM charm[M]-NOM.PL
      '... I don't remember well, but in the whole history, **it seems**, an important role was played by some magic charms.'
                                [J. Kumaniecka, "Saga rodu Słonimskich", 2003]

(93) *PSYCHIATRA – Klasyczne. I połamał pan sobie coś?*
      BARTODZIEJ – Raz tylko.
      Nog-ę,   zdaj-e   się.
      leg[F]-ACC.SG   seem[IPFV]-PRS.3SG RM
      'Psychiatrist: – A classical case. And did you break yourself anything?
      Bartodziej: – Only once. My leg, **it seems**.'   [S. Mrożek, "Portret", 1987]

This observation is in parallel with the behavior of Russ. *kažetsja* (Wiemer and Letuchiy, this volume: Section 10.2.4). Among other things, this parallel corroborates the assumption that only markers indicating perception-based inferences

undergo this functional extension. This condition seems to be a necessary one, but it obviously is not sufficient, insofar as other units fulfilling this condition are not attested in the context of memory-based judgments.

11.4.2 Connections to other discourse functions

Zdaje się (both particle-like in parenthetical use and as an impersonal CTP) and *podobno* can be encountered "in questions when the metaspeaker wants to encourage his interlocutor to confirm a supposition which he is rather sure about (and which, notabene, might derive from hearsay)" (Wiemer 2006: 58, from where ex. 94 was taken):

(94) *W sądzie na Lesznie, przed drzwiami sali rozpraw, w której miał być ogłoszony wyrok, zebrał się – jak napisał Adam – "kwiat warszawskiej inteligencji".*
***Zdaje się** [*wydaje się], że*
seem[IPFV]-PRS.3SG RM   COMP
właśnie wtedy poznałeś Antoniego Słonimskiego?
'In the courthouse in Leszno, in front of the trial room where the verdict was about to be announced, the "flower of Warsaw intelligentsia" had gathered, as Adam wrote. **I think** that was the time when you met Antoni Słonimski, wasn't it?'
 [A. Michnik, J. Tischner, J. Żakowski, "Między panem a plebanem", 1995]

(95) *– Ty też kiedyś prowadziłeś interes*
*i,   **zdaje   się**, wyszed-ł-eś   na   t-ym*
and   seem[IPFV]-PRS.3SG   RM   go_out[PFV]-PST-2SG.M on   DEM-LOC.SG
jak Zabłocki na mydle. – Sto tysięcy dolarów pofrunęło!
'"You too used to run your own business at one time and, **it seems**, you took a bath on it."
"A hundred thousand dollars went down the drain!"'
                              [N. Terentjew, "Zwierzenia kontrolowane", 2004]

We make the same observation with respect to Russ. *kažetsja* (cf. Wiemer and Letuchiy, this volume). In general, the number of evidential markers befitting such contexts appears to be very small.

11.5   Other phenomena

This section is concerned with three rather special units. The first two of them, *słychać* and *niby*, show a somewhat special relation to evidentiality – more precisely: to reportivity. *Słychać* has a peculiar meaning range (Section 11.5.1), while niby is representative of a broader class of units connected to comparison marking (Section 11.5.2). The third unit, *jakoby*, is like *niby* inasmuch as its similar semantic provenance from comparison marking is concerned. Here, we will examine its use as a complementizer, in which the comparison meaning has become obsolete. Nevertheless, it betrays a tight connection to marking epistemic stance, and this in spite of the fact that it has been established as a complementizer heading finite clauses after CTPs coding, or related to, speech acts (Section 11.5.3).

11.5.1   *słychać*

In addition to *widać* (see Section 11.2.1.1), *słychać* is another unit whose close association with evidentiality was accompanied by a complete loss of inflected forms: *słychać* (like *widać*) is the petrified form of the infinitive of a verb denoting non-agentive auditory perception ('hear'). And just like *widać*, *słychać* implies a human subject of perception or judgment that cannot be expressed syntactically (in any of its usage types and functions); compare:

(96) **Słychać** *(*wszystk-im, *dla wszystk-ich) gwar na ulic-y.*
      hear.PRED (all-DAT,   for   all-GEN)   din-ACC on   street-LOC
      'Din **can be heard** (*for everybody) in the street.'
      NP-complement (accusative)

(97) **Słychać** *(*mi, *dla mnie), że   spóźni-ł-eś   się*
      hear.PRED (1SG.DAT, for 1SG.GEN) COMP   be_late[PFV]-PST-2SG.M RM
      na   zebrani-e.
      on   meeting-ACC
      '**There has been rumor** (*for me) that you came late to the meeting'
      clausal complement

From the syntactic point of view, *słychać*, contrary to *widać*, cannot be used as a particle, but always behaves like a predicative. That is, it constitutes the basic predicate of a clause, regardless of its function and the type of complement.

Still, we can say that *słychać* is slightly less heterosemic than *widać*, but its array of functions proves to be broader, as we will see below.[34]

The reason why we did not discuss *słychać* in the section of reportive markers is that although it is encountered as a marker of hearsay, this function is only one (and not the dominant one) among a whole array of other functions lying outside evidentiality proper. Moreover, *słychać* is peculiar in that in Polish, it is the only one-word unit that is capable to scope not over the propositional content of speech, but it has scope over its topic. In fact, this usage type seems to be *słychać*'s most usual one. Crosslinguistically, such a specialization is encountered only rarely. See first an example on reportive use in (98), then two examples in which *słychać* only indicates the topic of speech (99)–(100):

(98) *Czy* The Doors *to dobry zespół?*
      *Po   lat-ach   **słychać**, że jako muzycy byli dość przewidywalni.*
      after   year-LOC.PL hear.PRED   COMP
      'Is The Doors a good group? After the years people say [lit. **is heard**] that they were quite foreseeable as musicians.'
      　　　　[G. Brzozowicz, F. Łobodziński, "Sto płyt, które wstrząsnęły światem:
      　　　　　　　　　　　　kronika czasów popkultury", 2000]

(99) *Boją się napadu, kradzieży, bo*
      *coraz częściej   **słychać**   o   włamani-ach.*
      increasingly.often hear.PRED   about   burglary-LOC.PL
      'They are afraid of attacks and theft, since increasingly often **one can hear** about burglaries.'
      　　　　　　　　　[W.M. Korczyńska, "Studia astropsychologii", 2001]

(100) *Nie   **słychać** o   pan-u, pani-e   Władysławi-e.*
      NEG   hear.PRED   about Mr-LOC Mr-VOC   PN-VOC
      Odkąd pan opuścił uniwersytet, nigdzie pana nie spotykam.
      'There has been no news [lit. **not to hear**] about you, Mr Władysław. Since you left university, I haven't met you anywhere.'
      　　　　　　　　　　　[Wł. Kowalewski, "Światło i lęk", 2003]

As we see, the reference to proposition vs. topic correlates with the syntactic realization of the complement: as reportive marker, *słychać* needs a finite clause with a complementizer (*że*), while the speech topic is introduced by the preposition *o* 'about' (plus noun in the locative). These syntactic realizations are not mutually exclusive, but can be combined. This causes potential ambiguity be-

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34 For a comparison of *widać* and *słychać* cf. Wiemer (2009).

tween a propositional complement and a SoA-complement relating to direct auditory perception. See the following example:[35]

(101) ***Słychać***, *że* *koledz-y* *się* *kłóc-ą.*
      hear.PRED COMP colleague-NOM.PL.VIR RM argue[IPFV]-PRS.3PL
    (i) '**One can hear/It is said/There is rumor** that the colleagues are in quarrel.'
    → reportive; reference to propositional content
    (ii) '**One can hear** that the colleagues are quarreling.'
    → auditory perception of simultaneous event; reference to SoA

Potential ambiguity disappears if either the clause is "prepared" by a PP with a cataphoric demonstrative (*o tym lit. 'about this'*), which yields only a reportive reading (102a). Conversely, if the PP *o*+LOC contains an event noun reference is made only to the topic of speech (102b):

(102) a. ***Słychać*** *(o* *t-ym),*
        hear.PRED about DEM-LOC.SG.N
        że *koledzy* *się* *kłócą.*
        COMP colleague-NOM.PL.VIR RM argue[IPFV]-PRS.3PL
                       see interpretation (i) of (101) → reportive
    b. ***Słychać*** ***o*** *kłótn-i* *koleg-ów*.
        hear.PRED about quarrel-LOC colleague-GEN.PL
        '**There is rumor about** a quarrel between (the) colleagues.
        / ... that (the) colleagues had a quarrel.'
        → SoA relating to the topic of hearsay

Of course, various other potentially disambiguating contextual factors are difficult to explicate; see a corpus example where disambiguation is realized in favour of direct perception:

(103) *Ksiądz znika co pewien czas za ołtarzem.*
    Słychać, *że*
    hear.PRED COMP
    wyciera tam głośno zwilgotniały nos i włącza magnetofon.
    'The priest disappears behind the altar every now and then. **He is heard**
    to noisily wipe his dripping nose and switch on the tape recorder there.'
      [M. Gretkowska, "Podręcznik do ludzi: tom 1 i ostatni – Czaszka", 1996]

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35 In practice, these combinations usually occur with a cataphoric demonstrative (*o tym*). In the corpus, we have not found any instances of a finite clause with *że* plus PP containing a full noun.

If *słychać* relates to auditory perception (see reading (ii) of ex. 101), the clausal complement can be introduced by another complementizer, namely: *jak* 'how' (instead of *że*). Moreover, *słychać* can refer to immediately perceived events (and thus to SoA's) with a NP in the accusative; see (96) and the following example:[36]

(104)   **Słychać**   *wrzask-i*   *na*   *ulic-y.*   (≅ ..., *jak*   *ludzi-e*
       hear.PRED   yell-ACC.PL   on   street-LOC   how   people-NOM
       wrzeszcz-ą.)
       yell[IPFV]-PRS.3PL
       '**One can hear** yells in the street (≅ how people are yelling).'

As we see, the correlation of propositional scope with finite complement clauses is quite tight, but not perfect, and it also depends on the complementizer choice between *że* 'that' and *jak* 'how'.

     Finally, there is an idiom *Co słychać?* 'How are you?' (lit. 'What to hear?'), which can be treated as a phraseologized variant of *słychać,* referring to the topic of the speech act.

11.5.2   *niby*

Originally, *niby* has been (and is still) used as a marker of comparison. In this function, it connects two arguments of various formats which may include people and physical objects (*Widzą chłopa **niby** dąb* 'They see a man (who is/looks) **like** an oak') or circumstances (*Przeglądał się w wodzie **niby** w zwierciadle* 'He looked at himself in the water **as if** (it were) a mirror'), but also propositional objects as in

(105)   *Patrzy-ł*   *na nią*   **niby**   *kot*
       look[IPFV]-PST-(3SG.M)   on her.ACC   CMP   cat-(NOM.SG)
       patrzy   *na*   *mysz.*
       look[IPFV]-(PRS.3SG)   on   mouse-(ACC.SG)
       'He looked at her **like** a cat looks at a mouse.'

In the latter case, the objects compared are verbalized as finite clauses. However, *niby* can also have scope over a proposition (expressed as a finite clause). It

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36 This NP can be treated as an ordinary (direct) object, since with negation, it occurs in the genitive. Compare (104'): *Nie słychać wrzasków* 'No cries can be heard./One cannot hear any cries'.

then loses one of its arguments so that the original comparative function becomes opaque. In this case, *niby* becomes a particle, and the element indicating the comparison with an unreal object, circumstance or proposition ('A only superficially is/looks like B')[37] turns into a component implying that the speaker has reservations about saying P ('A is like B, but only to a certain extent').[38] This yields a concessive, or adversative, effect, which can, but need not, be made explicit. Compare:

(106) *Kasi-a* **niby** *lubi* *Pawł-a*
  PN-NOM NIBY like[IPFV]-(PRS.3SG) PN-ACC
  [*, a wciąż się z nim kłóci*].
  ≈ 'Kasia, **as it were/admittedly**, likes Paweł [, but she always quarrels with him].'

In this example the second conjunct need not be verbalized; this shows that the concessive implication is part of *niby*'s meaning. The speaker "accepts the assertion within *niby's* scope, he admits that the respective situation does (or did) hold, but he makes clear that he has reservations regarding the consequences" (Wiemer 2006: 47); similarly in SGPP (2014: 120). Since this concessive element is irrelevant for truth conditions, but nonetheless a stable part of *niby*'s meaning, it can be characterized as a conventional implicature (Wiemer 2017: 477, also Wiemer 2018b).

This use as a particle seems to have supplied the basis for *niby* to occur in contexts of reported speech (see ex. 107–108). It usually is supported by other clausal connectives, e.g. the general complementizer *że* 'that' (see ex. 108–109):

(107) *Ludzie sami pilnowali, żeby lista była jedna. Przez tydzień każdego dnia trzeba się było na niej odfajkować. Miastowym to nie do końca się podoba, bo*
  niby *za* *co* — *powiadaj-ą* — *t-a* *kas-a?*
  {niby} for what.ACC say[IPFV]-PRS.3PL DEM-NOM.SG.F money[F]-NOM.SG
  'People themselves saw to it that there was one list only. Every day for a week everyone had to check off their name on it. The townies do not quite like it, because what **exactly**, they ask, are we charged for?'

  ["Polityka", 2007]

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37 This element of illusion protrudes also in *niby*'s function as a kind of prefix meaning 'pseudo', e.g. *niby-gotyk* 'pseudo-gothic'.
38 Because of these different formats of constituents connected by *niby* Kosek (2002) distinguished conjunction, preposition and particle. This tripartition was suggested merely on the basis of linear syntax. Reinterpreting Kosek's analysis, we can say that particle use arises if *niby* scopes over a proposition and there is no explicit basis of comparison.

(108) *Oczywiście są i tacy, zwłaszcza na wsi i w mniejszych miastach, którzy nie
wiedzą, o co paniom z plakatu chodzi. Inni zarzucają kandydatkom,*
że   niby *nie maj-ą   nic   do   ukry-ci-a,*
COMP   {niby} NEG have[IPFV].PRS-3PL nothing to   hide[PFV]-NMLZ-GEN
a z drugiej strony zasłaniają się kawałkiem dykty.
'Certainly, there are also those, especially in the countryside and in small
towns, who do not understand what the ladies in the poster mean. Others
object **that** although the candidates **supposedly** have nothing to hide,
they shield behind a piece of cardboard.'   ["Polityka", 2007]

(109) *Doszukiwała się kryzysu wieku średniego. No wie pan, takie psychologiczne
bzdury.*
Że   niby *po   tyl-u   lat-ach   małżeństw-a*
COMP   {niby} after so_many-LOC year-LOC.PL   marriage[N]-GEN.SG
szuka-m   odmian-y.
search[IPFV]-PRS.1SG   change[F]-GEN.SG
'She was trying to trace a midlife crisis. You know, all this psychological
nonsense. **That** I'm **supposed** to be looking for a change after so many
years of marriage.'   [M. Cieślik, "Śmieszni kochankowie", 2004]

Niby itself can hardly be treated as a complementizer. Instances in which it
precedes *że* are rare; compare:

(110) *Uradzili, żeby jeszcze siedział za granicą,*
niby   że *jest   zmęczon-y*
{niby}   COMP be.PRS.3SG   tired-NOM.SG.M
i   musi   odpoczą-ć.
and   must.PRS-(3SG)   take_rest[PFV]-INF
'They counseled and decided that he should continue sitting abroad,
(**that**) he is **as though** tired and has to take a rest.'

[cited from Kosek 2002: 251]

Moreover, *niby* is used in some kind of rhetorical question in which the speaker
refers back to an interlocutor's utterance and implicitly objects against that
interlocutor's assertion (Wiemer 2006: 48); compare:

(111) *Przepraszam, że nadal nie rozumiem.*
*A   cz-ego   **niby**   nie ma?*
and   what-GEN {niby}   NEG have[IPFV].PRS-(3SG)
'Excuse me, but I still do not understand. What is it that **as though** is
missing?'   [J. Machulski, "Killer", 1997]

Apart from that, together with *że* 'that', *niby* often serves to paraphrase, or (re)formulate the gist of a preceding utterance, e.g. in order to check if the speaker has understood it properly; compare:

(112) *Wszyscy uświadomili sobie powagę sytuacji, która może doprowadzić do*
        czegoś takiego. Tym razem to był ksiądz, ale następnym razem mógł
        przecież być policjant albo sekretarz. Sam proces musiał wstrząsnąć
        każdym człowiekiem.

   A.M.: *Że* **niby** *płyni-emy*   *na*   *jedn-ej*   *łódc-e?*
          COMP {niby} swim[IPFV]-PRS.1PL on   one-LOC.SG.F boat[F]-LOC.SG
   'Everyone realized the gravity of a situation that can lead to something like this. This time it was a priest, but next time it might indeed be a police officer or a secretary. The trial itself must have shocked everyone.
   A.M.: Like we're **kind of** in the same boat?'
    [A. Michnik, J. Tischner, J. Żakowski, "Między Panem a Plebanem", 1995]

These observations help understand how a comparison unit can become associated with reportive meaning, and *niby* seems to be on its way toward becoming a (quite specific) reportive marker, although it still would be too strong a claim to state that it has become one (cf. Wiemer 2017).

11.5.3 *jakoby* as a complementizer

Jakoby functions not only as a reportive particle (see Section 11.3.1), but also as a complementizer. In this function, it tends to become restricted to reportive contexts, i.e. in modern Polish it is primarily used after CTPs that denote, or are related to, speech acts (ex. 113). It can however still be found as a complementizer after verbs denoting epistemic states (ex. 114). Moreover, one still comes across cases in which *jakoby* links a clausal complement to a CTP denoting a perception, or impression, such as *zdawać się* 'seem' (ex. 115), or after predicates like *udawać* 'pretend' (Wiemer 2015b: 223f.). In all these cases, *jakoby* can be replaced by the standard (neutral) complementizer *że* 'that', albeit with a loss of information (see below). The use of *jakoby* after perception predicates can however be considered obsolete. The same holds true for *jakoby* in its original use as a marker of irreal comparison employed in adverbial subordination (see ex. 116, written in an archaic poetic style); in this use it has more or less been replaced by its cognate *jakby* (see Section 11.6.2):

(113) *Lucia wypierał się,*
        jakoby *spa-ł*   *z*   *facet-ami.*   → reportive
        COMP.IRR sleep[IPFV]-PST-(3SG.M) with guy-INS.PL

'Lucia repudiated **that/as though** he had slept with guys.'

[B. Jędrasik, "Gorączka – opowiadania wyuzdane", 2007]

(114) *Gdyby nie wstydziła się, zapewniłaby, że w ogóle Freud ją znudził i że nigdy nie myślała,*

jakoby	*Mucjusz Scevola*	*by-ł*	*masochist-ą.*	→ epistemic
COMP.IRR	PN-(NOM)	be-PST-(3SG.M)	masochist[M]-INS.SG	

'If she hadn't felt ashamed, she would have assured that really Freud bored her and that she never thought **that** Mucjusz Sevola was a masochist.'

[T. Dołęga Mostowicz, "Trzecia płeć", 1934]

(115) *Zdaje mi się,*

jakoby-m[39]	*słysza-ł*	*jaki-e-ś wołani-e.*	→ perception
COMP.IRR-1SG	hear[IPFV]-PST-(3SG.M)	(some call)-ACC	

'It seems to me **as if** I have heard/am hearing somebody calling [lit. some call].'

[cited from Łojasiewicz 1992: 105]

(116) *I chwil minęło mało-wiele, a Pan (...) na ziemię wstąpił, i serca me trzy w dłoniach ostrożnie dzierżąc,*

jakoby	*skarb-y*	*to*	*jaki-e*
COMP.IRR	treasure[M]-NOM.PL.NVIR	DEM	some-PL.NVIR

by-ł-y	*przeogromn-e,*
be-PST-PL.NVIR	very_large-PL.NVIR

szedł ku mnie powoli. → comparison

'And a lot of moments has passed by, and you Lord have come down to earth and slowly approached me holding carefully my three hearts in your palms **as if** they were huge treasures.' [J. Głębski, "Kuracja", 1998]

The development of *jakoby* into a complementizer that is becoming restricted to reportive use is demonstrated by instances in which *jakoby* links a clausal argument to a CTP whose lexical meaning does not denote a speech act, but nonetheless *jakoby* forces a reportive reading. Although such instances are rare, the next example illustrates this effect:

(117) *Niektóre kluby nic <u>nie wiedzą</u>,*

jakoby	*zgłasza-ł-y*	*gracz-y.*
COMP.IRR	appoint[IPFV]-PST-PL.NVIR	player-ACC.PL

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39 {m} marks 1SG of the *l*-form used to form the past tense and the subjunctive; see also (118). Its attachment to *by* is a relic behavior as a Wackernagel clitic: as such it formerly always occurred jointly with the subjunctive marker *by*, even after *-by* lost its morpheme status in complementizers like *jakoby* (or *aby*, *żeby*; for which see Section 11.2.1.1).

≈ 'Some clubs <u>don't know</u> **that** they **supposedly** proposed the players.'
["Gazeta Krakowska", 25.6.2007; cited from Jędrzejowski and Schenner
2013]

Characteristically, in such instances the actual speaker of the utterance occupies another epistemic attitude than the subject(s) whose point of view is reflected by *nie wiedzą* 'they don't know', i.e. the CTP whose clausal argument is introduced by *jakoby*. In this respect, the complementizer use of *jakoby* neatly corresponds to *jakoby*'s use as a particle; so to say, *jakoby* incriminates a conflict of viewpoints (or of epistemic assessments) that can be exploited for rhetoric purposes (see Section 11.3.1). For this reason, *jakoby* cannot be used with neutrally asserted speech acts or their implied mental states ('X says that P', or 'X knows that P'), unless the actual speaker wants to make clear that they are reluctant to accept the reported viewpoint. Compare the next examples in which the propositional content of the CTPs (*twierdzić* 'claim', *podać do wiadomości* 'let know (to the public)') is ascribed to another person, while the speaker (about whom this content is stated) might be of another opinion:

(118) *Twierdzi,*   ***jakoby-m***   *by-ł*   *Samuraj-em*
       claim[IPFV].PRS-(3SG)   COMP.IRR-1SG   be-PST-(SG.M)   samurai[M]-INS.SG
       – *powiedziałem*.
       'He claims **that/as though** I was a samurai – I said.'
                                         [J. Dukaj, "W kraju niewiernych", 2005]

(119) *Józef Baran (…) podał przy tej okazji do wiadomości,*
       jakoby   *"Kędziorówk-a"*   *by-ł-a*
       COMP.IRR   PN-NOM   be-PST-3SG.F
       mo-im   *dom-em*   *rodzinn-ym.*
       my-INS.SG.M   house[M]-INS.SG   of_family-INS.SG.M
       'At this occasion, Józef Baran inform the public know **that (as though)**
       "Kędziorówka" was my home.'
                                    [St. Mrożek, "Jak zostałem filmowcem", 2004 [1975–1977]]

To put it another way: *jakoby* occurs if the actual speaker wants to mark that they deviate from the propositional content coded by the clausal argument, if they can doubt it, or if it is negated. Thus, in (113) negation is lexically incorporated to the verb (*wypierać się* 'deny'), in (114) the neutral verb of mental attitude (*myśleć* 'think') is negated.

The same restrictions to epistemic attitudes, and to correlated speech acts, apply if *jakoby* heads a complement clause to a nominal attachment site; compare the following examples:

(120) *Polskie Ministerstwo Spraw Zagranicznych informuje, że*
<u>*nie*</u>   <u>*jest*</u>   <u>*prawd-ą,*</u>   **jakoby**   *obywatel-e*
NEG   be.PRS.3SG   truth[F]-INS.SG   COMP.IRR   citizen[M]-NOM.PL.VIR
polsc-y   *przebywa-l-i*
Polish-NOM.PL.VIR   stay[IPFV]-PST-PL.VIR
w tym czasie w rejonie katastrofy.
'The Polish Foreign Ministery informs that <u>it is not true</u> **that** Polish citizens stayed in the area of the catastrophe at that time.'
[A. Kapelański, "Wielki koneser", 2006]

(121) *Była w kryzysie i tylko dlatego mogła przyjść jej do głowy*
<u>*heretyck-a*</u>   <u>*myśl,*</u>   **jakoby**   *psychologi-a*
heretic-NOM.SG.F   thought[F]-(NOM.SG)   COMP.IRR   psychology[F]-NOM.SG
mia-ł-a   *by-ć*   *nadużyci-em.*
AUX-PST-3SG.F   be-INF   abuse[N]-INS.SG
'She was in a crisis and only for that reason she could conceive of <u>the heretic thought</u> **that** psychology was an abuse.'
[M. Rakusa, "Żona Adama", 2010]

(122) <u>*Tez-a,*</u>   **jakoby**   *husyc-i*   *z zasady*   *i*
thesis[F]-NOM.SG   COMP.IRR   husit[M]-NOM.PL.VIR   in principle   and
nigdy   *nie*   *bra-l-i*   *jeńc-ów,*
never   NEG   take[IPFV]-PST-PL.VIR   captive[M]-GEN.PL
jest historycznie nieprawdziwa (...).
'<u>The thesis</u> **that** the husits did never take captives, and this by principle, is historically untrue.'   [A. Sapkowski, "Historia i fantastyka", 2005]

(123) *Przeciwnicy polityczni szefa, których także i w samej Komendzie Głównej*
do niedawna nie brakowało, kolportowali
<u>*informacj-e,*</u>   **jakoby**   *szef*   *pozna-ł*
news-ACC.PL   COMP.IRR   boss[M]-NOM.SG   recognize[PFV]-PST-(3SG.M)
GO   *od razu,*
3SG.M.ACC   immediately
ale nie zdradził się z tym.
'The boss's political opponents, who until recently weren't lacking in the headquarters themselves as well, circulated <u>information</u> **that** our boss had recognized HIM at once, but hadn't betrayed him.'
[J. Głowacki, "Rose Café i inne opowieści", 1997]

Actually, as a complementizer *jakoby* shows a higher token frequency with nominal than with verbal attachment sites (Stępień 2008: 329; Wiemer 2015b: 225f.).

11.6 Remarks on diachrony

Our first comments concern the structure and functional development of sentence adverbs (also treated as particles); Section 11.6.1. We then turn to parts of the history of the probably most remarkable heterosemic evidentiality marker *jakoby* (Section 11.6.2) and comment on the general diachronic background of predicative (Section 11.6.3), before summarizing findings on the functional development of *mieć* 'have > have to > REP' (Section 11.6.4) and other modal auxiliaries (Section 11.6.5).

11.6.1 Sentence adverbs and particles from adjectival roots

In general, the etymology of these units is rather transparent. *Widocz-n-ie* and *wyraź-n-ie* are just based on adjective stems (with suffix {n}); the meaning shift from manner reading (and narrow scope) to propositional scope, and the shift from direct perception to inference (for *widocznie*) is part of the individual histories of these adverbs (not the adjectives). *Rzeko-m-o* is the former neuter gender of the (now extinct) nominal inflection of the present passive participle (suffixed -*m*-) of the now obsolete verb *rzec* 'say, tell'. *Podob-n-o* goes back to the same formerly inflected form of the adjective *podob-n-y* 'similar'. According to available historical dictionaries (end of 14th c. until end of 16th c.) and a couple of dictionaries reflecting usage from the end of the 18th to the mid-20th century, *podobno* started as an epistemic modifier ('probably') and, at least in part, acquired reportive function via contexts in which epistemic judgment was based on hearsay already during the 16th century. However, it was apparently not before the mid-19th century when *podobno* really could be used with an exclusively reportive meaning. In the following example (from the first third of the 20th century) *podobno* cannot but be interpreted as referring to hearsay, since the speaker relates an episode from a period when he had been a baby:

(124) **Podobnoś** *już w powijakach byłem brany przez ojca na konia, ku ogólnemu wzburzeniu ciotek, babek no i mamki.*

'**It is said that** already in my infancy I was taken on horseback rides by
my father, to the common indignation of my aunts, grandmas and, of
course, my wet nurse.'

[J. Strzemię Janowski, "Karmazyny i żuliki", 1934; the author lived 1887–
1938]

The same applies to the functional evolution of *ponoć*, whose etymology is less
clear: according to one explanation, it is just the phonological contraction of
podobno-ć (with *-ć* being an agglutinated shortening of the clitic *ci* 'you.SG.DAT',
used as sort of pragmatic marker; compare with *podobno-ś* in ex. 124); cf.
Brückner (1989: 425). Due to another viewpoint it continues *pomno-ć* (i.e. *pom-
n-o* = neuter of the nominally inflected adjective *pomny* 'memorable' with the
same agglutinated clitic).[40]

11.6.2 *jakoby*

The lexical history of this heterosemic unit starts with univerbation of the com-
parative particle *jako* 'as, like' and the subjunctive enclitic *by*. The enclitic ag-
glutinated and subsequently ceased to exist as a distinct morpheme. It had
appeared as the result of the paradigmatic isolation of the 3SG-aorist of *byti*
'be',[41] which is still the standard subjunctive marker (together with the *l*-form <
l-participle of the lexical verb):

(125)   *jako + by* (= 'be'.SBJV < 3SG.AOR) > *jakoby* → univerbation + new lexical unit

From the end of the 14th to the end of the 16th century, *jakoby* was used as a
general comparison marker with virtually any sort of entity whose reality was
judged as illusory, doubtful or even false; virtually any sort of syntactic unit
could occur in its syntactic scope, and the constituents it connected were of
identical shape (i.e. isomorphic). At least by the late 16th c. *jakoby* was still used
as a transparent composition (*jako+by*) in comparison contexts, and its em-
ployment as complementizer only slightly outweighed its uses as a conjunction

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40 SłXVI (1999: 225f.) notes that *pono* (*ponno*) is lacking in the academy dictionary of Old
Polish and gives a reference to *pomno* (SłXVI 1999: 139). Both items are circumscribed as 'as it
seems, probably' ('jak się wydaje, prawdopodobnie'). For more details cf. Wiemer (2005: 123–
125).
41 In Polish (as in other North Slavic languages) the aorist as such died out very early (more or
less by the 14th century).

(in adverbial subordination). The latter use has become obsolete.[42] An extension from comparison into reportive marking apparently started not earlier than in the 16th century. By that time, nominal attachment sites were rare, in contrast to modern Polish (see Section 11.5.3), so that a rapid increase must have occurred in the meantime. At present we cannot say whether this increase was directly correlated with jakoby's employment after appropriate attachment sites that were related to speech acts, but in any case propositional scope must have played a pivotal role for this shift. For details cf. Wiemer (2015a, 2018a: 317–320).

Curiously, the comparison unit *niby* discussed in Section 11.5.2 (for modern Polish) appears to be undergoing a process which reflects early stages in the emergence of *jakoby* as a reportive marker. The etymology of *niby* is obscure, but probably its original composite parts are a negative element (*ni*) and the same enclitic *-by* which we find in *jakoby* (and other connectives); after agglutination both elements lost their morpheme status. As a starting condition of functional development we may consider the fact that *niby* connects two isomorphic phrases, including finite clauses able to code propositions. As a particle, it "loses" one of these arguments but scopes over a proposition. It is thus tempting to consider a cyclic development of (emergent) reportive marking from (certain) comparison markers. Here many issues are open for corpus-based study of diachronic syntax, semantics and pragmatics.

11.6.3 Petrified infinitives as predicatives

The four predicative units discussed in Section 11.2.1.1 and Section 11.5.1 (*widać* 'see', *słychać* 'hear', *czuć₂* 'feel, smell', *znać₂* 'understand, see') are petrified and paradigmatically isolated forms of infinitives. According to SłStar (1953–1955: 405f.), Old Polish *czuć* was used very broadly not only in perception meanings, but also with cognitive meanings ('think, assume') and meanings like 'be vigilant, guard' or 'be diligent, eager'. None of the non-perceptive meanings has survived, but in Old Polish the olfactory meaning does not seem to have been salient; SłStar (ibid.) adduces only one relevant example. This given, the slight bias of the modern predicative *czuć₂* toward olfactory perception has probably developed after the 15th century.

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42 Cf. Jędrzejowski and Schenner (2013). Virtually all previous stages of *jakoby* preceding its use as a reportive marker are still encountered for cognate units in the West Slavic sister languages (Wiemer 2018a: 313–317). In contemporary Polish, the original function as comparison marker and conjunction has gradually been taken over by the likewise cognate *jakby*.

As concerns *słychać* and *widać*, their inflected forms cease to be attested by the middle of the 18th century (Grzegorczykowa 1990: 565). Etymologically *widać* is closely related to *widzieć* 'see', the neutral verb with this meaning in contemporary Polish. The verbs differ in their stem-extending suffixes: {a} is typical of old iterative formations, whereas {e} (< *ě*) characterized progressive or inchoative verbs. The same holds true for *słychać* vs. *słyszeć* 'hear'. In general, original iterative formations of unprefixed verbs have long been on their retreat in Polish (and other Slavic languages). While the paradigmatic isolation of the infinitival forms of these verbs undoubtedly has to be considered as a factor responsible for their development into evidential markers, a plausible explanation for their appearance (or rather: their survival into modern Polish) has to be based on a more global background all the more, namely: the use of the infinitive for a period spanning over at least the past 400 years. In general, the infinitive has been gradually retreating from independent clauses (cf. Pisarkowa 1984: 34–41; Weiss 1984, 1993).[43] In this sense, four predicatives discussed may be considered remnants of obsolete clause patterns with the infinitive as nucleus.

11.6.4 *mieć* 'have > should/ought to > said to'

According to Hansen (1999: 122–128), *mieć* is already attested as a modal auxiliary in the earliest documents (dating to the end of 14th century). At that time, the deontic function (moral obligation) seems to have been dominant (ex. 126), but a weak obligation meaning associated with the verbalization of volition (ex. 127) and a purely reportive meaning (ex. 128) are attested as well.

(126) *Pirzwa kaszn tworcza naszego,*

     ne-ma-sz   *me-cz*   *bog-a*   *gyn-ego.*

     NEG-have.PRS-2SG have-INF god[M]-GEN.SG   other-GEN.SG.M

     'The first commandment of our creator: thou **shall not** have any other god.'

                                                 ["Dekalog wierszowany", about 1410]

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43 In this respect, Polish diachronic syntax contrasts sharply with East Slavic. Note that in Russian, cognates of these four Polish units are even rarer or virtually inexistent. Compare Russ. *vidat'* 'see', *slyxat'* 'hear', *znat'* 'know' as predicatives (with *čuvstvovat'* or altogether oblivious †*čujat'* 'feel, smell' not attested as predicatives at all) in Wiemer and Letuchiy (this volume).

(127) *Pytalyczye nasz (…), zaluyącz na waszego woytha (…),*

prosz-ącz	*nasz,*	*czo*	*by-sczye*	*sz*	*nym*
ask[IPFV]-CVB	1PL.ACC	what.ACC	SBJV-2PL	with	him.INS

mye-l-y	*vczyny-cz.*
have-PST-PL	do[PFV]-INF

'You asked us (…): you are deploring about your chief officer [of villages]
(…), asking us what **should** you do with him.'

[Ortyle Magdeburskie, OrtKał 210]

(128) *[Sic jurabunt] Jsz yaco szalowal Bodzantha na Barthosza,*

ysz-by	***ma-l***	*Barthos*	*jacha-cz*
COMP-SBJV	have-PST-(3SG.M)	PN[M]-(NOM)	drive[IPFV]-INF

*szamoczwarth gwaltem przed yego dom y scrzelicz nan, a on s namy tą
nocz y dzen bil any tego wczynil.*

'[They will swear] That if Bodzantha sues Bartosz, that he [i.e. Bartosz]
[**allegedly**] drove with three other men before his house and shot at him,
he stayed with them all the night and day and did not do this.'

["Rota sądowa", 1420]

The second and third type of use (ex. 127–128) correspond to the ones that are
most prominent contemporarily, discussed in Section 11.3.2. Characteristically,
if *mieć* was negated (in deontic use) the negation preceded it, but the combina-
tion NEG+*mieć*+infinitive read semantically as internal negation (□ ¬p); see
(126). Apart from this, the movement of *mieć* into the domain of hearsay must
have become much more prominent by the 16th century, when it is attested as a
subjunctive marker in conditional and other non-affirmative contexts (usually
in dependent clauses). These rather "syntactic" usage types were partially
abandoned later.[44]

Presumably, the slow movement from deontic into reportive functions was
catalyzed by the frequent occurrence of *mieć* in dependent clauses (predomi-
nantly in the subjunctive), following as arguments of appropriate CTPs with
directive or assertive illocutionary force (see ex. 127–128), or in contexts in
which the respective speech act type was made explicit otherwise. We may as-
sume that the transition to reportive meaning was achieved in contexts in which

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44 Cf. also the analysis in Holvoet (2012: 138–143). The past tense forms developed another
postmodal use, the "destiny type", which has survived into modern Polish; compare: *Mieli się
nigdy więcej nie spotkać* 'They were never to meet again'. In contrast to the subjunctive uses,
this type "is not, in any obvious sense, interpretive. For all we know it might have arisen from a
non-interpretive sense of *mieć* as a modal expressing necessity" (Holvoet 2012: 140).

this sort of "modal harmony" was lacking, whereby *mieć* became the sole marker of hearsay. It seems, however, that this stage was fully established only during the first half of the 19th century (Hansen 1999: 124f.).

Since the functional development of *mieć*+infinitive closely corresponds to the development of Germ. *sollen* (Weiss 2009), one remark on grammatical replication will be in place here. As mentioned in Section 11.3.2, the past tense form Germ. *sollte* has split off from the paradigm of *sollen as a separate lexeme*, as it can no longer be understood compositionally like *sollen*+past tense (or conditional), whereas Pol. *mieć* has been and is still used with reportive function in both past and non-past tense ever since its first appearance in Old Polish. The beginnings of a presumed calquing process from German cannot be established, since these predate first originally Polish documents. The split between *sollte* and *sollen* in German must be of a much younger date, since we do find records of *sollte* in reportive use as early as 1210 (Wiemer and Hansen 2012: 77f.).

11.6.5 Other auxiliaries

Pol. *musieć* 'must' is a borrowing of Germ. *müssen* (more precisely of MHG *müezen* < OHG *muozan)*, and it is attested in several other Slavic languages (Hansen 2000). As for Polish, "we do not know whether Polish adopted it directly or through the mediation of Czech. The exact date of the borrowing is not clear, because *musieć* is found in the earliest Old Polish texts, i.e. in the 14th and 15th century" (Hansen 2000: 80). At that period, we already find it in circumstantial and deontic usage, epistemic usage is attested since the 16th century. Shortly before borrowing must have occurred, MHG *müezen* must have experienced a meaning shift from possibility to necessity, and older possibility readings were still alive. On this background it is striking that "Polish adopted *müssen* as a pure expression of necessity and that even in negated contexts it did not contain any ambiguity at all" (Hansen 2000: 81). What is more, there are attestations of *musieć* with external negation in the very first documents, and this was reflected iconically by the position of negation immediately before the modal (Hansen 1999: 117–122). The marginal traits of inferential usage discussed in Section 11.2.2 seem to testify to a very recent development.

As concerns *powinien* 'should, ought to', its earliest attested use was restricted to obligation and it is thus tightly connected to its etymology. This adjective (inflecting for gender, number and initially also case) derives from the noun *wina* with the meaning 'debt' rather than moral or religious 'fault, sin'. This is suggested by the fact that in the earliest documents, we encounter it

almost exclusively in juridical texts listing reciprocal obligations of citizens. The adjective *powinien* was used both as predicate and NP-internal attribute. Later, it lost the latter syntactic type, which was left to the cognate adjective *winien*. This, in turn, has not developed into a modal auxiliary, while *powinien* became a prominent modal of weak obligation (not restricted to legal notions) and extended into the epistemic domain[45] (see Section 11.2.2); cf. Hansen (1999: 128–131). As with *musieć*, its marginal inferential uses analyzed in Section 11.2.2 are evidently a very recent development.

Abbreviations in glosses (not included in LGR)

CMP	comparison marker
COMP.IRR	complementizer with irrealis function
CONJ	conjunction
NVIR	non-virile
PN	proper name
PST.IMP	past impersonal
PTC	particle
RM	reflexive/middle marker
VIR	virile

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45 In a sense, thus, *powinien* and *winien* have become "profiled" against each other both in terms of meaning and syntactic distribution. However, in predicative use *winien* is still attested as a synonym of *powinien*, first of all in the field of moral obligation; compare, e.g., *Winieneś* (= *powinieneś*) *jej pomóc* 'You have to help her' (http://sjp.pwn.pl/slowniki/winien.html).

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Part V: **Language Profiles – Other**

Aurelija Usonienė and Anna Ruskan

12 Evidentials in Lithuanian

12.1 Introduction

Lithuanian does not belong to the "quarter of the world's languages" where "marking a selection of information sources is obligatory" (Aikhenvald 2014: 3–4), but it has both grammatical and lexical means coding evidential meanings at its disposal. Grammatical realizations of indirect (inferential or reportive) evidentiality can be expressed by means of two constructions containing active and passive participles which could be regarded as "evidential extensions of non-evidential categories" (Aikhenvald 2007: 209), because the evidential meaning is triggered by the syntactic configuration and the grammatical meaning of the participle (Gronemeyer 1997; Wiemer 2006a, b; Sprauninė et al. 2015). Consider the following two examples obtained from the Corpus of Academic Lithuanian (CorALit)[1], where in (1) a reportive evidential construction with an agreeing active participle is used, and (2) contains an inferential evidential construction with a non-agreeing past passive (-*ta*) participle with a genitive subject:

(1)   *Vokietijoj buvo gandai, kad vieni matė ten, kiti ten, paskum, kad jis kažkur kitur archyvuose*
       ***dirbąs**,   bet šitie dalykai nepasitvirtino.*
       work.AGR.PRS.AP.SG.M.NOM
       lit. 'There were rumors in Germany that somebody had seen (him) there, the others there, later on, that he **reportedly worked** somewhere else in the archives but this information was not confirmed.'   [CorALit-H]

(2)   *Vyruko*   ***būta***   *liekno –*   *paspruko*   *pro*   *kaminą.*
       guy.GEN   be.NAGR.PST.PP   slim.GEN   escape.PST.3   through   chimney.ACC
       'The guy **was obviously** slim – (he) escaped through the chimney.'
                                                       [CCLL-fic]

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1 The language data used for illustration in the current study have been basically retrieved from two corpora. The Corpus of Academic Lithuanian (CorALit) (http://www.coralit.lt/; about nine million words) which is a specialized synchronic corpus of written Lithuanian. The texts published from 1999 to 2009 represent the main fields of study and research, i.e. **B**-biomedical sciences, **H**-humanities, **P**-physical sciences, **S**-social sciences, and **T**-technological sciences. The size of the Corpus of the Contemporary Lithuanian Language (CCLL) (http://tekstynas. vdu.lt/tekstynas/) is 140.9 million words and it consists of texts collected from fiction (CCLL-fic), non-fiction (CCLL-non-fic), journalistic (CCLL-jour), and spoken language (CCLL-sp).

However, the latest study devoted to the corpus based quantitative and qualitative analysis of the existing potential of the grammatical realizations of evidentiality in Lithuanian has shown that despite the fact that non-agreeing passive -*ma/-ta* participles in (2) are very frequent in contemporary Lithuanian, their use in the evidential construction is marginal and it appears only as a relic of the end of the 19th – beginning of the 20th century language (Usonienė and Šinkūnienė 2017: 332). On the contrary, the evidential construction with an agreeing active participle as in ex. (1) is still in use, especially in fiction and humanities discourse, however it is not common in news or spoken discourse.

Participles in the two constructions function as main predicates of the clause, which sets them apart from other evidential constructions found in the complementation of cognition, communication and perception verbs in English, Danish, Latin, namely *Nominativus cum Infinitivo* (NcI) discussed in Noël (2001), Noël and Colleman (2010), Ørsnes (2011) and *Accusativus cum Participio* (AcP) dealt with in Greco (2013); cf. also Marín-Arrese, Carretero and Usonienė (this volume) for NcI in English. The relatedness of the AcP construction and evidentiality in the Lithuanian language as opposed to other languages is discussed in Usonienė and Vincent (2018).

The main realizations of non-grammatical/non-morphological evidentiality in Lithuanian which belong to the hyperlexemes SEE, HEAR, FEEL, SEEM, KNOW are either lexical verbs or adverbials. Basically there are two forms of the verbs (infinitive and a reflexive 3rd person present tense form) that are used in impersonal constructions or as parentheticals to encode direct or indirect evidential meanings. Many of the adverbials in contemporary Lithuanian are synchronically traceable back to the two verb forms mentioned, e.g.:

(3)   *regis* 'apparently' < *regi-si* 'see/behold'.PRS.3-REFL < *regė-ti-s* 'see/behold'.INF-REFL;

(4)   *rodos/rods* 'seemingly' and *rodo-si* 'appear'.PRS.3-REFL < *rody-ti-s* 'appear'.INF-REFL (a converse of the verb *rodyti* 'show');

(5)   *matyt* 'apparently' < *maty-ti* 'see'.INF.

All of them can be characterized as broad-spectrum markers of evidentiality. Section 12.2 will be focused on the markers of direct and indirect evidentiality which are transparently related to the verbs *matyti* 'see', *girdėti* 'hear', and *justi, jausti* 'feel'. Section 12.3 will deal with inferential evidentials by paying special attention to the markers derived from perception and *seem*-verbs as well as evidentials that derive from non-agreeing adjectives used as predicates of impersonal matrix clauses (also referred to as one-word predicatives) and adverbs. Section 12.4 is

devoted to an overview of realizations of reportive evidentiality in Lithuanian, namely one-word forms of cognition verbs that function as complement taking predicates (CTPs) and ACCORDING TO-type markers. Cognition verb-based CTPs are so called -*ma* participles or non-agreeing present passive participle forms used predicatively which can undergo parentheticalization and adverbialization. The evidentiality status of distancing markers (DstMs) is under revision in Section 12.5. A very brief overview of the etymological studies available and a few observations on short term diachrony are presented in Section 12.6.

12.2 Direct and indirect evidentials

There are three perception verbs which are most commonly used to mark direct and indirect types of evidentiality in Lithuanian: *matyti* 'see', *girdėti* 'hear' and *jausti*/*justi* 'feel'. The most frequent of the three of them is the verb of visual perception *matyti* 'see', while the verbs *justi* and *jausti* 'feel' have the lowest frequency. Moreover, they are most commonly found in the written journalistic discourse. Among the impersonal reflexive 3rd person forms the most common are present and past tense forms of the *feel*-verb *jaučiasi*/*jautėsi* 'feel'.PRS.3REFL/PST.3REFL. Impersonal infinitival constructions with these verbs are found to encode direct visual, auditory, olfactory or unspecified (in terms of sense modalities) sensation, as in the following examples:

(6) *Tarp   aktorių   **justi**   didelė [...]   konkurencija [...].*
     among   actors.GEN   feel.INF   huge.NOM   competition.NOM
     lit. 'There (is) **felt** a fierce competition among the actors.'   [CCLL-jour]

(7) *Jau   buvo   **matyti** gyvenvietės   stogai,   **girdėti***
     already   be.PST.3   see.INF settlement.GEN roofs.NOM   hear.INF
     šunų   lojimas.
     dogs.GEN   barking.NOM
     'The roofs of the settlement could **be seen**; dogs' barking could **be heard**.'   [CCLL-fic]

The given type of evidential infinitival constructions with perception verbs has no overt dative subject-experiencer. They describe cases of Stimulus-oriented perception (Usonienė 2003: 14), when the focus of attention is the entity or phenomenon perceived and indication of information source, namely specification of sense modalities (feeling, hearing, seeing, etc.). The infinitive is the main predication of the clause and it takes an NP complement in the nominative case (under negation the NP is case-marked in the genitive).

Full and reduced infinitive forms can also function as markers of evidentiality when they are used as matrix verbs. Mention should be made of the fact that there is no correlation between the features of finiteness and full or truncated form of the matrix verb. These CTPs take either finite (8)–(9) or non-finite (10)–(11) complement clauses, e.g.:

(8) *Ji tyli,* **girdė-t kaip** *griežia dantimis [...].*
she be_silent.PRS.3 hear-INF how grind.PRS.3 teeth.INS
'He is silent, one **can hear how** he is grinding his teeth.' [CCLL-fic]

(9) *Persimeta po žodį [...] ir tyli, aiškiai* **maty-t**,
exchange.PRS.3 PRP word.ACC and keep-silent.PRS.3 clearly see-INF
kad *pavargę jau ir nebe*
COMP tired.AGR.PST.AP.NOM.PL already and no-longer
jaunikliai.
youngsters.NOM
'They exchange a few words and keep silent; it **is** clearly **seen that** they are tired, naturally they are no longer youngsters.' [CCLL-fic]

(10) *[...] toli miške* **girdė-ti** *girgždant sniegą.*
far forest.LOC hear-INF creak.NAGR.PRS.AP snow.ACC
'Far away in the forest, snow can **be heard** (to be) creaking.' [CCLL-fic]

(11) *[...] studentų saldainiai* **girdė-ti** *braškant!*
students.GEN candies.NOM hear-INF rustle.NAGR.PRS.AP
'Only students' candies could **be heard** (to be) rustling.' [CCLL-fic]

The two types of evidential meaning: direct (8), (10), (11) and indirect (9) are utterly dependent upon the type of complementation. The AcP and an occasional use of an NcP with non-agreeing participles in (10), (11) and the construction with the finite *kaip* 'how' clause in (8) denote simultaneous perceptually observable (auditory/visual) entities, while the *kad* 'that'-clause in (9) denotes a visually non-observable entity. Actually, it denotes a proposition and the sentence contains an expression of the author's subjective judgment about the people's appearance ('they are tired'). The source of information, which is inference triggered by processing of perceptual data obtained, in the given case is coded by choosing a reduced form of an infinitival complement-taking predicate (CTP) *maty-t* 'see'-INF. Both reduced and full infinitival forms functioning as CTPs have the same evidential meaning, e.g.:

(12) *Palyginus rezultatus* **matyti, kad** *vyrai savo karjeros perspektyvas vertina palankiau nei moterys.*

'Having compared the results **it is seen that** men are more positive about their career perspectives than women.'   [CorALit-H]

The only difference is purely quantitative, which means that full forms are most commonly used as CTPs while reduced verb forms are predominantly found in parenthetical use. For instance, in the fiction sub-corpus of the CCLL, the percentage of the parenthetical use of the reduced infinitive form *matyt* 'see' in its concordance is 97. (For more detail on the parenthetical *matyt* 'apparently' see Section 12.3.) Conversely, there have been only a few cases of the reduced infinitive form *girdėt* 'hear' found to be used parenthetically, while the occurrence of the reduced infinitive form *just/jaust* 'feel' in the CCLL equals zero, which means that it is actually non-existent.

The same kind of indirect evidential meaning which is characteristic of reduced infinitive forms of the perception verbs *matyti* 'see' and *girdėti* 'hear' functioning parenthetically can be expressed by the parenthetical *mato-s* 'see'.PRS.3-REFL. Compare the following examples:

(13) *[...] pamaišė pamaišė, pakabino, bet nuryti,* **mato-s,**
stir.PST.3   take.PST.3 but swallow.INF see.PRS.3-REFL
jam   sunku [...].   Nelenda.
he.DAT difficult.NAGR NEG.get-down.PRS.3
'He stirred (for a while), then took a spoonful but to swallow **seems to** be difficult for him. No way.'   [CCLL-fic]

(14) **Girdėt***, japonai [...] pensininkams net dvigubas pensijas išmoka, jeigu sutinka išvykti iš Japonijos [...].*
'**Rumor has it** the Japanese pay double pensions to the retired if they agree to leave Japan.'   [CCLL-jour]

However, no parenthetical use of the impersonal reflexive third-person forms of the verbs *girdėti* 'hear' or *justi* and *jausti* 'feel' has been attested in the CCLL or CorALit. It should be also noted that in contemporary Lithuanian, the impersonal reflexive verb forms *mato-si* 'see'.PRS.3-REFL, *matė-si* 'see'.PST.3-REFL, *girdi-si* 'hear'.PRS.3-REFL are more frequently used in the constructions with nominal complementation to denote direct perception as in (7). The frequency of the alternative indirect evidential construction when these verb forms are followed by a finite clausal complement (basically *kad/jog-* 'that' clauses; cf. Usonienė 2001: 178) is much lower. Like their infinitival counterparts the constructions with impersonal third-person reflexive forms as a rule do not have an overtly expressed dative subject-experiencer (*man* 'to me', *jai* 'to her', *jiems* 'to them', etc,). The reduced forms *matos* (< *matosi*) and *matės* (< *matėsi*) demonstrate

absolutely the same tendencies in use and meaning as their full forms, i.e. the choice between the variants *-s* and *-si* does not have any influence on the evidential reading. The only difference between full and reduced forms is quantitative: the reduced forms are much less common; they can parentheticalize, however their frequency is very low.

The most frequent and highly multifunctional discourse marker *mat* might have evolved from any of the forms of the verb *matyti* 'see', i.e. third-person reflexives: ***mat-o-s(i)*** 'see'.PRS.3-REFL'/***mat-ė-s(i)*** 'see'.PST.3-REFL or the infinitive ***mat-y-t(i)*** 'see'.INF (cf. Wiemer 2007: 187). It might also have arisen from the personal forms ***mat-ot(e)*** 'see'.PRS.2PL, ***mat-ai*** 'see'.PRS.2SG (cf. *you see* in English), which can function as interpersonal discourse markers. As there are no historical corpora of the Lithuanian language, it is impossible to trace back the development of *mat*, which in present-day use seems to have the same meaning and functions as the discourse marker (DM) *for* in English (Schiffrin 1988: 191). It can be used to mark an effect-cause relation as in the following example:

(15) *[...] tąnakt   užšalo   net   Baltija, **mat**   speigas*
      that_night freeze.PST.3 even Baltic   **DM**   chill.NOM
      žnybo   iki -21°.
      bite.PST.3 till -21
      'That night even the Baltic sea got frozen **DM 'because'** the temperature
      was down to 21 below zero.'   [CCLL-fic]

The causal discourse marker *mat* can collocate with the hearsay marker *pasak X* 'according to X', which indicates source of information (see Section 12.4.1), e.g.:

(16) *Bet į pirkią žengs tik pašiūrėj pakorę zuikius, **mat, pasak dėdės**, zuikis turi savaitę šaltyje pabūti [...].*
      'But they will enter the cottage only when they have hanged the hares in
      the shelter **DM 'because' according to my uncle** a hare has to stay in
      the cold for a week.'   [CCLL-fic]

Fact-based causal relation (Schiffrin 1988: 202) denoted by *mat* is not inferential, it is identical to that of the subordinator *nes* 'because/for', thus *mat* is not to be regarded as a marker of evidentiality, e.g.:

(17) *Vienur kitur   žiburys, – **mat** vakarienę kai kas   jau*
      here-and-there light.NOM **DM**   dinner.ACC somebody already
      valgo   prie lempos.
      eat.PRS.3 at   lamp.GEN
      'There are few lights here and there **DM 'because'** some people have
      their evening meal with electric lighting on.'   [CCLL-fic]

Mat can also be used for encoding mirative meaning with an overtone of irony and indignation,[2] e.g.:

(18) *Sportų meistras **mat** atsirado*!
     '**What the heck** master of sports he is!'   [CCLL-fic]

12.3 Inferentials

The findings of the corpus-based analysis demonstrate that the same inventory, namely verbs of visual perception, is very common in realizations of two types of indirect evidentiality, namely inferential and reportive. The distinction between inferentials and reportives as well as between the two types of inferentials (perceptual or judgmental) can be utterly dependent upon context or type of complement. The two impersonal CTPs of visual perception: *mato-s(i)* 'see'.PRS.3-REFL and *regi-s(i)* 'behold'.PRS.3-REFL as well as the adverbial *regis* 'seemingly' are used to code inference based on:

(i)   perceptual evidence (visual or auditory), see (19);
(ii)   non-perceptual, i.e. knowledge- or cognition-based, see (20);
(iii) hearsay, see (21).

Consider the following examples that illustrate the three types of sources triggering inferences:

(19) *Rašysena   stambi,   **matosi**,   **jog**   buvo*
     handwriting.NOM thick.SG.F see.PRS.3.REFL COMP   be.PST.3
     rašoma   sutelkus   pastangas.
     write.NAGR.PRS.PP focus.NAGR.PST.PP efforts.ACC
     'The handwriting is thick and large, it **is seen that** it has been written with much effort.'   [CCLL-fic]

(20) *[...] senelis   šeimininkui spaudė   ranką,*
     grandfather.NOM   host.DAT   shake.PST.3 hand.ACC
     ***regis**,   jie   buvo   seniai   pažįstami*
     seemingly   they   be.PST.3 a-long-time.ADV acquaintances.NOM

---

2 It seems likely that it is the discourse marker *matai* 'you see' which is the source of the mirative *mat* because *matai* 'you see' can have the same function and meaning, e.g.:

(i)   – *Aš čia vos neišprotėjau, o jis juokauja! Klounas atsirado, **matai**!*
       'I am going nuts and he is joking! **What the hell a** clown you are!'   [CCLL-fict]

'Grandfather and the host shook hands, they **seemed** to have been on good terms for a long time.' [CCLL-jour]

(21) *[...] iš paskutiniųjų posėdžių aiškiai **matosi,** **kad** bankuose*
from the latest meetings clearly see.PRS.3.REFL COMP banks.LOC
valstybės dalis atstatyta [...].
state.GEN share.NOM restore.PST.PP
'From the latest meetings it **is** clearly **seen that** the state's share has been restored.' [CCLL-jour]

As can be seen in the last example, the context contains an overt indication to the source of evidence that has led to the following inference, namely hearsay, and the cue to the given interpretation is the phrase *iš paskutiniųjų posėdžių* 'from the latest meetings'.

12.3.1 Markers derived from perception verbs

The present tense form with the reduced reflexive marker *regis* 'behold' (compare *regė-ti-s* 'behold'-INF-REFL) has developed into an adverbial with the meaning 'seemingly' (as in 20), however occasionally it can be found functioning as a CTP with an evidential meaning of inference based on knowledge (conceptual evidence), e.g.:

(22) *Gordonas dažnai vartoja grupės terminą, tačiau **regis** **jog***
behold.PRS.3.REFL COMP
kalba apie individo patirtį.Visos asimiliacijos dimensijos gali būti aktualios individui ir gali būti matuojamos individo lygmenyje; be to, Gordonas analizuoja amerikietišką patirtį, kurioje daugiausia vyravo individuali asimiliacija.
'Gordon often uses the term group, however **it seems that** he speaks about an individual's experience. All the assimilation dimensions can be significant for an individual and they can be measured individually; moreover, Gordon analyses the American experience where individual assimilation has been dominating.' [CorALit-H]

The inferential adverbials *regis* 'seemingly, apparently', *matyt* 'apparently, evidently' (traceable back to the infinitive *matyti* 'see') can have a salient epistemic overtone, e.g.:

(23) *Apie šį gyvenvietės raidos etapą yra išlikusių daug liudijimų [...]. Verta pažymėti ir tai, kad kaimo gyventojų kovą su pustomu smėliu, **regis**, turėjo*

patirti tuomet dar mažametis L. Rėza. [...] smėlio grėsmę Karvaičių gyven-
tojai pajuto jau apie 1764 m. [...].
'There are many oral reports providing evidence on this stage of the set-
tlement development. It is worth noticing that in his childhood, L. Rėza
apparently must have witnessed the fight of local people against drifting
sand. The population of Karvaičiai felt the threat of sand approximately
in 1764.'   [CorALit-H]

(24)   *Simonas šiame inventoriuje nebeminimas, **matyt**, tada jau buvo miręs.*
        'In this inventory, Simonas is no longer mentioned, **evidently** he has
        been dead by that time.'   [CorALit-H]

The author's inference in (23) is based on reports from oral sources about drift-
ing sand in 1764, which allows the author to assume that Rėza must have wit-
nessed the threat of sand when he was a small boy. The given assertion ('wit-
nessed the fight against drifting sand') cannot be regarded as factual and the
source of information is not one hundred per cent reliable. Moreover, it is the
author's inference, which means that the stance expressed is subjective and it
cannot be regarded as void of any equivocation. Thus, the choice of the eviden-
tial *regis* 'seemingly, apparently' here is also meant to hedge factuality of the
assertion made. Similarly in (24), the author's judgment is drawn from pure
speculations (inference based on conceptual evidence) because of the absence
of any record about Simonas in the inventory. Thus, the evidential adverbial
matyt 'apparently, evidently' bears a shade of cautiousness or reservation re-
garding the factuality of the assertion made ('he (= Simonas) has been dead by
that time'). The presence of the subtle context-dependent epistemic nuance can
be checked by applying a substitution test to detect the (non-)factual meaning
of the evidential marker. There is a clear-cut semantic opposition between the
evidential marker *matyt* 'evidently' and its adverbial phrase with *kaip* 'as',
namely *matyt* 'apparently, evidently' vs. *kaip matyt(i)* 'as can be seen'. In this
opposition, the basic difference between these markers is that the bare form
(*matyt*) lowers epistemic support, while *kaip matyt(i)* 'as can be seen' is
epistemically neutral; concomitantly, it is used to indicate that inference is
based on perceptual evidence, though conceptual evidence cannot be discarded
either. Compare the following examples, where in (25), the substitution of the
non-factual inferential *matyt* 'evidently' for the factual perceptual *kaip matyti*
'as can be seen, as is evident' is impossible. Similarly in (26), the substitution of
kaip matyti 'as can be seen', which bears no epistemic tentativeness, for *matyt*
'apparently/evidently', would render an utterly different reading, namely the

author's tentative assumption with a shade of reservation regarding the factuality of the assertion made, namely that sustainable surgery is not helpful.

(25) *Ežerų dydis ir forma kinta, kartais jie visai dingsta, **matyt**, išgaruoja.*
      'The size and form of the lakes vary, sometimes they disappear altogether, **evidently**, (they) evaporate.'   [CorALit-P]

(26) ***Kaip matyti**, tausojamosios operacijos nepadeda. Pagerėjimas esti tik laikinas.*
      '**As can be seen/as is evident**, sustainable surgery does not help. Recovery is only temporary.'   [CorALit-B]

Alongside a clear evidential meaning, *kaip matyti* 'as can be seen' has also an interpersonal meaning. As has been shown in a previous study (Usonienė 2015: 457), *matyt* 'apparently' is an author-oriented marker, while *kaip matyti* 'as can be seen' is more addressee-oriented. It is the author-oriented markers that are more likely to develop epistemic extension of uncertainty. The same meaning and function is applicable to the emerging evidential adverbials *matomai* 'obviously' and *regimai* 'obviously' derived from the non-agreeing *-ma* participles *matoma* 'see'.NAGR.PRS.PP, *regima* 'beheld'.NAGR.PRS.PP which function as sentence adverbs in the following examples:

(27) *Pagaliau posėdžiaujantiems, **matomai** tapo tvanku, nes visu platumu atidarė duris į laukiamąjį.*
      'Eventually for the people present at the meeting **obviously** it became stuffy because they opened all the doors leading to the hall.'   [CCLL-jour]

(28) *O gal atimti jūsų licenciją? Paskutinysis grasinimas **regimai** paveikė Klepavičių. Jo narsa kaipmat subliūško [...].*
      'Maybe you'll be deprived of your licence? Klepavičius was **obviously** affected by the last threat. His courage instantaneously vanished.'
                                                                          [CCLL-fic]

Moreover, the evidential adverbial *matyt* 'apparently, evidently' stands in a clear contrast to *regis*, *atrodo* and *rodos* in terms of different strength of epistemic support. Evidence to support this claim will be provided at the end of the present sub-section. The same kind of epistemic extension can be developed by the inferential *seem*-verbs functioning as CTPs (*atrodo/rodos(i), kad* '(it) seems/appears that') or parenthetical expressions[3] (for more detail see Section

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3 A distinction between matrix clauses and clause-initial parentheticals or comment clauses is a complicated issue. The basic criteria for distinguishing between matrix clauses and clause-

12.5). Their function is to mark the author's non-commitment towards the truth-value of the proposition asserted. Consider the following example in (29), where the adverbial *rodos* 'apparently' is used to mark hearsay, the reliability of which is not unequivocal, hence the presence of a tentative epistemic overtone cannot be denied, e.g.:

(29) *Dabar   jis,   **rodos**,   sunkiai   serga   ir   man nieko*
       now   he   **apparently** seriously be-ill.PRS.3 and I.DAT nothing
       neberašo.
       no-longer-write.PRS.3
       'Now he **seems to** be seriously ill and he doesn't write anything to me.'
       [CCLL-jour]

In (30) below, the inferential adverbial *atrodo* 'apparently' bears a shade of uncertainty because it makes the author's judgment about the assertion made ('the composer was no longer interested in the cycles') very tentative. Thus, inference is based on common sense knowledge, however the interpretation is very much author-dependent and cannot be considered veridical:

(30) *Pasiekus meninį rezultatą ciklai kompozitoriaus, **atrodo**, daugiau ne-*
       bedomino, nes menininkas nerodė jokių pastangų juos [...] tinkamai
       įvardyti.
       'When the artistic result has been achieved the cycles **seem to** have been
       of no interest to the composer anymore because he did not show any at-
       tempt to name them in any way.'   [CoraLit-H]

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initial parentheticals are considered to be that the latter are characterized by positional flexibil-
ity, semantic shift and non-addressability (Aijmer 1997; Boye and Harder 2007; Brinton 2008;
Kaltenböck 2009). In the light of the fact that sentence word order in Lithuanian is fairly free, it
can be even more problematic to distinguish between matrix clauses taking complementizer-
less clauses and clause-initial parentheticals. In the examples below, it is not absolutely clear
whether *atrodo* 'seem'.PRS.3 is a clause-initial parenthetical or a matrix clause and whether
matai 'see'.PRS.2SG is a parenthetical or a matrix clause:
(ii)   ***Atrodo**, kapo centrinė dalis galėjo būti apardyta.*
       '**It seems/apparently** the central part of the grave might have been destroyed.' [CorALit-H]
(iii) *Bet va, viskas susitvarkė, **matai**.*
       'But well, everything is fine, **you (can) see**.'   [CCLL-sp]
Though their morphosyntactic status can be controversial, their semantics is transparent. The
given perception verb-based expressions (CTPs, parentheticals, sentence adverbials) in
Lithuanian are used as inferential evidentials, they can acquire an epistemic extension of
uncertainty and some of them can develop further by functioning as textual and interactive
discourse markers (Usonienė 2012, 2013).

Similarly, the CTP *atrodo* 'it seems' can also have an epistemic extension, because the author is uncertain regarding the truth value of the embedded proposition and the only difference is formal, namely the presence of the complementizer *kad* 'that':

(31) *Neatsimenu, kas buvo toliau. **Atrodo, kad** buvau netekęs sąmonės. Gal kokias 15 sekundžių buvau apalpęs.*
      'I cannot remember what happened next. **It seems that** I have lost consciousness. I have fallen into a faint maybe for some 15 seconds.'

                                                                              [CCLL-jour]

It is mainly *seem*-based evidentials that are found to be used with the overtly expressed dative subject-experiencer. In such cases, the CTP *atrodo* '(it) seems' occurs with various adversative discourse markers to enhance the meaning of contrast and to emphasize the authorship of the stance expressed, e.g.:

(32) *Tačiau **mums atrodo**, jog apskritai **mūsų** samprotavimai yra teisingi.*
      'However **it seems to us** (= we think) that in general **our** speculations
      are true.'   [CCLL-non-fic]

The marker *rodos* 'seemingly, it seems' can be said to collocate exceptionally with the first person experiencer in the dative *man* 'to me' for the purpose of emphasis and contrast when the authorship needs to be identified overtly, e.g.:

(33) *Ne, ne, **man rodos** jūs klystate.*
      'No, no, **it seems to me** (= I think) you are wrong.'   [CCLL-jour]

There is also an adverbial *manrods* (< *man rodos* 'to me it seems') attested in the spoken sub-corpus of the CCLL, however its use should be considered occasional.

It is important to note that all the evidential adverbials dealt with above differ with regard to the degree of factuality or epistemic commitment, which is observed by many linguists (Mortelmans 2000; Plungian 2001; Aikhenvald 2004; Cornillie 2009; Wiemer 2010). The given subjective evaluation is a gradable and author-oriented dimension. *Atrodo*, *rodos*, *regis* 'apparently' can express a certain degree of uncertainty regarding the situation described, while *matyt* 'apparently, evidently' can imply a higher degree of the speaker's certainty. Therefore, it is not acceptable in the context which contains a counterfactual information, e.g.:

(34) *Kur mano raktai? **Atrodo/rodos/regis/*matyt** turėjau juos kišenėj, o dabar jų nėra.*
      'Where are my keys? I **seem to** have had them in my pocket, and now
      they are not there.'

Thus, the evidential meaning expressed by *matyt* 'evidently' correlates with a greater degree of factuality from the point of view of the author, while *atrodo* 'seemingly, apparently' bears a shade of epistemic overtone. Naturally, in so-called condition→result cases, when the situation contains a direct indication to certain conditions (expressed in an *if*-clause) upon which the author's prediction is completely dependent and non-cancellable, only nearly-factual inferentials (like *matyt* 'evidently') seem to be preferable, while the use of the ones that bear a hint of doubt is blocked, as can be seen in the following example:

(35) *Jeigu   neatėjo,*   ***matyt/*atrodo/*rodos/*regis***   *nenorėjo.*
     if   NEG.come.PST.3 evidently/apparently/seemingly   NEG.want.PST.3
     'If (s/he/they) hasn't come, **apparently/evidently** (s/he/they) didn't
     want to.'

Thus, we may speak of inferential adverbials in Lithuanian that express a higher/lower degree of author confidence regarding the factuality of the eventuality described.

12.3.2 Markers derived from one-word predicatives and adverbs

An evidential-epistemic overlap is also displayed by the marker *panašu* '(it is) likely, (it) seems', which morphologically coincides with the non-agreeing (formerly neuter) adjective *panašu* 'similar, like' (Tekorienė 1990) and semantically relates to the domain of comparison. It denotes comparison when it is used as clausal predicate with a PP, for example *Tai panašu į tiesą* 'It is similar to the truth'. The marker acquires evidential and epistemic functions when it occurs as a CTP with a *that*-clause (36) or as a parenthetical (37):

(36) *Iš tapysenos **panašu, kad** dailininkas vertina gyvą, spontanišką savi-*
     raišką, siekia perteikti psichologines būsenas abstrakčiomis tapybos
     priemonėmis.
     'From the way it is painted **it seems that** the artist appreciates vigorous,
     spontaneous self-expression and tries to portray psychological states by
     abstract means of painting.'   [CCLL-jour]

(37) *Tačiau Robertui toks moters elgesys, **panašu**, nepasirodė keistas.*
     'However, Robert **apparently** did not find the woman's behavior
     strange.'   [CCLL-jour]

In contrast to the CTP *panašu* 'it is likely, it seems' (36), the parenthetical *panašu* 'apparently' (37) marks discursively secondary information, i.e. it "has

only a concomitant function in relation to the rest of the utterance" (Boye and Harder 2007: 584). Such instances of use can be regarded as "adverbial CTP clauses" (Boye and Harder 2007: 581), which display distributional and functional affinities with sentence adverbials and "accordingly, they may develop into genuine adverbs" (Boye 2016: 119). The latest studies have shown that a wide range of adjectival, verbal and nominal CTPs in Lithuanian are "a very productive source in the adverbialization process" (Usonienė 2013: 95, 2015). On functional-semantic grounds the parenthetical *panašu* 'apparently' can be related to a class of stance adverbials (Smetona and Usonienė 2012), in a similar manner to the adverbials *matyt* 'apparently, evidently', *regis* 'seemingly' and *atrodo* 'apparently'. However, it should be noted that the distinction between the use of *panašu* as a zero-complemented CTP and a clause-initial parenthetical is not always clear, as shown in the following example:

(38) *Antrajame veiksme […] žiūrovų salėje žygiuoja keistuolis ispanas – Petras Venslovas su viduramžių riterio šarvais – **panašu**, tik ka pasiskolintais iš Karo muziejaus.*
'In act two in the audience hall a strange Spaniard is walking along the stage – it is Petras Venslovas wearing knightly armour from the Middle Ages – **it looks like/it seems/it is likely** the armor has just been borrowed from a War museum.' [CCLL-jour]

Both the marker *panašu* 'likely, it seems' and the propositional content in (38) can be addressed by *really* ('Does it really seem to you that the armor has just been borrowed from a War museum?' and 'Has the armor just really been borrowed from a War museum?') and can express the main point of the utterance (Boye and Harder 2007). The possibility of denying the propositional content ('It seems that the armor has just been borrowed from a War museum but in fact it has just been designed for the purposes of the current performance') foregrounds the CTP-use of *panašu* 'likely, it seems'. The author may be guessing that the medieval armor worn by the actor may have been borrowed from a museum, for the perceptual evidence at hand does not allow for drawing a more valid conclusion. Moreover, *panašu* 'likely, it seems' used as a CTP can be negated (e.g., *nepanašu, kad* 'unlikely that'). If perceptual evidence available to the author leaves little doubt that the armor has been borrowed from a museum, *panašu* 'likely, it seems' may express a higher degree of epistemic commitment and function as a clause-initial parenthetical. The correlation between the syntactic status of an evidential marker and its degree of epistemic commitment has been noticed with reference to the predicatively used adjective *alleged* in the construction *it is alleged that* and the adverb *allegedly* in English (Huddleston

and Pullum 2002: 769) and the predicative and particle use of *poxože* in Russian (Wiemer and Letuchiy, this volume). Exploring the syntactic status and functional distribution of Dutch *('t) schijnt* 'it seems', Van Bogaert and Colleman (2013: 497) maintain that "initial *('t) schijnt* followed by a 'complement clause' with main clause word order [...] represent[s] an initial stage of a particulization" and consider such cases as "a hybrid between matrix clause and discourse marker". The syntactic status of *panašu* 'likely, it seems' in (38) could be possibly disambiguated by carrying out a prosodic analysis, as shown in studies into clause initial *I think (that)* and *I believe (that)* (Kaltenböck 2009; Dehé and Wichmann 2010).

In a similar manner to CTPs and adverbials based on verbs of visual perception or seeming, the CTP *panašu* 'it is likely, it seems' (39) and the parenthetical *panašu* 'apparently' (40) denote primarily inferences based on perceptual or conceptual evidence:

(39)   *Reikia padaryti nuotrauką [...] – apžiūrėjęs petį, nusprendė gydytojas. –*
       ***Panašu, kad** liestas kaulas.*
       'It is necessary to do an X-ray – having looked at the shoulder, the doctor
       decided. – **It seems that** the bone has been affected.'   [CCLL-fic]

(40)   *Netgi ūkininkams, **panašu**, nepavyks išvengti mokesčių, mat numatoma,*
       jog pelno mokestį turės mokėti žemės ūkio bendrovės, o ūkininkams bus
       primintas PVM mokestis.
       'Even farmers **apparently** will not avoid taxes since farm companies will
       have to pay income tax, while farmers will be reminded of VAT.'

                                                                      [CCLL-jour]

Although visual evidence in (39) as well as conceptual evidence in (40) could be qualified as reliable sources of information, the propositions modified by the marker under study imply uncertainty. In (39), the visual evidence (the photo) at hand does not make it clear to the doctor whether the bone has been touched or not. Even though visual perception is regarded as the most reliable source of information (Willett 1988; Plungian 2001), it may be deficient, thus leading to inferences expressing doubt. The author's lack of full knowledge in (40) is strengthened by the future form *nepavyks* 'will not succeed' and the participle *numatoma* 'foreseen', which relate to intentions and predictions about which the author can never be sure. Insufficient sources of information triggering uncertainty are also clearly marked in the following contexts:

(41)　*Kol kas neaišku, ar vyks Lietuvos ir Moldovos rinktinių mačas, kuris buvo numatytas balandžio 23 dieną. **Panašu, kad** Moldovos futbolo federacija atsisakys kelionės į Lietuvą.*
'So far it is not clear whether the match between the Lithuanian and Moldovian teams, scheduled for April 23, will take place. **It seems that** the Moldovian football federation is not coming to Lithuania.'　　　　[CCLL-jour]

(42)　*Kažkas nutiko, bet kas? Konfliktas šeimoje? Nutrūkę santykiai su Alisa? Nusivylimas dėl ne itin šilto jo knygos įvertinimo? **Panašu, kad** taip galėjo būti, bet gal ir ne [...].*
'Has something happened? But what? A conflict in the family? Breaking up with Alisa? Disappointment with a rather critical evaluation of his book? **It seems that** it may have been the case, but maybe not.'　　　　[CCLL-jour]

(43)　*Laukia romantiški meilės nuotykiai, kurie gali baigtis rimtu jausmu. Tačiau sutuoktiniai, kurių gyvenimas klostosi nesėkmingai, **panašu**, išsiskirs galutinai.*
'It is likely that you will experience love adventures that may end up with a serious feeling. However, married couples who have a difficult relationship **apparently** will get separated for good.'　　　　[CCLL-jour]

In (41), a lack of full commitment expressed by the CTP *panašu* 'is likely, it seems' is signaled by explicit marking of uncertainty (the predicative *neaišku* 'not clear' and the complementizer *ar* 'if') in the preceding discourse. Since there is no information whether the match between the Moldavian and Lithuanian teams will take place, the prediction that the Moldavian football federation will not come to Lithuania seems possible but not certain. In (42), the type of evidence underlying the inference is not clear and the author's uncertainty is foregrounded by four questions in the preceding discourse. In (43), the parenthetical *panašu* 'apparently' is used in the context of horoscope prediction, which seems to be based on evidence that cannot be fully verified. In the latter two examples, without clearly identified sources of inference, the CTP *panašu* 'it is likely, it seems' (42) and the parenthetical *panašu* 'apparently' (43) reveal merely the author's low commitment to the proposition. *Panašu* used as a CTP 'it is likely, it seems' (44) and a parenthetical 'apparently' (45) may also be attested in reportive contexts:

(44)　**Panašu, kad** *Šiaurės ir Centrinėje Europoje jau ikiromėniškajame, o vėliau ir romėniškame laikotarpyje Z/Z siūlų sukimo kryptis buvo tiek drobinio, tiek ruoželinio pynimo audinių pagrindas (Bender-Jürgensen, 1986, p. 346).*

'**It seems** that in Northern and Central Europe already at the pre-Roman
and later at the Roman period, Z/Z direction of twisting thread was the ba-
sis of both striped and linen weaving (Bender-Jürgensen, 1986, p. 346).'

[CorALit-H]

(45) *Beje, valdyti infliaciją ir taupyti valstybės pinigus programiniuose
      dokumentuose žada ir opozicinė Darbo partija. Tačiau darbiečiai, **panašu**,
      pasisako prieš pelnų reguliavimą. Jie net nepritarė minėtoms Kainų
      įstatymo pataisoms.*

      'By the way, in its manifesto, the opposing Labor Party also pledges to
      control the inflation and save the government budget. However, the La-
      bour, **it seems**, are against the regulation of profits. They did not even
      back up the mentioned revisions of the law on Prices.'   [CCLL-jour]

In (44) and (45), the inferences are based on written sources available to the au-
thor. However, the historical times referred to in (44) are distant and therefore
some reservation as to the truthfulness of the proposition remains. In (45), the
author has access to the source of inference (the Labor party's campaign program)
but does not know how to interpret it. The parenthetical *panašu* 'apparently' re-
duces the author's responsibility for the claim if the information in the proposition
happens to be verified by alternative interpretations or points of view. The mean-
ing of uncertainty of *panašu* 'likely, it seems' used both as a CTP and as a paren-
thetical can be motivated by the connection of the marker to the meaning of simi-
larity. As attribution of similar features to people and things usually entails
subjective evaluation, it may also trigger some uncertainty. Thus it can be con-
cluded that uncertainty pertinent to the meaning of similarity has also been trans-
ferred to the inferential meaning of *panašu* in all types of contexts.

Inferential adverbs in Lithuanian can be traced not only to verbs (*matyti*
'see', *regėtis* 'see, behold', *atrodyti* 'appear') or non-agreeing adjectives (*panašu*
'likely') able to function as CTPs, but also to morphological adverbs which de-
rive from the semantic domain of perception, e.g. *akivaizdžiai* 'evidently' and
aiškiai 'clearly'. The lexical meaning of both adverbs is directly related to visual
perception. The adverb *akivaizdžiai* is formed from the adjective *akivaizd-us* (*aki*
< *ak-is* 'eye' + *vaizd* < *vaizd-as* 'view' + *-us*.NOM.SG.M) 'visible' and the adverb
aiški-ai from the adjective *aišk-us* 'clear'. The adverbial morphology of both
markers is transparent from the derivational suffix *-(i)ai* '-ly'. Similar to their
equivalents *obviously* and *clearly* in English (Simon-Vandenbergen and Aijmer
2007; Carretero and Zamorano-Mansilla 2013), the adverbs *akivaizdžiai* 'evident-
ly' and *aiškiai* 'clearly' denote manner but not inferences (indirect evidentiality)

when they occur in clauses that designate states of affairs (Boye 2010), as in the following examples:

(46) *Akys buvo užmerktos, bet viską **mačiau labai aiškiai** [...].*
      'My eyes were closed but I could **see** everything **very clearly**.'   [CCLL-fic]

(47) "*Po pirmojo Seimo posėdžio **labai akivaizdžiai supratau**, kaip sunku valdyti valstybę", – sako ji.*
      '"After the first session of the Seimas I **very clearly** (lit. 'evidently') **realized** how difficult it is to rule the country", – she said.'   [CCLL-jour]

(48) *[...] **aiškiai** kiekvienam **pasakiau**, ką kuris turi daryti.*
      'I **clearly said** to everyone what they had to do.'   [CCLL-fic]

The adverbs *aiškiai* 'clearly' and *akivaizdžiai* 'evidently' above modify the verbs of perception (46), cognition (47) and communication (48), which "refer to different dimensions of human information processing behavior, as normal 'facts in the world' which one can observe, know, and talk about" (Nuyts 2001: 114). In the examples above the adverbs display narrow scope and express "the meaning based in the sociophysical world" (Traugott 1989: 46). Degree modifiers, for instance *very* (46)–(47), *so* or *quite* highlight the manner use of the markers. The adverbs *akivaizdžiai* 'evidently' and *aiškiai* 'clearly' acquire an evidential function when they take scope over a proposition (Boye 2010), as shown in (49)–(51). Although syntactically they may take scope over phrases (51), semantically their scope is propositional:

(49) *Penktadienio pavakare Palanga atsigavo. Žmonių padaugėjo keliagubai, kurortas **akivaizdžiai** atgijo [...].*
      'On Friday evening Palanga was bustling with life again. The number of people increased several times, the resort **evidently** revived.'   [CCLL-fic]

(50) *Įkvėpimas **aiškiai** paklūsta proto specializacijos dėsniams. Jei visas intelektualinis dėmesys yra skirtas, pavyzdžiui, futbolui, poetinė inspiracija nekils.*
      'Inspiration is **clearly** linked with one's cognitive capacities and interests. If the whole intellectual focus is on football, poetic inspiration will not come.'   [CorALit-H]

(51) *Tiek to, pasaulis įgauna **akivaizdžiai** dekadentines formas.*
      'Never mind, the world is **evidently** taking on decadent forms.'   [CCLL-fic]

The possibility of fronting these adverbials or substituting them for the impersonal predicative adjectival construction (a CTP construction with a *that* clause) proves their propositional scope; the formats of these expressions are thus equivalent:

(52)   *kurortas **akivaizdžiai** atgijo*   'the resort **evidently** revived'
       ≅ ***akivaizdžiai** kurortas atgijo*   '**evidently** the resort revived'
       ≅ ***akivaizdu**, **kad** kurortas atgijo*   'it is **evident that** the resort revived'

(53)   *įkvėpimas **aiškiai** paklūsta*   'inspiration is **clearly** linked with'
       ≅ ***aiškiai** įkvėpimas paklūsta;*   '**clearly** inspiration is linked with'
       ≅ ***aišku**, **kad** įkvėpimas paklūsta*   'it is **clear that** inspiration is linked with'

The evidential use of *akivaizdžiai* 'evidently' and *aiškiai* 'clearly' in (49)–(50) is signaled by the sources of information retrievable from the context, which highlights the evidential use of the inferential adverbs (Wiemer and Kampf 2012). In (49), the inference that the sea resort has become livelier is drawn from the author's direct observation of the place. Similarly, in (51) the inference is drawn from observation, though the contextual clues are not indicated. In (50), the inference derives from conceptual evidence provided in the following discourse. The Lithuanian perception-based adverbs functioning as inferentials display parallels with their evidential equivalents in English (Simon-Vandenbergen and Aijmer 2007), French, Italian, Spanish (Squartini 2008; Marín-Arrese 2009), Latvian (Chojnicka 2012), Bulgarian (Wiemer and Kampf 2012) and other languages, which implies a universal semantic-functional potential of perception-based adverbs. In contrast to manner adverbs, the evidential adverbs *akivaizdžiai* 'evidently' and *aiškiai* 'clearly' express the author's evaluation of reality, which unavoidably highlights the subjective perspective, for example the negative judgment of a person (54), criticism of a law (55) or a negative feeling (56):

(54)   *Ilgai žvelgiu į jį: sudžiūvęs, net vėjo perpučiamas – **aiškiai** neprisitaikęs prie rinkos.*
       'I have been looking at him for a while, he is very thin, even easily blown by the wind – **clearly** not adapted to the market.'   [CCLL-fic]

(55)   *Įstatymo [...] nuostata, numatanti žemės ūkio subjektų (įmonių, ūkininko ūkių) darbuotojams individualų NPD tik 330 Lt per mėnesį (anksčiau buvo 225 Lt), yra **akivaizdžiai** nepakankama.*
       'A law that is expected to introduce individual tax free payments of only 330 litas per month (it used to be 225 litas) for subjects of agriculture (companies, farmers) is **evidently** inadequate.'   [CorALit-S]

(56)   *Žmogiukas žaibiškai mosteli ranka, jis **aiškiai** užpyksta.*
       'The guy waved his hand hastily, he **clearly** got angry.'   [CCLL-fic]

In the examples above the evidential adverbs contribute to the validity of the author's statements and eliminate a possibility of another point of view unless some new sound evidence is provided. They "make the speaker's authority explicit" (Hoye 1997: 179) and add to the effectiveness of argumentation in discourse. Although there are clear-cut cases of the evidential or manner use of the adverbs *akivaizdžiai* 'evidently' and *aiškiai* 'clearly', in a number of cases they may display functional ambiguity, as in the following examples:

(57) *Šioje plotmėje **akivaizdžiai** skiriasi realus objektas ir jo atvaizdas ženklas turi natūralų referentą: žodis „medis"reiškia medį.*
'At this level a real object **evidently** differs and its sign has a natural referent: the word "tree" means a tree.' [CorALit-H]

(58) *[...] už nugaros **aiškiai** šniokštavo traukinys, o priekyje šalia bėgių klūpojo žmogus.*
'in the back one could **clearly** hear the train coming, and in the front close to the rails a man was kneeling.' [CCLL-fic]

In (57) and (58), the adverbs denote manner ('a real object differs in a clear (lit. 'evident') way', 'one could hear the arrival of the train in a clear way'), but they may also have the interpretation of 'it is evident that a real object differs' and 'it is clear that the train was coming'. Functional ambiguity illustrated above may be explained by the close affinity between manner and evidential meaning. Simon-Vandenbergen and Aijmer (2007: 166) claim that "if a state of affairs comes into being in a very clear manner, it is easy to see, hence it is clear to the speaker that it has taken place". Thus, the meaning 'in an obvious way / in a clear way' is close to the meaning of 'it is obvious that/it is clear that'.

12.4 Reportives

In Lithuanian, reportive evidentiality is realized mainly by verb-based CTPs and adverbial expressions. The findings of a corpus-based quantitative analysis (Usonienė 2013) show that the most frequent CTPs are non-agreeing passive participle forms (or participial *-ma* forms) of cognitive verbs like *žinoma* 'know'.NAGR.PRS.PP, *teigiama* 'state'.NAGR.PRS.PP, *manoma* 'think'.NAGR.PRS.PP, *suprantama* 'understand'.NAGR.PRS.PP, sometimes also *-ta* forms like *pastebėta* 'notice'.NAGR.PST.PP. When functioning as reportive evidentials, all of them can undergo adverbialization as in (60) (Smetona and Usonienė 2012; Usonienė 2013, 2015), or they are used as CTPs with clausal complements (59), (61), e.g.:

(59) *Nėra vieningos nuomonės, ką ši šaknis tiksliai reiškia, tačiau **manoma, jog** senosiose kalbose ji žymėjo brangaus medžio ar augalo pavadinimą [...].*
'There is no unanimous opinion what this root really means, however **it is thought that** in ancient languages it referred to the name of an expensive tree or plant.'   [CorALit-H]

(60) *Pagaliau ikimokyklinio amžiaus vaikai, **manoma**, nėra pajėgūs teikti patikimą informaciją apie save (Angold and Egger, 2004).*
'Eventually, pre-school children **assumably** are incapable to provide reliable information about themselves (Angold and Egger, 2004).'
[CorALit-S]

(61) *Iš ankstesnių darbų [4] **yra žinoma, kad** rauginimo proceso pradžioje kazeino dalelių dydis turi tendenciją mažėti.*
'From previous studies [4] it **is known that** at the beginning of the fermentation process the size of the casein particles tends to grow smaller.'
[CorALit-B]

In (60), the organization of the attribution of authorship to the claim conveyed by the sentence is as follows: first, the evidential marker *manoma* 'assumably' is used to indicate that the source of information is second-hand, and then at the very end of the sentence there is a reference provided to document the sources of information reviewed, namely "(Angold and Egger, 2004)". Moreover, *manoma* 'assumably' allows the author to report only on the existing opinion about the children's behavior without any assessment of the validity of the sources of information or the truth value of the proposition expressed. When used in the *as*-type adverbial construction, the reportive *kaip žinoma* 'as known, be known to' in (62) performs two functions by marking the source of information and by establishing the author-addressee dialogue:

(62) *[...] Wallersteinas iš F. Braudelio „pasiskolino" erdvės ir laiko supratimą. [...] **Kaip žinoma**, Braudelis visą pasaulį skirsto į keletą koegzistuojančių ekonominių pasaulių, vienas kurių yra Europos ekonominis pasaulis.*
'Wallerstein has adopted the conception of space and time from F. Braudel. Braudel **is known to** divide the whole world into a few coexisting world-economies, one of them is the European world-economy.'
[CorALit-H]

This marker is most frequent in non-fiction and journalistic discourse, on the contrary its use in fiction and spoken discourse is not very common. In fiction, *kaip žinoma* 'as known' can be used as an echoic marker because it does not "presuppose a real utterance produced at a certain time by a certain person"

(Holvoet 2018: 248). Its function is to introduce some very well-known general knowledge of the world like 'what everybody knows, rumor has it', which is very much context-dependent, as in the following example when quoting a well-known proverb (*Walls have ears*):

(63)   *[...] bet ...* **kaip žinoma**, *sienos girdi, nors ausų neturi.*
        'But ... **as known** walls can hear though they don't have ears.'   [CCLL-fic]

In the given case, *kaip žinoma* 'as known' could be regarded as an echoic use marker. Conversely, in a science communication context (as in the passage from the humanities text above (62)), its basic meaning and function is to introduce a source of information on the assertion made by way of establishing a tentative interaction with the reader. This meaning and function are most characteristic of the reportive parenthetical expression *kaip pranešama* 'as reported' and a CTP *pranešama, kad* 'it is reported that', e.g.:

(64)   **LT: *Pranešama, kad** kompensacijų mokėjimas neturėjo jokio poveikio atskirų donorų grupių sergamumo bei ligotumo rodikliams.*
        EN: *It is reported that granting this allowance has not shown any indication of an effect on prevalence and incidence data relating to the groups of donors.*   [Glosbe: EurLex2]

(65)   **LT**: *Nepaisant šios direktyvos buvimo, tinkamai apdorojama, **kaip pranešama**, tik trečdalis Bendrijos elektros ir elektroninės įrangos atliekų.*
        EN: *Despite the existence of the Directive, only one third of electrical and electronic waste in the Community **is reported as** appropriately treated.*
                                                                    (Glosbe: EurLex2)

Similarly, *kaip manoma* 'as believed/assumed' is used to code the author's source of information, which is indirect. Though this reportive marker is based on a verb of propositional attitude (*manyti (kad)* 'think (that)'), it does not have any epistemic extension. The purpose of choosing this marker is to indicate the author's non-responsibility for the opinion reported on. The author does not question the truth value of the propositional content asserted though s/he does not necessarily share this point of view. This is just a neutral way of stating the fact that such an opinion existed at a given point in history and the author is aware of it.

(66)   *Pirmąsias gripo epidemijas aprašė Hipokratas. Lotyniškasis pavadinimas* influensa *siejamas su XIX amžiaus epidemija Italijoje, kurią, **kaip manoma**, sąlygojo žvaigždės (lot.* influensa*).*

'The first flu epidemic outbreaks were described by Hippocrates. The Latin term *influenza* is related to the 20th century epidemic in Italy which **as thought/believed** was caused by the stars (Lat. *influensa*).' [CorALit-B]

The reportive adverbial *žinia* 'reportedly' has evolved from the noun-based CTP *žinia* 'message, news'. Consider the following examples, where the adverbials *žinia* 'reportedly' and *kaip žinia* 'as known' are used to refer to hearsay:

(67) *Pritapęs prie gerų meistrų pagalbininku, [...] perėmė užsakymus. Meistrai, žinia, pyko, stengėsi suniekinti iš kaimo atsiradusį pusmeistrį.*
'When he became a help to good masters, he swept the orders from them. **Reportedly** the masters were very angry, they tried to stigmatize the rural apprentice.' [CCLL-fic]

(68) *[...] savivaldos įstaiga – magistratas – atsirado tik tada, kai valdovas suteikė savivaldos teises. Kaip žinia, 1569 m. gruodžio 7 d. Žygimantas Augustas Merkinės [...] miestiečiams suteikė Magdeburgo teisę [...].*
'administrative autonomy – a magistrate – came into being only when the king granted the rights of self-government. **Reportedly** in December 7th 1569, Sigismundus Augustus granted the *Magdeburger Recht* to the citizens of Merkinė.' [CorALit-H]

These reportive markers have no epistemic overtones and they are not author-oriented like the inferentials *matyt* 'apparently, evidently' and *rodos* 'apparently'. It is also worthwhile mentioning that bare forms of these reportive makers (CTP-based parentheticals) are much more frequent than their usage with *kaip* 'as'.

12.4.1 ACCORDING TO-type markers

There are two types of constructions that are used to code reportive evidentiality in contemporary Lithuanian. The first one is preposition-based and the other is OPINION-noun-based. All of them are syntactically mobile parentheticals with a propositional scope. Both of them contain an NP which overtly refers to an external (other than the author) source of evidence, however some of the given reportives can indicate an internal source of evidence, i.e. the author or addressee, as in the ACCORDING TO-construction in English (see Marín-Arrese, Carretero and Usonienė, this volume). The realization of the source of evidence varies between NPs marked with the genitive (complements of *pasak* and *anot*) and NPs marked with the accusative (complements of *pagal*).

The ACCORDING TO-construction in Lithuanian represented by the markers *pasak/anot/pagal + NP* is used to mark an overt and straightforward indication of the source of information: either it is an identification of the authorship of an opinion (or quote) with an NP denoting an animate entity as in (69)–(71) or an indication of the source of hearsay, which can be legends, myths, laws, periodicals, etc., as in (72)–(73):

(69) *Medžius ir kitą augaliją, **pasak E. Andrė**, pirmiausia vertiname moksliškai, toliau praktiškai ir pagaliau meno išraiškos požiūriu.*
'Trees and other vegetation, **according to E. André**, are first of all evaluated on a three level basis: scientific, practical and eventually their artistic value is taken into account.' [CorALit-T]

(70) *Mindaugas tapo Lietuvos valdovu, ėmęs, **anot amžininkų**, valdyti pats. Vienvaldžiai buvo ir jo įpėdiniai.*
'Mindaugas became Lithuania's ruler, when he started **according to the contemporaries** ruling himself. His heirs were also autocratic rulers.'
[CorALit-H]

(71) *Todėl, **pasak Bistro**, „šiandien reikia rodyti maksimumą kūrybinės, drąsios iniciatyvos".*
'Therefore **according to Bistra** "today maximum of creative, brave initiative should be demonstrated".' [CCLL-non-fic]

(72) *Jis visiškai numarino savo kūną ir, **anot legendų**, valgydavo tik vieną ryžio grūdelį per dieną.*
'His body was utterly exhausted and **according to the legends** he used to eat only one grain of rice per day.' [CCLL-fic]

(73) ***Pagal įstatymą** tau priklauso pusė [...].*
'**According to the law** half belongs to you.' [CCLL-fic]

It is the *pagal*-X alternative that can indicate self-reference because the X position can be filled in by the pronoun *mane* 'myself'. It can also contain the pronoun *tave* 'yourself' and refer to the addressee as a source of evidence, e.g.:

(74) *[...] labai griežtai vertino, **pagal mane** tai per griežtai buvo.*
'The assessment was very strict, **to my mind** it was too strict.' [CCLL-sp]

The least frequent is the alternative of the construction headed by the preposition *pagal*, because its use is not approved by the State Commission of the Lithuanian Language. The most common of the three is ***pasak** X* 'according to X'. Its morphology shows that it must have evolved from the prefixed form of the saying verb ***sak**-y-ti* 'to say', namely ***pa-sak**-y-ti* PFX-'say'-SFX-INF.

The OPINION-noun-based construction containing the head nouns *nuomonė* 'opinion', *manymas* 'opinion, way of thinking', or *supratimas* 'understanding' in the instrumental case and (cf. Pol. *zdanie* 'opinion' in Wiemer and Socka, this volume, Section 11.3.3) is also very frequent in contemporary Lithuanian, especially in journalistic and spoken discourse, e.g.:

(75)   ***Mamos nuomone**, didžiausia dovana – meilė [...].*
        '**In (our) mother's opinion**, the greatest present is love.'   [CCLL-jour]

(76)   ***Mūsų manymu**, karjeros sąvoka yra platesnė [...].*
        '**In our opinion/To our mind**, the notion of career is broader.'   [CCLL-jour]

(77)   *Tauragėj, **mano supratimu**, iš viso keista padėtis.*
        'In Taurage, **to my understanding**, the situation in general is strange.'
                                                                       [CCLL-jour]

As a rule the most common coding of a source of opinion is an animate subject denoted by a noun in the genitive case, however occasionally it can be a newspaper, organization or a ministry. The head nouns in the given parenthetical NP can have a proper noun in the genitive case or a possessive pronoun *mano* 'my', *jo/jos* 'his/her' or *tavo/jūsų* 'your (SG/PL)' to specify the source of opinion. Consider the following examples:

(78)   ***"Le Monde" nuomone**, "Sokratas irgi nerašė knygų [...].*
        '**(According to) the opinion of *La Monde***, Socrates did not write any
        books.'   [CCLL-jour]

(79)   *Tačiau bėda ta, kad Saulė ir Andrius, **tavo nuomone**, yra visiški nuobodos.*
        'However the problem is that Saule and Andrius, **in your opinion**, are
        absolute bores.'   [CCLL-jour]

Another very common Lithuanian parenthetical expression based on the container metaphor and corresponding to the English *to my mind* is *mano galva* the literal translation of which would be '(according to) my head.INS', e.g.:

(80)   *Blogiausia, **mano galva**, nieko nedaryti [...].*
        'The worst thing, **to my mind**, is to do nothing.'   [CCLL-fic]

Again, this is a means of expression that is used to code a source of evidence which is internal; it is the author's self-reference. Alongside internal, addressee-oriented reference, i.e. external source of evidence can be also expressed by using possessive pronouns ***tavo** galva* 'according to **your** head/according to you', ***jo** galva* 'according to **his** head/according to him', etc.

12.5 Distancing markers

There exists a long list of adverbials which in previous studies (Wiemer 2007, 2010) have been regarded as reportives. Mention can be made of a few most common expressions: *neva*, *tarsi/tarytum*, *tariamai*, *esą*, *atseit, girdi*. Their English translation correspondences are found to be *as if*, *supposedly*, *allegedly*, *seem/appear to*, *kind of*. However, in one of the latest contrastive studies on reportive evidentials in Lithuanian, doubts have arisen regarding the evidential value of the markers *atseit*, *neva*, and *esą* (Usonienė and Šolienė 2017), where they have been considered to be distancing markers. There is also a third point of view (Holvoet 2018) according to which the three adverbials are dealt with in the light of the non-evidential notions of quotative and echoic marking as contrasted to epistemic modality and evidentiality. It is worthwhile mentioning that the two latest studies mentioned above seem to agree on a few points, namely these markers express author attitude and they are used to denote distance between the author and the assertion made. The present analysis offers a slightly varied interpretation of these lexical hearsay markers in Lithuanian. We claim that the basic function of all these expressions is to mark distance in narrative discourse, and they will be referred to as 'distancing markers' (cf. Swan 1988; Vandelanotte 2009), for short: DstMs. This means that we make a distinction between markers of indirectness[4] that are unmarked in terms of the information source specification, and markers of indirect evidentiality (inferential and reportive) which mark, or specify, information source. Among markers which specify inference (*matyt* 'evidently', *rodos* 'apparently') or hearsay (*(kaip) žinia* '(as) known', *(kaip) manoma* '(as) believed/assumed', *(kaip) pranešama* '(as) reported'/'reportedly') there are others, like *atseit*, *neva*, *esą*, which are neutral in this respect. They do not show any transparent lexical relation to expressions that are usually associated with the semantic sources of evidential markers (i.e. sensory or cognition vocabulary, etc.), which might serve as an explanation why they are not found as realizations of reportive evidentiality in contemporary Lithuanian in a cross-linguistic perspective (Usonienė and Šolienė 2017). In the following example below, the author has chosen the distancing marker

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[4] This is not the notion of indirectness involved in politeness strategies (Brown and Levinson 1987), but indirectness related to the specific way the author presents his/her stance towards the narrated content in the narrative discourse. It can be best explained in terms of 'conceptual distance' (Danaher 2001), which is based on metaphorical extension (Sonnenhauser 2015; Zeman 2015). The given coding of distance allows the author to introduce certain assertions by disclaiming his/her authorship.

atseit to introduce an assertion the source of which can only be pure speculations and these speculations are utterly unsupported by proper evidence.

(81)   *Kodėl sesutės tokios piktos ir gaili vaistų nuo skausmo?* **Atseit**, *priprasiu prie narkotikų. – Skauda? – pratariau. – Ypač – naktimis.*
'Why are the hospital nurses so angry and don't give painkillers? **DstM** I'll get used to narcotics. – Is it painful? – I asked. – Especially at night.'
[CCLL-fic]

There are no clues to indicate or prove that somebody has produced an utterance about harmful effects of medications used. In other words, it is not clear whether it might have been a case of direct speech (*You'll get used to narcotics*) or it is common-sense knowledge that narcotics are addictive drugs and the author is self-addressing himself. Special attention should be paid to the fact that in the coding of the proposition under the scope of the DstM *atseit*, there is a switch to the 1st person verb form *priprasiu* 'I will get used to', which in the given case can be a characteristic feature of indirect speech, however the basic argument is that it is very doubtful and actually unbelievable that the given speech-act might have taken place in reality, i.e. that the nurses might have used the term *narcotics* instead of *antianalgesics* or *painkillers*. Then, a more likely explanation might be that the author's claim is a kind of summing-up based on various types of evidence (common sense knowledge, hearsay, deduction, patient's background experience, etc.), which means that the author is not reporting. On the contrary, the given case should be regarded as coding of a kind of unattested hearsay. In the light of the vagueness of evidence available, the basic purpose of choosing the given marker is to signal non-authorship of the assertion made. Moreover, we cannot prove that this is self-inference and self-reference, either. Therefore we cannot regard it as a quotative or echoing marking proper. The sole purpose of choosing the DstM *atseit* is to send the following message: 'I am not saying that any of the nurses said this, moreover, this is not what I am saying either but this is what people usually say when they speak about taking medicines and harmful side effects that might occur'. Thus, the most general meaning that seems to cover all shades of meaning discussed in this is distancing, which can imply indirectness. The same kind of distancing is expressed by the marker *esą* in the following example:

(82)   *[...] Virginijus su šoferiu truktelėjo po burnelę romo. Uošvienė pamačiusi subruzdo: šoferiui* **esą** *negalima, rytoj anksti važiuoti.*
'Virginijus and the driver had a gulp of rum. Mother-in-law got anxious when she saw it: the driver **DstM** is not allowed to drink, he will have to drive tomorrow.'
[CCLL-fic]

The clause which contains the DstM *esą* can be regarded as coming close to indirect speech inasmuch as the attribution of authorship is shifted from the author-narrator to the participant of the reported situation *mother-in-law* in (82). Though the most common position for this marker is initial as in (83) and (84) below, medium is also frequent as in (82). We do not deny the possibility of existence of an echoic meaning, however one cannot deny the fact that especially in the journalistic discourse it is of vital importance for journalists to shift the responsibility of the assertions made from themselves to somebody else, because they do not necessarily approve of the claims made especially in discussions about burning issues of present-day realities. See the following example:

(83) *[...] o Jūs manote, **kad** yra gerai, **jog** esama vargšų, **esą**, jie patys kalti? – Jokiu būdu.*
'And do you think **that** it is good **that** there are the poor, **DstM/DM** it is their own fault? – Definitely, not.' [CCLL-jour]

The DstM *esą* is multifunctional and it seems to perform two functions in the given example. The main purpose of choosing *esą* here is to disclaim authorship of the assertion made and to indicate that this opinion might be or is held by some members of community. However, one cannot deny the fact that it definitely can function as an elaborative discourse marker *t.y.* 'i.e./namely' to introduce more detail, which is necessary to specify the assertion made. The given claim could be supported by the fact that the DstM *esą* can also be used to simply signal the point where a quote is going to be introduced, e.g.:

(84) *[...] artimiausiu metu galima laukti įvairiausių įvykių, ir **esą** „bus labai gaila, kad gaisras Europoje prasidės nuo Lietuvos".*
'In the near future one can expect various events and **DstM** "it would be a great pity that Lithuania will start the fire in Europe"'. [CCLL-non-fic]

Moreover, a contrastive study carried out by Usonienė and Šolienė (2017) claims that the most common translation correspondences (TCs) of the English *reportedly* in Lithuanian are *report*-verb- or noun-based expressions, i.e. *as*-parentheticals (*kaip*) *pranešama* 'as reported' or complement-taking predicates *pranešta (kad)* 'it is/was reported (that)', e.g.:

(85) **EN: *Reportedly** he is currently restrained.*
**LT: *Kaip pranešta (*'as reported'*), šiuo metu sulaikytas.*
[Usonienė and Šolienė 2017: 188]

The second most frequent TCs of *reportedly* in Lithuanian are *anot/pagal* 'according to' constructions: *pagal turimas žinias/(remiantis) turimomis žiniomis* 'according to available information/on the basis of information available', e.g.:

(86) **EN:** *Between 2001 and 2011, the Scandinavian air transport market (encompassing Denmark, Sweden, Finland and Norway)* **reportedly** *grew by 126 % in ASK (3) terms.*
LT: ***Remiantis turimomis žiniomis****, 2001–2011 m. Skandinavijos oro transporto rinka (apimanti Daniją, Švediją, Suomiją ir Norvegiją), vertinant pagal ASK (3), išaugo 126 %.*   [Glosbe: EurLex2]

As demonstrated in Usonienė and Šolienė (2017), the English neutral reportive evidential adverbial *reportedly* is translated into Lithuanian by various *report/know*-based comment clauses and other adverbials derived from the corresponding non-agreeing present passive participle CTPs, such as *manoma* 'believed', *pranešama* 'reported'. An extremely low or zero degree of the mutual correspondence values between the Lithuanian *esą* and the English hearsay adverbs (*reportedly, allegedly, supposedly*) can be also indicative of the fact that *esą* is not a reportive evidential.

The indication of inference or hearsay, which is part of the semantics of the DstMs under discussion, is very much context-dependent. Let us consider the following example, where the distancing marker *atseit* is used by the author not only to disclaim one's responsibility for one of the assertions reported, namely 'Thomas being indebted to somebody' but also to mark his/her non-commitment regarding the truth value of the reported content. These two specifications go in parallel and can be seen as related to the dimensions of factuality or degree of epistemic support. The given 'degree' interpretation can be illustrated by the following example with multiple realizations of reportive evidentiality (active participles functioning as clausal predicates), e.g.:

(87) *Iš pradžių vieni* ***šnekėję****, jog jį* ***pagrobę*** *mafijozai, kuriems Tomas* ***atseit buvęs*** *skolingas [...], kiti jį* ***matę*** *Brazilijoje [...].*
'At first some **said that** he **had been kidnapped** by mafia to whom Thomas **DstM** had been indebted, others **had seen** him in Brazil.'   [CCLL-fic]

As can be seen, all the clauses in the given example contain reportive constructions with the agreeing active participles *šnekėję* 'talk'.AGR.PST.AP.PL.NOM, *pagrobę* 'kidnap'.AGR.PST.AP.PL.NOM, *buvęs* 'be'.AGR.PST.AP.SG.NOM, *matę* 'see'.AGR.PST.AP.PL.NOM, and it is only one particular instance of the reported events that has been specified by a distancing marker *atseit* to mark the author's non-involvement and uncertainty regarding the given state of affairs. Thus, the use of an additional distancing marker which has an epistemic extension is meaningful, for it has been chosen to emphasize the author's non-commitment to the content of the reported proposition.

One more example from a parallel corpus can be given to support our point of view that distancing markers can be used to cast a shade of uncertainty on

the implied proposition. Consider the following examples from *Glosbe – the multilingual online dictionary* (https://glosbe.com/), which clearly illustrate the aforementioned functional features:

(88)   **LT:** *Nematyti, ir apeliantė šiuo atžvilgiu nepateikia jokių argumentų, kodėl toks atsižvelgimas į bendrą įrodymų kontekstą buvo **neva** akivaizdžiai klaidingas.*
EN: *It is unclear, and the appellant does not advance any argument in this regard, to what extent such a consideration of the overall context in which the evidence is embedded **is supposed to have** been manifestly incorrect.*
[Glosbe: EurLex-2]

(89)   **LT:** *Jie gali tai panaudoti prieš tave – **atseit** esi skolinga (Lara, Didžioji Britanija).*
 EN: *They can use it against you, **as if** you owe them something in return." – Lara, Britain.*   [Glosbe: jw2019]

These distancing markers are very common in complement clauses where they collocate with the complementizers *kad* 'that' and *jog* 'that'. They can either precede or follow the complementizer, which clearly can be used as evidence to support the claim that their basic function is to indicate the point where the author's non-authorship starts:

(90)   *Ne į gerą išeina ir kai kurių Lietuvos politikų [...] postringavimai, – **esą kad** mūsų šaliai pramonės nereikia [...].*
'Speculations of some politicians in Lithuania **DstM COMP-that** our country does not need industry do no good.'   [CCLL-jour]

The meaning of hearsay can be only implied and is very much context-dependent, as in the following examples:

(91)   *Dabar Lietuvoje mėgstama spekuliuoti tuo, **jog neva** dauguma žmonių pasisako už naują atominę elektrinę, kuri gamins pigią energiją [...].*
'Now in Lithuania, one likes to speculate **COMP-that DstM** the majority of people are for a new atomic power station which will produce cheap electric power.'   [CCLL-jour]

(92)   *Kai kurie dienraščiai prieš šventę mums priekaištavo, **kad atseit** "susidėjome" su "Lietuvos aidu".*
'Some dailies kept reproaching us before the event **COMP-that DstM** we had fallen in line with "Lietuvos aidas"'.   [CCLL-jour]

Actually, (92) could be regarded as a case of indirect speech, because a verb of communication is followed by a *kad* 'that' complementizer clause, naturally the question is why the authors use *atseit* to follow the complementizer. The only

plausible explanation seems to be that the authors want to signal the point where they distance themselves from what is stated further in the text. Thus, the purpose of choosing these markers in finite complement clauses instantaneously following the complementizer is to avoid one's direct involvement in the situation described, to disclaim authorship by overtly demonstrating one's non-commitment towards the truth-value of the proposition asserted.

To sum up, the given findings clearly show that the distancing markers under discussion here are not actually associated with the markers that are used to code reportive evidentiality in Lithuanian. The basic function of distancing markers is to signal distance, because for various reasons the author-narrator is willing to overtly indicate their non-involvement concerning the assertion made. The explanation could be related to the fact that marking the source of information is not obligatory in Lithuanian, therefore, if considered necessary, it is basically expressed by lexical means that are related to the semantic domain of perception, cognition, and communication. The marking of evidential qualifications is optional. Indirectness or distance in discourse (Swan 1988; Vandelanotte 2009, 2012) is regarded here as a broader, more general semantic-functional category, which can encompass (as an inclusion relationship) indirect evidential qualifications as well. It means that there can be two types of markers distinguished: the ones that do not specify the source of information (unmarked) and the ones that do it overtly. The coding of indirectness or distance in discourse is void of overt specification of the source of information. According to the analysis of the data collected from the CCLL, they are most common in news discourse, which comprises more than 70% of their total use (*neva* 77%, *atseit* ~71%, *esą* ~71%). Their use in academic Lithuanian (attested only in the humanities and social sciences discourse) is much less frequent (Usonienė and Šolienė 2017).

The evidential markers under analysis in this chapter are listed in Table 1.

Table 1: Verb-based, noun-based, adjective-based, adverb-based and prepositional evidential markers in Lithuanian.

VERB base forms			
	Predicative	**CTP**	**Adverbial/Parenthetical**
Infinitive	*matyti* 'see'.INF	*matyt(i)* 'see'	*matyt* 'apparently, evidently'
	girdėti 'hear'.INF	*girdėti* 'hear'.INF	
	justi 'feel'.INF	*justi* 'feel'.INF	

VERB base forms			
	Predicative	**CTP**	**Adverbial/Parenthetical**
Impersonal 3rd-person REFL forms	*matosi* 'see'3PRS.REFL	*matos(i)* 'see'PRS.3.REFL	*matos* 'evidently'
		regis(i) 'behold'.PRS.3.REFL	*regis* 'apparently'
		atrodo 'it seems' 'seem'.PRS.3	*atrodo* 'apparently'
		rodos(i) 'it seems' 'show'.PRS.3.REFL	*rodos/rods* 'apparently'
Non-agreeing present participles		*žinoma* 'be known to'	*(kaip) žinoma* '(as) known'
		manoma 'be believed to' 'be thought to'	*(kaip) manoma* '(as) believed' 'assumably'
		matoma 'be seen to'	*(kaip) matoma* '(as) seen'
NOUN based constructions			*(kaip) žinia* 'reportedly'
			X-o nuomone 'in X's opinion'
			X-o manymu 'in X's opinion'
			X-o galva 'to one's mind'
			X-o supratimu 'to X's understanding'
Adjective-based non-agreeing forms	*panašu* 'similar'.NAGR	*panašu* 'likely'.NAGR	*panašu* 'apparently'
		aišku 'clear'.NAGR	*aišku* 'clearly'
ADVERBIALS			*akivaizdžiai* 'evidently'
			aiškiai 'clearly'
			matomai 'obviously'
			regimai 'obviously'
PREPOSITIONAL phrases			*anot* X-o 'according to X'
			pasak X-o 'according to X'

12.6 Observations on diachrony

In Lithuanian, due to the lack of sufficient diachronic data, the sources of evidential markers can be traced only to some synchronic constructions, which may reflect the development of the markers. A variety of evidential units deriving from the semantic domains of perception, cognition, knowledge and communication are found to function as CTPs followed by a *that*-clause or as parentheticals. The formal range of CTPs with evidential semantics is wide, including verbs (e.g., *matyti* 'see', *atrodyti* 'appear, seem'), non-agreeing -*ma* participles (e.g., *žinoma* 'known', *manoma* 'thought'), non-agreeing adjectives (e.g., *panašu* 'similar, like') and nouns (e.g., *žinia* 'knowledge'). Synchronic evidence of the formal and functional features of CTPs suggests that a number of evidential units in Lithuanian may have evolved through the processes of grammaticalization and adverbialization widely attested in the development of evidential markers in other languages. Mention can be made of the matrix clause hypothesis discussed by many linguists (Aijmer 1997; Traugott 2008; Van Bogaert and Colleman 2013). Apart from CTP-constructions, sources of evidential markers can be morphological adverbs related to the semantic domain of perception (*akivaizdžiai* 'evidently' and *aiškiai* 'clearly').

The differentiation of evidential meanings may be determined by the lexical source of a marker. For instance, inferential units commonly derive from the semantic domains of perception and similarity (*matyt* 'apparently, evidently' derives from the verb *matyti* 'see', while *panašu* 'it seems, apparently' derives from the non-agreeing adjective *panašu* 'similar, like'), whereas reportives are traced to the markers from the semantic domains of cognition and communication (*žinia* 'reportedly' from the noun *žinia* 'knowledge').

In the latest paper devoted to the origin of the marker *neva*, Petit (2018: 274) claims that "the existence of the comparative meaning in the negative particle *ne* directly explains the formation of the epistemic particle *neva* in Lithuanian". This observation is in line with the findings of the studies carried out by Wiemer (2005, 2006c), which shed light on the development of evidential units related to the domain of comparison in Slavic languages (namely, Pol. *podobno* 'reportedly, apparently', Russ. *poxože* 'it seems, apparently', *kak budto* 'as if', *jakoby* 'as if, reportedly', *budto* 'as if, reportedly', and *vrode* 'as if, reportedly'). The quotative *be like* (D'Arcy 2017) in English and *liksome* 'similar, like' in Norwegian (Hasund et al. 2012) also support the etymological link between the comparative and evidential meanings.

Abbreviations in glosses (not included in LGR)

AGR	agreeing
AP	active participle
CTP	Complement Taking Predicate
EVID	evidential(ity)
NAGR	non-agreeing
PFX	prefix
PP	passive participle
PRP	preposition
PRT	particle
REFL	reflexive
SUF	suffix

Other abbreviations

AcP	Accusativus cum Participio
CXN	construction
DM	discourse marker
DstM	distancing marker
NcI	Nominativus cum Infinitivo

Data Sources

CCLL	Corpus of the Contemporary Lithuanian Language (http://tekstynas.vdu.lt/)
CorALit	Corpus Academicum Lithuanicum (http://www.coralit.lt/)
DCLL	Dictionary of the Contemporary Lithuanian Language (http://lkiis.lki.lt/dabartinis)
Glosbe	The Multilingual Online Dictionary (https://glosbe.com/)

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Katerina Stathi

13 Evidentiality in Standard Modern Greek

13.1 Introduction

The aim of this paper is to provide a descriptive overview of the linguistic means that are employed in Greek for the encoding of evidentiality. The term 'Greek' is used throughout this chapter to refer to the present-day language, also known as (Standard) Modern Greek. In the spirit of the present volume, evidentiality is defined as a domain comprising means that indicate "the existence of a source of evidence for some information; that includes stating that there is some evidence, and also specifying what type of evidence there is" (Aikhenvald 2003: 1). Evidentiality is thus conceived as a conceptual domain (cf. Wiemer and Stathi 2010: 276), which is expressed not only by grammatical morphemes (as required by Aikhenvald 2003: 1 and 2004), but also by lexical means as well as expressions that can be considered more or less grammatical on a lexicon-grammar cline (see Boye 2018; Wiemer 2018). Furthermore, as a conceptual domain, evidentiality is here distinguished from epistemic modality. According to De Haan (2005: 380), the former asserts the evidence, whereas the latter evaluates it (see also Wiemer 2018: 87–90). However, as is typical of many European languages, evidential strategies in Greek may have epistemic overtones (van der Auwera and Plungian 1998; Wiemer 2018).

Before embarking on the presentation of the Greek evidential expressions it must be mentioned that systematic empirical studies on evidentiality in Greek are lacking and the literature on the subject is only cursory. Thus, the aim of this chapter is twofold: First, it compiles some isolated expositions on the subject. Second, it provides some first more in-depth analyses – also in quantitative terms – of selected evidential markers. Clearly, more work is needed to fully understand how evidentiality is anchored in Greek grammar and lexicon.

An overview of this kind must overcome the difficulty of selecting the relevant items for description. A comprehensive account of all expressions that convey source and/or type of evidence would include a lot of speech act verbs (e.g. verbs like *lé(γ)o* 'say, tell', *anaféro* 'mention', *ipostirízo* 'claim', etc.) and their morphological paradigms. Expressions like these are not included in the study because they violate Anderson's (1986) second criterion according to which evidentials are not themselves the main predication of the clause but have scope over the entire proposition (expressed by the respective clause or sentence). However, we study constructions in which speech act verbs occur as markers with scope over propositions as well as specific forms of their morphological paradigm which are isolated and develop special functions (cf. Wiemer and Stathi 2010: 277 for more de-

tails). Thus, the paper focuses on expressions that may be located towards the grammatical end of the lexicon-grammar cline (e.g. grammatical morphemes and function words) or that show tendencies of incipient grammaticalization or lexicalization, i.e. that tend towards conventionalization.

The paper is structured as follows: Section 13.2 provides a brief overview of evidential markers that are discussed in more detail in Sections 13.3 on inferential evidentials and Section 13.4 on reportive markers. Finally, Section 13.5 gives a brief account of the diachrony of evidential markers in Greek.

13.2 Overview

In contrast to other languages of the Balkan *Sprachbund*, Greek is said not to show grammatical marking of evidentiality. According to Friedman (2003: 189), "[o]f the 'classic' languages of the Balkans (Albanian, Greek, Romance, and Slavic), only Greek does not possess evidential categories". Joseph (2003: 307) claims that "Greek [...] does not show any active participation in the grammatical marking of evidentiality". Similarly, Joseph and Philippaki-Warburton (1987: 185) state that "[a] speaker's authority for making an assertion such as through personal witnessing, secondhand information, and the like, can only be expressed by lexical means and not morphologically".

Despite the fact that Greek does not possess specialized grammatical morphemes for the expression of evidentiality like, for instance, Turkish -*mIş*, there is broad consensus that evidentiality is expressed in Greek not only by lexical means, but also by grammatical and emerging, i.e. grammaticalizing, markers (e.g. Kostikas-Tselepis 2004; Stathi 2008; Pietrandrea and Stathi 2010; Giannakidou and Mari 2012; Tsangalidis 2012). The grammatical means discussed in the literature include primarily the evidential meaning of modal markers (verbs and particles). Here, we will expand this repertoire to include the following: The expressions that can be identified as expressing evidentiality in Greek correspond to the following semantic categories: TAM markers (especially Future and Conditional/SHOULD), SEEM, MUST, SAY, OBVIOUS(LY), LIKE, ACCORDING TO. These will be described in the following subsections.

13.3 Inferential markers

Inferential markers are formal means for expressing inference. They constitute the largest group of evidentials in Greek. Their main characteristic is that they are not dedicated forms of expressing inference, but that they have other meanings or functions. TAM markers express tense, aspect, and modality – most

notably future and conditional – and can also serve for the expression of evidentiality under certain conditions, which will be explored in the next section. The modal auxiliary *prépi* 'must', which expresses inference, is primarily used with a deontic meaning (see Section 13.3.2). Finally, the Greek SEEM-verb *fénome*, especially in its impersonal form *fénete*, is used as an inferential marker in addition to its lexical meaning of 'appear, be visible' (see Section 13.3.3).[1]

13.3.1   TAM markers

Similar to Romance languages (Pietrandrea 2005; Squartini 2008; Dendale, this volume), the Greek future and conditional do not only express temporality and counterfactuality, respectively, but have also developed inferential meaning. Before considering the two forms in detail, a brief account of their morphological structure will be given.

Both future and conditional are periphrastic forms which consist of the particle *θa* (dubbed 'modal particle', cf. Tsangalidis 2009) and different tense and aspect forms of the verb (see Table 1). To express future, *θa* combines with the so-called 'non-past' verb stem. According to the aspect of the stem, the future subdivides into imperfective (A), perfective (B), or perfect (C) future, i.e. future perfect (Clairis and Babiniotis 1999: 99f.). The conditional is formed with *θa* and the corresponding past tense forms (indicated by the augment *e-* in the second row in Table 1). Note that the future perfect and the conditional perfect are built from periphrastic forms (perfect and pluperfect, respectively), which consist of forms of the verb *éxo* 'have' and the perfective non-past stem (e.g. *yráps-i* in the example below).

Table 1: Combinations of the particle *θa* with tense and aspect in the formation of the future and conditional (example: *yráf-o* 'write'); English translations are approximate.

Tense	**Aspect**			**Gram**
	(A) Imperfective	**(B) Perfective**	**(C) Perfect**	
Non-past	*θa yráf-i* 'will be writing'	*θa yráp-s-i* 'will write'	*θa éçi yráp-s-i* 'will have written'	Future

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1 Verbs will be given in their citation form, which in Greek is the first person singular. Exceptions are impersonal verbs like *prépi* 'must', which occur in the third person singular form.

Tense	Aspect			Gram
	(A) Imperfective	**(B) Perfective**	**(C) Perfect**	
Past	*θa é-γraf-e*	*θa é-γrap-s-e*	*θa íçe γráp-s-i*	Conditional
	'will have been writing'	'will have written'	'will have had written'	

The next two subsections elaborate on the use of the future (13.3.1.1) and the conditional (13.3.1.2) as evidentials.

13.3.1.1 Future

Of the three different subtypes, only the perfective future is used exclusively as a future tense; see (1). By contrast, both the imperfective future and the future perfect may receive either a future or an evidential interpretation; see (2) and (3).[2] Reference grammars treat these uses of *θa* with the tenses of the past, especially imperfect and pluperfect, as "epistemic modality", i.e. presenting a situation as probable or improbable according to the speaker's evaluation (Clairis and Babiniotis 1999: 100; Triantafyllidis 1941/1996: 315).

(1)   *O   Jánis   θa   ftási   stis 5.*
        DET John   PTCL arrive.PFV.NPST.3SG at   five
        'John will arrive at 5 o'clock.'   (temporal interpretation/future)

(2)   *O   Jánis   θa   kimáte.*
        DET John   PTCL sleep.IPFV.NPST.3SG
        'John must be sleeping.'   (evidential interpretation)

(3)   *O   Alkis   θa   éçi ftási   tóra   stin   Pátra.*
        DET Alkis   PTCL arrive.PRF.NPST.3SG now   in.DEF Patras
        'Alkis must have arrived in Patras by now.'   (evidential interpretation)

In the absence of a context that situates the event in the future, the default interpretation of the imperfective future is inferential, whereby the inference may be based on perception (e.g., in ex. 2, the speaker may perceive signs such as silence in the house) or indirect evidence based on reasoning or background knowledge (e.g., in ex. 3, the speaker has background knowledge concerning the time of departure and world knowledge on how long it takes to get to Patras). With imperfective stems, a temporal (future) interpretation would re-

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2 Examples (1) and (2) are from Giannakidou and Mari (2012: 3), example (3) from Clairis and Babiniotis (1999: 100).

quire an explicit future reference (such as the adverb *ávrio* 'tomorrow' in ex. 4) or an even more elaborate context:[3]

(4) *O   Jánis   ávrio   θa   ðjavázi.*
    DET John   tomorrow   PTCL   read.IPFV.NPST.3SG
    'Tomorrow John will be reading.'

Although the evidential meaning of the future has received some scholarly attention (cf. Giannakidou and Mari 2012, 2018, who call it 'epistemic'), it is extremely rare. In a corpus study, 2,000 random occurrences of future forms were extracted from the *Patakis* corpus.[4] 99,6% of all occurrences instantiate the future tense, and only eight occurrences (0,4%) illustrate the inferential interpretation. All of them contain imperfective future forms. Although these are clear instances of inference, the source of evidence is not mentioned explicitly in the context. Moreover, the future forms are frequently preceded by cognitive verbs ('imagine', 'be sure', 'think'), which suggest an inferential interpretation.

In sum, the future may be used as an inferential in Greek (cf. French and Italian future, Squartini 2008; Dendale, this volume). This interpretation is restricted to the imperfective future and future perfect, for which an inferential interpretation is more likely than a temporal interpretation. However, this use of the future is extremely rare overall. More empirical research is needed in order to determine its distribution and exact meaning.

13.3.1.2 Conditional

The conditional is formed with the particle *θa* and imperfective, perfective or perfect stems of the past (see Table 1 above). Conditionals express non-factuality and their most typical use is as the apodosis of conditional clauses. However, they may also receive inferential interpretations, as exemplified in (5)-(7) (from Clairis and Babiniotis 1999: 100).

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3 The form *θa* + imperfective is homonymous to the future perfect. However, such an interpretation normally requires two events which are put in a relation (cf. Comrie 1976).

4 The *Patakis* corpus is a 100 million word corpus of PoS-tagged texts mostly downloaded from the Internet (98,861 documents) and a collection of fiction, non-fiction and scientific texts for which *Patakis* publishers own the copyrights (240 documents). This corpus was chosen because it presents a unique combination of genres: on the one hand, it contains different genres typical of the written language, on the other hand, it also includes texts from the Internet, which frequently show features typical of spoken language. The corpus is accessible via Sketch Engine (see Kilgarriff et al. 2004, http://www.sketchengine.eu).

(5) *O   Pétros θa   viazótan,   jaftó   ðen   stamátise.*
DET Peter   PTCL hurry.IPFV.PST.3SG therefore NEG stop.PFV.PST.3SG
'Peter must have been in a hurry therefore he didn't stop.'

(6) *To   leoforío θa   vríke   kínisi   ja   na   arjí.*
DET bus   PTCL find.PFV.PST.3SG traffic for   PTCL be.late.PRS.3SG
'The bus must have been stuck in traffic for it to be late.'

(7) *I   Eli   θa   íçe ksekinísi   ótan   tilefónises.*
DET Eli   PTCL leave.PRF.PST.3SG when   ring.PFV.PST.2SG
'Eli must have had left (already) when you rang.'

These examples show that the speaker draws an inference on the basis of per-
ception (the driver did not stop in ex. 5, the bus is late in ex. 6) or reasoning (as
in ex. 7).

13.3.2 Modal auxiliary: MUST

Like its equivalents in other European languages, the modal auxiliary[5] *prépi*
'must' has developed evidential meaning (cf. Pietrandrea and Stathi 2010). This
is an impersonal (uninflected) verb, which morphologically corresponds to the
third person singular present. Syntactically, *prépi* is followed by a dependent
finite clause introduced by the subjunctive marker *na* (Holton et al. 1997). Simi-
lar to the future, the modal *prépi* (+ *na*-clause) has two competing interpreta-
tions, in this case a deontic and an inferential interpretation:

(8) *O   Jánis prépi na   pái   sxolío.*
DET John   must   SBJV go.PFV.NPST.3SG school
'John must go to school.'   (deontic interpretation)

(9) *O   Jánis prépi na   pijéni   sxolío.*
DET John   must   SBJV go.IPFV.NPST.3SG school
'John must be going to school.'   (inferential interpretation)

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5 Tsangalidis (2009: 142) argues that the two modals *prépi* 'must' and *boró/borí* 'can, may'
should be termed "semi-auxiliaries" in order to reflect their intermediate position on the
grammaticalization cline between full verb vs. auxiliary. I will use the term 'auxiliary' here, but
the reader should keep in mind that these verbs are better classified as 'semi-auxiliaries' (for
the notion of a grammaticalization cline for auxiliaries cf. Kuteva 2001).

Prépi na can be followed by any of the following verb forms (cf. Table 2), i.e. imperfective and perfective as well as past and non-past forms. Whether the modal receives a deontic or an evidential (i.e. inferential) interpretation depends on the actionality class of the dependent finite verb (cf. Pietrandrea and Stathi 2010: 336ff.).

Table 2: Semantic values of *prépi na* and combinations of tense and aspect (example: *γráf-o* 'write').

	Imperfective	**Perfective**
Non-past	*prépi na γráf-i*	*prépi na γráp-s-i*
	[+evidential +deontic][6]	**[−evidential +deontic]**
Past	*prépi na é-γraf-e*	*prépi na é-γrap-s-e*
	[+evidential −deontic]	**[+evidential −deontic]**

This distribution shows a division of labor between an inferential and a deontic interpretation. With past subordinate clauses *prépi* can only receive an inferential (i.e. evidential) interpretation, as shown in (10) and (11). In these cases, a deontic interpretation is excluded.

(10)   *O*   *Jánis*   *prépi*   *na*   *éγrafe*   *ðiaγónisma*   *símera.*
       DET   John   must   SBJV   write.IPFV.PST.3SG   exam   today
       'John must have been writing an exam today.'

(11)   *O*   *Jánis*   *prépi*   *na*   *éγrapse*   *kalá*   *símera.*
       DET   John   must   SBJV   write.PFV.PST.3SG   well   today
       'John must have written well [in his exam] today.'

The preclusion of a deontic interpretation with past subordinate clauses can be explained. Deontic modality is future oriented (Palmer 1986: 97), i.e. only the future or something in the future can be altered by one's actions. This leaves *prépi na* + past only with an evidential interpretation. On the other hand, in combination with the perfective non-past *prépi* is unambiguously deontic (see ex. 8).

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6 The two plusses mean that *prépi na* + imperfective non-past forms is ambiguous between evidential (inferential) and deontic interpretations. Disambiguation must rely on the context (see below for discussion).

However, when combined with the imperfective non-past, *prépi* can receive either interpretation. It is here that ambiguity arises (see the grey cell in Table 2). Which factors determine whether an evidential or a deontic interpretation is at stake? As argued in Pietrandrea and Stathi (2010: 337–338), the interpretation is dependent on the actionality class of the subordinate verb. An evidential interpretation rather than a deontic one is the default when *prépi na* combines with states (12), with the imperfective forms of activities (13) and accomplishments (14), with habituals (15), and with achievements (16):[7]

(12) *O   Jánis   prépi   na   kimáte.*
     DET John   must SBJV sleep.IPFV.NPST.3SG
     'John must be sleeping.'

(13) *O   Jánis   prépi   na   yráfi.*
     DET John   must SBJV write.IPFV.NPST.3SG
     'John must be writing (already).'

(14) *O   Jánis   prépi   na   peθéni.*
     DET John must   SBJV die.IPFV.NPST.3SG
     'John must be dying.'

(15) *Prépi   na   ksipnái   norís   káθe   proí.*
     must SBJV wake.up.IPFV.NPST.3SG early every morning
     '(S)he must wake up very early every morning.'

(16) *O   Jánis   prépi   na   yráfi   éna   yráma.*
     DET John   must SBJV write.IPFV.NPST.3SG DET letter
     'John must be writing a letter.'

In sum, *prépi na* is more likely to express evidentiality with states. With non-stative predicates, an evidential interpretation is the most likely choice with the imperfective forms of these predicates.

Finally, *prépi na* is interpreted as an evidential in combination with resultatives, i.e. with the perfect or pluperfect of non-stative predicates:

(17) *Prépi   na   éçi fíji.*
     must SBJV leave.PRF.NPST.3SG
     '(S)he must have left.'

(18) *Prépi   na   íçe fíji.*
     must SBJV leave.PRF.PST.3SG
     '(S)he must have left.'

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7 Progressives and habituals are expressed by imperfective forms (cf. Comrie 1976).

Although the matrix shown in Table 2 creates the impression that the evidential interpretation of *prépi* prevails, this is not the case in quantitative terms. As in the case of the future (cf. Section 13.2.2), the evidential interpretation of the modal auxiliary *prépi* is infrequent. In a sample of 2,000 random hits for *prépi + na* from the *Patakis* corpus (cf. fn. 1), only 56 occurrences (2,8%) were evidential; all other occurrences (97,2%) showed the deontic use of *prépi* (with perfective or imperfective subordinates).

13.3.3 SEEM: *fénete*

The Greek SEEM-verb is *fénome* 'be visible, appear'. When it occurs in particular syntactic constructions it expresses evidential, in particular inferential, meaning. In its evidential uses the verb mainly occurs in the following syntactic constructions.

First, as a copula, *fénome* is a verb with a full set of person and number forms. (19) illustrates the second person:

(19) *Eléni,   fénese   provlimatizméni.*
       Eleni.VOC   seem.PRS.2SG   troubled
       'Eleni, you seem troubled.'

Second, it occurs as a main verb with a dependent clause introduced by the complementizers *óti/pos/na* ('seem that/to'). In this construction the verb is largely used as an impersonal verb, i.e. restricted to the third person singular form *fénete* (see also Section 13.4). This is illustrated in (20):

(20) *Fénete   na   ipárxun   polí   ipopsífii*
       seem.PRS.3SG   SBJV   exist.IPFV.NPST.3PL   many.NOM.PL   candidate.NOM.PL
       'There seem to be many candidates.'

Finally, the verb is used parenthetically. In parenthetical use, the forms or constructions *fénete* '(it) seems' and *ópos fénete* 'as it seems' (*ópos* 'as, like') are the most frequent.

Fénome/fénete is frequently accompanied by a genitive denoting a person, typically the first person (= speaker, *mu*),[8] which encodes an experiencer, i.e. the person who asserts the evidence.

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8 This genitive developed from an earlier dative (*moî*) after the loss of the dative in Greek.

13.4 Reportive markers

Reportive markers in Greek tend toward the lexical end of the lexicon-grammar cline. They differ formally from the inferential markers we have considered so far in that they are not verbs. Rather, reportive markers belong to a range of uninflected word classes. In particular, *símfona me* 'according to' is a complex preposition (cf. Section 13.4.2), *profanós* 'obviously' is an adverb (cf. Section 13.4.3), *san na* 'like' is a particle (cf. Section 13.4.4). Even the SAY-verb *lé(γ)o* in its function as a reportive marker is a particle in the fossilized third person form *léi* (cf. Section 13.4.1).

13.4.1 SAY: *léi*

The third person singular form (*lé-i*) of the verb *lé(γ)o* 'say' has developed "a life of its own". As a form isolated from its paradigm, *léi* is used as a particle (most frequently in parenthetical use) and fulfils two main functions. First, it encodes hearsay, i.e. 'reportedly, allegedly' (Friedman 2003: 189). By using *léi* speakers report something they have not witnessed themselves but which they have heard from a third party. In this use *léi* is actually neutral with respect to speaker stance: the speaker reports something he has heard from the source without stating whether he accepts or rejects the truth of the proposition, i.e. remaining neutral or indifferent (Kostikas-Tselepis 2004: 366). However, reporting third-hand information may create overtones that the speaker is distancing himself from the truthfulness of the information or the reliability of the information source. Hence, the following example is described as expressing an uncertain rumor or assumption (Setatos 1994a: 137), as an unbelievable information (Setatos 1994b); cf. also Tsangalidis (2012):

(21) *Aftós*   **léi**   *ðen*   *píje*   *poté*   *sxolío*
      he   say.PRS.3SG   NEG   go.PFV.PST.3SG   never   school
      'He never went to school, **it is rumored**.'

These overtones are responsible for the frequent use of *léi* to report events in imaginary contexts like fairy tales. The following example from the Internet corpus GkWaC[9] reports a dream. Here the speaker uses *léi* in order to signal that

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9 GkWaC is a collection of PoS-tagged texts downloaded from the Internet. It consists of 149,067,023 tokens and is accessible via Sketch Engine (cf. Kilgarriff et al. 2004; http://www.sketchengine.eu).

the situation described belongs to a different world and that s/he did not have immediate experience of the situation in the real world.[10] As in the case of modal particles, it is difficult to find a proper translation into English.

(22)   *Ítane,*   **léi**,   *énas*   *meyálos*   *ðrómos,*
        be.PST.3SG   say.PRS.3SG   INDF   big   road,

        me   *ómorfa*   *spítja*   *ðeksiá*   *ce*   *aristerá ...*
        with   nice   houses   right   and   left ...

        'There was a big road [**léi**] with nice houses on the right and left ...'

The second function of *léi* which has been discussed in the literature (Kostikas-Tselepis 2004; Stathi 2008; Tsangalidis 2012) is the expression of mirativity, i.e. surprise or unexpected information (cf. Aikhenvald 2004, 2012; DeLancey 1997). In this function the semantic component of incredibility is foregrounded, and the speaker expresses disbelief regarding the information. The following example from the internet illustrates this use. It is written by a person who lives in Great Britain and has personal evidence of the assertion he makes; by the use of *léi* he expresses his surprise and even indignation that British pupils mix up the spelling of homonyms (which is graphically also shown by the multiple exclamation marks).[11]

(23)   *Edhó*   *sti*   *xóra*   *tu*   *Shakespeare,*   **léi**,   *i*
        here   in.DEF   country   DEF.GEN   *Shakespeare,*   say.PRS.3SG   DEF.PL

        péde   *stus*   *ðéka*   *ðen*   *borún*   *na*   *yrápsun*
        five   in.DEF   ten   NEG   can.PRS.3PL   SBJV   write.PFV.NPST.3PL

        sostá   *tis*   *léksis*   their, there   *ce*   they're*!!!*
        correctly   DEF   words   *their, there*   and   *they're*

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10 Kostikas-Tselepis (2004: 366) mentions that *léi* may also be used to refer to entirely hypothetical situations such as the following:

(i)   *ce*   *mu*   *péfti*   **léi**   *to*   *laçío*
       and   I.GEN.SG   fall.PRS.3SG   say.PRS.3SG   DEF   lottery
       'And, **imagine**, I win the lottery.'

11 There are two possible readings of (23) depending on the scope of *léi*: either it has scope over the proposition 'five out of ten cannot spell the words ...' or it may have scope over 'Shakespeare country' (thus meaning 'in the so-called Shakespeare country'). Independently of the intended reading in this context and of the fact that the former reading may be the preferred one, the interesting thing is that these two readings are indeed possible. This may serve to illustrate the difference between the predicative and parenthetical expressions of evidentiality: While the former take scope over the proposition, the scope of the latter is not fixed by the clause structure. I owe this observation to Stavros Skopeteas.

'Here, in Shakespeare's country, [**léi**], five out of ten [pupils] cannot spell the words *their*, *there* and *they're* correctly!!!'

The development of *léi* to a mirative marker is further signaled by the specialization (in the sense of Hopper's 1991 'layering') of the third person singular to this function, even if addressing a second person. Consider (24) from Kostikas-Tselepis (2004: 366) and its non-mirative counterpart in (25), in which the verb occurs in the second person singular:

(24) *Ti   ékane   léi?*
      what   do.IPFV.PST.3SG   say.PRS.3SG
      'What did s/he do [are you kidding]?'

(25) *Ti   ékane,   les?*
      what   do.IPFV.PST.3SG   say.PRS.2SG
      'What do you say did s/he do?'

In (24) the hearer/addressee is the information source, but the speaker uses the third person singular of the verb, *léi*. The speaker is surprised by the information and questions its validity. The third person singular form (*léi*) allows the speaker to distance himself from the hearer as the information source, to show surprise and even question its truth or validity. By contrast, other forms of the verbal paradigm do not have developed this mirative interpretation and can only be used with their more literal meaning as reportives. As example (25) illustrates, the use of the second person singular is used to address the hearer as the information source; this form can only receive a reportive interpretation. As the lexicalized third person singular form, it is used parenthetically. Other forms of the verb *lé(γ)o* 'say' are also used for the expression of hearsay or reported evidence. However, normally not the full paradigm is exploited. The most conventionalized forms with reportive function are *léne* (third person plural active present, literally 'they say') and *léjete* (third person singular (medio)passive present; literally 'it is said'). These forms occur only parenthetically,[12] either alone or in the construction *ópos léne/ópos léjete* 'as they say/as is said'.

13.4.2 ACCORDING TO: *símfona me*

The Greek expression for 'according to' is *símfona me*, which is a complex preposition. It consists of the adverb *símfona* (derived from the adjective *símfonos*

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12 If they are not used parenthetically, these verb forms must be used as main verbs of the clause. These fall outside the scope of our notion of evidential markers (cf. Section 13.1).

'consistent with') and the preposition *me* 'with'. This unit expresses reported evidence. In this case, the source of information is mentioned explicitly (e.g. *símfona me ti María* 'according to Maria'). This expression can be employed both when the source of information is a concrete person or an anonymous source. It is also indifferent with regard to second-hand, third-hand information or folklore and myth.

13.4.3 OBVIOUS(LY): *profan-ís/(-ós)*

The adjective *profanís* (masculine/feminine)/*profanés* (neuter) means 'obvious'. The adverb 'obviously' is formed by adding the suffix *-ós profanós*. The *Dictionary of Standard Modern Greek*[13] explicates the meaning as 'for something that is immediately perceptible, since it is clear and undisputable'. *Profanós* is used as a sentence adverb; it may also be used as an answer to a question, like its English counterpart. It is also used parenthetically; see (25).

(26) *Óli   prospathún, **profanós**, na   ipovathmísun*
       everybody try.PRS.3PL   obviously   SBJV   play.down.PFV.NPST.3PL
       ta   provlímata   ton   jipéðon   tus
       DEF.PL   problems   DET.GEN.PL   football.stadium.GEN.PL   POSS
       'Everybody tries, **obviously**, to play down the problems of their football stadiums.'

13.4.4 LIKE: *san na*

The Greek equivalent of LIKE is *san* which is used as a comparative particle (see ex. 27). In combination with the particle *na* it forms the multi-word unit *san na* which means 'as if' (epistemically qualified). In addition, this unit is used with an evidential function. The source of information may be direct or indirect evidence. For instance, (28) can be uttered when somebody hears steps of a person approaching the door:

(27) *Kléi   san   moró*
       cry.PRS.3SG like   baby
       'S/he is crying like a baby.'

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13 http://www.greek-language.gr/greekLang/modern_greek/tools/lexica/triantafyllides/index.html

(28)   *San*   *na*   *érxete*   *i*   *mama*
        like   PTCL   come.IPFV.NPST.3SG   DET   mum
        'It seems that mum is coming.'

13.4.5 Summary

To summarize, Greek employs *mutatis mutandis* evidential markers that correspond to their counterparts in other European languages. Evidentiality is expressed in Greek by lexical items (simple and multi-word) and larger constructions, but not by affixes. These expressions show different degrees of grammaticalization. One category includes modals, i.e. modal semi-auxiliary verbs and particles, which basically express inferential evidentiality. These expressions are ambiguous between evidentiality and temporal (future) or deontic (modal *prépi* 'must') meanings, the interpretation depends on the actionality class and/or aspect marking of the (dependent) verb. It is difficult to disentangle pure evidentiality from epistemic modality, which is only possible if the wider context is taken into account. The Greek SEEM-verb, *fénome/fénete* occurs in all major constructions that we find for such verbs in other languages (copula, parenthetical, with dependent clause).[14] The verb form *léi* 'says' is remarkable in this system. This form shows deparadigmaticization, i.e. it departs from the verbal paradigm and develops two new functions, namely reportive meaning and mirativity, which is a more remarkable development that is quite unique in the languages represented in this volume. At the more lexical end of the lexicon–grammar continuum, we have identified the adverb *profanós* 'obviously', and the preposition-like *san na* 'like' and *símfona me* 'according to'.

13.5 Evidential functions

This section describes the evidential functions, i.e. the types of evidence expressed by the Greek evidential markers. Following Willett (1988: 57), we may distinguish between direct, i.e. attested, and indirect evidence. In Greek, only indirect evidence (non-firsthand) is expressed. This domain is further divided into inferential, which is based on the results of states of affairs and reasoning (cf. Section 13.5.1) and reportive or hearsay, which involves information from

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14 Since Modern Greek lacks an infinitive, this dominant pattern in other languages is not attested in Greek.

second-hand, third-hand or folklore (cf. Section 13.5.2). Evidential markers need not be specific about this distinction and may leave it open, whether the source of information is hearsay or inference; in this case the markers can be said to be indirect-indifferent (cf. Section 13.5.3).

13.5.1   Inferential

The two more grammatical markers, the modal particle *θa* and the modal auxiliary *prépi*, both have an inferential value. When asserting the evidence, the speakers may rely on the results of a state of affairs or on reasoning. The question may arise whether there is any difference between the two markers or whether they can be used interchangeably. With regard to this question, Squartini (2008) has shown for Italian that this is not the case. He makes finer distinctions in the inferential domain by distinguishing between the following types of inference:

– Circumstantial inference (compare also Anderson 1986): a mental process based on external sensory evidence
– Generic inference: inferential processes in which any externally observable evidence is lacking and the speaker only bases his reasoning process on previous personal experience or general world knowledge ("weak inferences" according to Anderson 1986)
– Conjectural inference: any evidence, both external and based on general world knowledge, is lacking.

In a corpus-based study I tested whether *θa* and *prépi* show a division of labor with respect to these types of inference, as is reported by Squartini (2008) for Italian. A corpus search was conducted using the *Patakis* corpus (cf. fn. 1). A sample of 2,000 random occurrences of each *prépi + na* 'must' and of the future were manually analyzed. As stated above, overall the evidential interpretation is very rare as opposed to the deontic and temporal use of *prépi na* 'must' and the future, respectively. Table 3 shows the distribution of the hits corresponding to each of the three types of inference.

Table 3: Observed frequencies of types of inference in the random sample.

	Circumstantial inferences (inferred knowledge)		Generic inferences (assumed knowledge)			Conjectures
	n	%	n	%	n	%
Future	0	0%	3	37.5%	5	62.5%
prépi	34	60.7%	19	33.9%	3	5.4%

As these results show, *prépi* 'must' and the future are largely complementary, with an overlapping area in between. The modal auxiliary is basically used for circumstantial inference, where the future is totally absent; see (29). Likewise, the future is the preferred option for conjectures (31). Both markers are an option in the case of generic inferences (30).

Circumstantial

(29) *´Omos   aftí   θa   **prépi**   na   írθan   ce   na*
      but   these PTCL must   SBJV come.PFV.PST.3PL and SBJV
      bíkan   sto   ðomátió   mu.   Ákuya
      enter.PFV.PST.3PL in.DEF room   POSS hear.IPFV.PST.1SG
      triksímata sto   pátoma.
      scratches   on.DEF floor
      'But they must have come into my room. I heard scratches on the floor.'

Generic

(30) *´Exo katanalósi   kaféðes   ce   kokakóles   ja mía evðomáða*
      consume.PRF.NPST.1SG coffee.PL and coca-cola.PL for one week
      [...] *Télos pádon,   katalavéno   ólus   ósus   kunáte*
            anyway   understand.PRS.1SG all   who.PL shake.PRS.2PL
      to   kefáli   me   sigatávasi   ce   lípi   ja   to   átomó   mu,
      DEF head   with condescension and regret for DEF person POSS
      ópjos pernái   páno apó 9-10   óres   tin   iméra sti   ðuljá
      who   spend.PRS.3SG above from 9-10 hours DEF day   in.DEF work
      tu,   kápjo   próvlima prépi na   éxi
      POSS some   problem must SBJV have.PRS.3SG
      'I have been drinking coffee and Coca-Cola for one week now [...]. Anyway, I can understand all those of you who shake your head with condescension and regret for me; whoever is spending 9-10 hours a day at work must be mad.'

Conjecture

(31) *Mípos*   *éxis káni*   *ðiakosmitís? [...]* *Fadázome*   *óti*
INTER   make.PRF.NPST.2SG decorator?   imagine.PRS.1SG COMP

to   *ðiko su* *spíti* *θa*   *íne*   *polí* *oréo...!*
DEF POSS   house PTCL be.PRS.3SG very nice

'Have you ever worked as a decorator? [...] Your house must be very nice, I guess!'

Circumstantial evidence is also expressed by the marker *san na* 'like', which seems to be restricted to evidence from sensory experience; see (28).

13.5.2 Reportative

The reportative evidential function is expressed by the verb *lé(γ)o* 'say'. One form of the verbal paradigm, third person singular *léi*, has developed into a parenthetical with a specialized evidential function, i.e. hearsay or reportative (cf. Section 13.4.1).

This use of the SAY-verb is unremarkable from a cross-linguistic point of view. Verbs of saying are a frequent source of grammaticalized evidential markers, such as e.g. *dizque* in Colombian Spanish, which derives from *decir* 'say' and the complementizer *que* (lit. 'I said that'; cf. Travis 2006 and also Cruschina and Remberger 2008 on *dicica* in Sicilian and similar items in other Romance languages).

13.5.3 Indirect-indifferent

The remaining markers discussed here, *fénome/fénete* 'seem', *profanós* 'obviously', and *símfona me* 'according to' are instances of the indirect-indifferent type.

13.6 Lexical and grammatical restrictions

The description of the Greek evidential markers in Sections 13.3–13.5 has revealed a number of lexical and grammatical restrictions, which will be briefly summarized in this section. The restrictions observed can be grouped into two classes: (i) constraints on the combinability of evidential markers with items of specific classes or properties, (ii) constraints of the form of the evidential markers. As for (i), we saw in Section 13.3.1.1 that the future invites an evidential

interpretation only in combination with verbs that belong to certain actionality classes and/or are marked for imperfective aspect. The same type of restrictions was observed for the verbs in the construction *prépi* 'must' + *na* + dependent verb. In both cases, stative verbs are most likely to trigger an evidential interpretation. Alternatively, imperfective forms of other verb classes are also an option. These preferences lead to salient asymmetries in distribution which deserve further study.

Constraints on the form of the evidential marker can be observed with all remaining items. These are more pronounced in the case of the reportative/hearsay and mirativity marker *léi*, which is a fossilized form corresponding to the third person singular. This word form has been isolated from the rest of the verbal paradigm and functions like an evidential particle. Other reportative functions are restricted to an impersonal third singular present (*léjete*) or plural (*léne*). The verb *fénome* 'seem' is less restricted than *léi*. As a copula it is still used in all person/number forms, but when followed by a dependent clause it is largely restricted to the third person singular (*fénete* '(it) seems'), which is equivalent to SEEM + INF in other languages. Finally, parenthetical uses of evidential markers are also usually fixed in form (*(ópos) fénete, (ópos) léjete/léne*, etc.).

These constraints attest – among other criteria – to an emergent class of more or less grammaticalized evidentials. This leads us to some final remarks on the diachronic development of these expressions.

13.7 Remarks on diachrony

The diachronic development of the Greek evidentials has not been dealt with to date. Therefore, only some cursory remarks are possible at this stage. Starting with the TAM markers, we can assume that the evidential use of the future and conditional are rather recent developments of the tense and mood distinctions. Since future forms are cross-linguistically observed to give rise to evidential markers (Aikhenvald 2004: 109), the development future > evidential is a well-observed tendency and can also be postulated for Greek. Futures develop extensions that have to do with inference due to the inherent uncertainty associated with the future. Indeed, the future is basically an inferential evidential in Greek (cf. Section 13.3.1.1), although it is rather rare in this function. The exact path of development remains to be studied. As in the case of the future and the conditional, in the evolution of *prépi* 'must' towards an evidential marker the influence of language contact with other European languages should not be excluded.

The verb *fénome/fénete* 'seem' is a verb of native origin which derives from Ancient Greek *faínō* 'to light sth., to illuminate, to bring to light'. It resembles

the German verb *scheinen* 'emit light, shine', which also developed to a verb of appearance first and to an evidential marker later (see Mortelmans and Stathi, this volume). While the active form *faínō* is obsolete in Modern Greek, the mediopassive form *faínomai* (nowadays *fénome*) survives.

Finally, the reportative marker *léi* is a form of the verb *lé(γ)o*, which is also of native origin (Ancient Greek *légō*), ultimately going back to an Indo-European root. The development of reportative markers from SAY-verbs is also a well-known cross-linguistic path.

Abbreviations in glosses (not included in LGR)

INTER	interrogative
NPST	non-Past
PTCL	particle

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Karlos Cid Abasolo and Marta Carretero

14 Evidentiality in Basque

14.1 Introduction

This chapter concerns evidentiality in Basque, focusing on the expressions corresponding to the following crosslinguistic hyperlexemes: the inferential evidentials MUST and SEEM, the reportive evidentials SAY, (BE) LIKE and ACCORDING TO, and the visual evidential SEE. The description, based on naturally occurring examples, shows that Basque has a number of idiosyncratic evidentials, but the expression of evidentiality in this language is essentially similar to that of some Indo-European languages such as English and Spanish in several respects: syntactic variety, coverage of different modes of gathering the evidence, polysemy of many evidentials and a strong semasiological relationship with epistemic modality.

14.1.1 Structure of the chapter

The chapter is organized as follows: the remainder of Section 14.1 describes the corpora used for the account of the expressions given in the following sections, summarizes the typological features of Basque and offers a panoramic view of evidentiality in this language. Section 14.2 concerns the inferential evidentials *irudi* and *eman*, both meaning 'seem', and *behar* 'must'. Section 14.3 covers the reportive evidentials *esan* 'say' and *arabera* 'according to', the hearsay particles *omen* and *ei* 'it is said', and a few other expressions of hearsay. Section 14.4 pertains to perceptual evidentiality, concretely to the perceptual verb *ikusi* 'see' and related expressions. Section 14.5 covers a number of indirect indifferent evidentials with the meaning 'as it seems, apparently'. Section 14.6 contains remarks on the diachrony of some of the expressions studied in previous sections. Section 14.7 sums up the main conclusions.

14.1.2 The corpora

This article has been elaborated with the aid of four corpora, from which examples have been cited in order to illustrate many of the phenomena described: the first is *Ereduzko Prosa Gaur*[1] ('Exemplary Prose Today'), which contains

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[1] URL: http://www.ehu.eus/euskara-orria/euskara/ereduzkoa/, accessed December 5, 2018.

approximately 25 million words, of which 13 are extracted from quality books and 12 from the newspapers *Berria* and *Herria*. The second is *Egungo Testuen Corpusa*[2] ('Corpus of Current Texts'). The third is *Euskal Klasikoen Corpusa* ('Corpus of Basque Classics').[3] The other corpus was created by one of the authors, Karlos Cid Abasolo. The sources of this corpus, fully specified in the Appendix, are of four types:

– contemporary Basque literature;
– examples from older written texts, most of them obtained from a website run by Susa publishers and from the *Orotariko Euskal Hiztegia – Diccionario General Vasco* (henceforth OEH-DGV) (Michelena and Sarasola 1987–2005);
– contemporary written journalistic texts, on paper and digitized;
– spoken examples from Euskal Telebista 1 (ETB1, public TV channel that broadcasts in Basque).

Throughout the article, the examples obtained from the corpora are cited with the corresponding source. The examples with no citation of a source have been constructed by the authors or by an informant.

14.1.3 A brief typological characterization of Basque

Basque has the peculiarity of not being genealogically related to any other living language according to the present state of knowledge. This section provides a general characterization of the main typological features of Basque, geared at a better understanding of the description of evidential expressions carried out in the following sections:

1) The Basque dominant order of clausal constituents is SOV. In Basque, like in other SOV languages, the verb complements usually precede the verb, and noun complements (except for demonstrative determiners and adjective phrases, the numeral *bat* 'one' and, in the Biscayan dialect, the number *bi* 'two') precede the head in noun phrases.

2) Basque is an agglutinating language, in which the definite article is affixed to the noun (as in *mendi-a* 'the mountain', literally 'mountain-the'). According to *Sareko Euskal Gramatika* ('Basque Grammar Online'), postpositions may be bound or free.[4] Bound postpositions are affixed to noun phrases, as is

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2 URL: http://www.ehu.eus/etc/, accessed January 15, 2019.
3 URL: http://www.ehu.eus/ehg/kc/, accessed January 15, 2019.
4 "Postposizioa eta postposizio sintagma", *Sareko Euskal Gramatika (SEG)*, Euskara Institutua, EHU, www.ehu.eus/seg.

the case of the inessive postposition *-n* (*mendi-a-n*: 'mountain-the-in', 'in the mountain'); free postpositions occur after the Noun Phrases that they modify, as in *bila* ('in search of'): *etxe bila* ('house-in search of', i.e. 'in search of a house').

3) Basque has case marking. Traditional Basque grammars have proposed many cases: for example, *Euskal Gramatika. Lehen Urratsak-I*, published by Euskaltzaindia (the Royal Academy of the Basque Language) in 1991, proposes 15 cases (pp. 216–217). In the more recent *Sareko Euskal Gramatika*, whose approach will be adopted in this paper, these cases have been reduced to four: absolutive, ergative, dative and genitive. This grammar considers that all the other devices which were formerly considered as cases are actually *postposizio itsatsiak* ('bound postpositions').

4) Basque is a morphologically ergative language. Ergativity is reflected in nominal morphology: the absolutive case (zero-marked) signals the subjects of intransitive verbs and the objects of transitive verbs; the subjects of transitive verbs take the ergative case (suffix *-k*). In verbal morphology, there is no ergativity *strictu sensu*, but split ergativity. However, we will not deal with this issue in order not to deviate excessively from the purposes of the present paper.

5) The morphological agreement markers that can appear in the Basque verb are three: absolutive, ergative and dative. The combination of these grammatical cases determines four types of verb agreement patterns: absolutive, as in *joan naiz* 'I have gone' (*n* = ABS1s); absolutive + dative, as in *gustatzen natzaio* 'I please him/her' (*n* = ABS1s and *o* = DAT3s); absolutive + ergative, as in *ikusi naute* 'they have seen me' (*n* = ABS1s and *te* = ERG3PL); and absolutive + dative + ergative, as in *eman dizkizute* 'they have given them to you', (*zki* = ABS3PL, *zu* = DAT2s and *te* = ERG3PL).

6) Basque has synthetic and periphrastic verbs. Synthetic verbs are only a few, and some of them are currently not in common use. An example of a synthetic verb is *noa* 'I am going' (*n* 'ABS1s; *oa* is the VL). In periphrastic verbs, the main verb precedes the auxiliary in affirmative sentences (*joan naiz* 'I have gone', *joan* 'gone' + *naiz* 'I am'), but this order is reversed in negative clauses (*ez naiz joan* 'I have not gone'). The auxiliary of periphrastic verbs may be omitted under certain circumstances, as in coordinate copulative structures.

7) Due to its rich verbal morphology, Basque is a pro-drop language.

8) Basque also differs from other European languages in that its complementizers are not free words but suffixes adhered to verbs. Complementizers have semantic values associated with declarative vs. interrogative contrast, factivity, polarity, mood or evaluation of propositional content. Some examples are *-ela*, *-enik* and *-en*.[5]

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5 An extensive account of complementizers is Artiagoitia and Elordieta (2016).

9) Basque has a few morphemes that indicate the syntactic class to which lexical items belong, such as *-tu* (one of the morphemes marking participles) or *-ki* (one of the morphemes marking adverbs).

10) According to Koldo Zuazo (p.c.), a dialectologist and professor at the University of the Basque Country, nowadays there are five dialects: three of them belong to the Spanish zone of the Basque Country: Western (Biscayan), Central (Gipuzkoan) and Navarrese, and two to the French zone: Navarrese-Lapurdian and Souletin. There was a sixth dialect, Eastern Navarrese, now extinct. On the other hand, since 1968, there is a standard version of Basque, *euskara batua* (literally 'unified Basque').

14.1.4 A panoramic view of evidentiality in Basque

As point of departure we define evidentiality as a domain in which information source is specified. The speaker/writer chooses different means that allow to indicate (or narrow down) the cognitive or communicative basis of a given proposition. This is along the lines of many key references in the literature (Willett 1988; Aikhenvald 2004; Wiemer and Stathi 2010; Boye 2012; Marín-Arrese 2013 *inter alia*). Throughout this chapter, it will be shown that, in spite of its typological difference, the expression of this category in Basque resembles that of other languages studied in this volume in a number of respects. Firstly, Basque has evidential expressions of all the basic types in terms of mode of gathering the evidence (inferential, reportive, perceptual and indirect indifferent). Secondly, most of these expressions are derived from non-evidential expressions, and are polysemous in present Basque. A third similarity lies in the range of syntactic realizations of evidential expressions: there are particles such as *omen* or *ei* 'it is said' or *bide* 'apparently', constructions with different forms of lexical verbs such as *irudi* or *eman* 'seem', nouns such as *irudi* 'appearance', *zurrumurru* 'rumor', *berri*, *albiste* 'news' or *antz* 'appearance', and constructions such as the noun *behar* 'obligation, necessity, duty' in some of the cases where it, accompanied with an auxiliary, forms a compound predicate.

A fourth similarity between Basque and other languages, which will be treated here at greater length, is the strong relation between evidentiality and epistemic modality, understood as the expression of the estimation of the chances for a proposition to be or become true. On the one hand, some of the evidential expressions studied here have both epistemic modal and evidential features; therefore, we believe that they should be considered as epistentials in the sense of Faller (2002) and Lampert (2015). In order to illustrate epistentiality,

we will mention one of the meanings of English *must*, as in 'There is a smell of smoke: something must be burning in the kitchen', where an evidential meaning of indirect evidence coexists with an epistemic modal meaning of high probability. Examples of Basque epistentials are *behar*, which is a close equivalent to English *must* or Spanish *deber (de)* (see Section 14.2.2.), and the expressions of indirect indifferent evidentiality described in Section 14.5, which have non-cancellable meanings of indirect evidence and of lack of total certainty. In their turn, the particles *omen* and *ei* also display a feature of lack of total certainty, but with the status of a Generalized Conversational Implicature (GCI), since it can be cancelled by the context (see Section 14.3.2.). On the other hand, Basque also has many expressions not included here because their epistemic meaning is considered to predominate over their evidential meaning. Some of these expressions are, among many others (Jendraschek 2003; King 2009):

– The participle with suffix *-ko* followed by an auxiliary in the present tense, which is equivalent to *will* + INF in English or the future tense in Spanish;
– Some occurrences of the participle with suffix *-ko* followed by an auxiliary in the past tense, whose nearest expressions in English and in Spanish are *would* + INF and the conditional tense respectively (e.g. 'He would be about forty when I first met him');
– Lexical verbs such as *uste izan* 'think' or *sinetsi* 'believe';
– Adverbs such as *segurki, ziurki* 'certainly', *seguru aski, seguru asko, ziur aski* 'probably' or *agian, beharbada, akaso, apika* 'perhaps'.

Apart from the fact that there is a mutual implicative relationship between epistemic modality and evidentiality (Jendraschek 2003: 18–19), epistemic modal expressions can occur with explicit evidence in favor of (and, in some cases, against) the truth of the proposition, which brings them nearer to evidential expressions. This is the case of (1), an example where the proposition *euria egingo duela* 'that tomorrow it will rain' is qualified by *ziurki* 'certainly' and also supported by the evidence 'those clouds', and of (2), an example of epistemic modality expressed by *-ko* (the /k/ undergoes voicing in /g/ before a nasal consonant) with the past auxiliary:

(1) *Hodei   hori-ek   pents-araz-ten   d-i-da-te*
     cloud   that-ERG.PL   think-CAUS-IPFV   AUX (ABS.3SG-VL-DAT.1SG-ERG.3PL)
     bihar   ziur-ki   euri-a-Ø   egin-go   du-ela.
     tomorrow   certain-ADVS   rain-ART-ABS   do (PFV)-FUT   AUX.PRS.3SG-COMP
     'Those clouds make me think that, certainly, tomorrow it will rain.'

(2) *Bere   adin-eko   ume   guzti-ek   legez,*
     3SG.GEN   age-GLOC.SG   child   all-ERG.PL   like

> *bi urte-Ø   inguru   izan-go   zituen   orduan.*
> two year-ABS   about   have (PFV)-FUT AUX.PST.3SG   then
> 'Like all the children of his age, he would then be about two years old.'
>
> [K. Uribe: *Mussche*. 2012: 125. e-book]

We may state that Basque provides evidence about the crosslinguistic significance of a general category of epistemicity that covers evidentiality and epistemic modality, as proposed in Boye (2012). The following descriptive sections provide additional justification for this statement.

14.2 Inferential expressions

This section deals with a number of constructions that express inferential evidentiality in Basque, namely constructions with the verbs *irudi* 'seem' and *eman* (whose main meaning is 'give'), and constructions with *behar*, a noun that literally means 'obligation, necessity, duty' but has an evidential extension.

14.2.1 *irudi* and *eman* 'seem'

The closest forms to the crosslinguistic hyperlexeme SEEM are the verb *irudi* 'seem' (and its dialectal variety *iduri*), and the verb *eman (emon* in the Biscayan dialect), whose main meaning is 'give'. The evidential extension of *eman* can be accounted as a conceptual metaphor (Lakoff and Johnson 1980), namely as a transfer from the concrete domain of a person giving an object to someone to the abstract domain of a situation giving evidence to the speaker.[6] Both verbs (*irudi* and *eman*) belong to the ergative-absolutive pattern; that is, they require a constituent in the ergative case marked as subject of a transitive verb, and another constituent in the absolutive case marked in the same way as direct objects, although it is a 'predicative complement' in the sense of Huddleston and Pullum (2002: 217).[7] *Irudi* and *eman* may be constructed with a predicative complement or with a complement clause. The absolutive marker in the verbal morphology of the two verbs is always third person singular (the absolutive plural morpheme *-it-* is not admitted). Examples of evidential *irudi* and *eman* are (3) and (4):

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6 The same metaphor occurs with the Spanish verb *dar* 'give', as in *Me da que David se ha recuperado de su enfermedad* (lit. 'It gives me that David has recovered from his illness').

7 The predicative complement is illustrated by *intelligent* in 'Jane is/seems intelligent' and 'Harry considers Jane intelligent'.

(3) *Musika   hon-ek   Bach-en-a-Ø   dirudi-Ø.*
     music   this-ERG   Bach-GEN-ART-ABS   seem.PRS-3SG

(4) *Musika   ho-nek   Bach-en-a-Ø   ema-ten   du.*
     music   this-ERG   Bach-GEN-ART-ABS   seem-IPFV   AUX.PRS.3SG
     'This music seems like Bach.'

The evidential meaning of both verbs coexists with an epistemic element of lack of certainty whether the proposition is true or false, which has the status of a GCI, in the sense that it is communicated by default but may be cancelled or blocked under certain contextual conditions. For example, in the case of (3)–(4), the utterance triggers by default the implicature that the speaker does not have knowledge that this music is by Bach nor knowledge that this music is not by Bach. However, this implicature may be cancelled, e.g. by a later statement that the proposition is true, as in (5),

(5) *Musika   hon-ek   Bach-en-a-Ø   dirudi-Ø,   eta*
     music   this-ERG   Bach-GEN-ART-ABS   seem.PRS.3SG   and
     Bach-en-a-Ø   da.
     Bach-GEN-ART-ABS   be.PRS.3SG
     'This music seems like Bach, and is by Bach.'

or by a later statement that it is false, such as 'But actually it is by Herbst'. In other cases, the GCI is blocked (i.e. not even communicated), e.g. in a context where the speaker and the addressee know beforehand that the music is by Herbst.

When *irudi* and *eman* govern a complement clause, they may be placed at the beginning of the sentence. When *irudi* occurs in its synthetic form, it usually appears with the prefix *ba-* as a morphological reinforcement of synthetic verbs (6); however, if it occurs after the complement clause it may appear without this prefix (7).

(6) *Badirudi/Ematen du   musika   hau-Ø   Bach-en-a-Ø*
     it seems   music   this-ABS   Bach-GEN-ART-ABS
     de-la.
     be.PRS.3SG-COMP

(7) *Musika   hau-Ø   Bach-en-a-Ø   de-la   dirudi/ematen du.*
     music   this-ABS   Bach-GEN-ART-ABS   be.PRS.3SG-COMP   it seems
     'It seems that this music is by Bach.'

The demonstrative pronoun is in absolutive case in (6) and (7), since it is the subject of a copular verb; however, in (3), (4) and (5) it is in the ergative case,

since it is the subject of the evidential verbs *irudi* and *eman*, which function with the ERG-ABS pattern cited above. In its turn, the complement clause carries as complementizer the verbal suffix *-ela* or *-enik*. The distribution of both suffixes is far from clearcut, due to diachronic and diatopic variations. However, for many present-day speakers of western and central Basque dialects, *-ela* expresses a higher degree of certainty than *-enik*. That is, both suffixes display a similar difference to that signaled in Spanish by the choice of the indicative or the subjunctive mood, which may be seen in the Spanish translations of the subordinate verbs in (8) and (9):

(8) *Ez   dirudi   musika hau-Ø   Bach-en-a-Ø   de-la.*
     NEG seem.PRS.3SG music this-ABS Bach-GEN-ART-ABS be.PRS.3SG-COMP
     (Spanish) 'No parece que esta música es (IND) de Bach.'
     'It does not seem that this music is by Bach.'

(9) *Ez   dirudi   musika hau-Ø Bach-en-a-Ø   de-nik.*
     NEG seem.PRS.3SG music this-ABS Bach-GEN-ART-ABS be.PRS.3SG-COMP
     (Spanish) 'No parece que esta música sea (SUBJ) de Bach.'
     'It does not seem that this music is by Bach.'

The subject of the complement clause may also be raised; with this construction, it takes ergative case and is governed by the main verb (i.e. the verb of seeming). *Irudi* and *eman* do not admit a correlate structure to English *seem* followed by infinitive ('This music seems to be by Bach'). The raised construction, of which (10) is an example, was analyzed from a generative perspective by Artiagoitia (2001a, b, 2003: 653–656).

(10) *Orain-go   tanta-k   ema-ten   du   lodi-tzen*
      now-GLOC   drop.ART-ERG   seem-IPFV AUX.PRS.3SG swell-IPFV
      ari   ze-la.
      PROG   AUX.PST.3SG-COMP
      lit. *'The drop now seems that it was swelling.'
                                          [A. Lertxundi: *Paper-festa*. 2012: 232]

Subject raising is also possible when the Subject is not third person singular, since the verb *irudi* or *eman* takes the person mark corresponding to the subject of the subordinate verb, which is third person plural in (11):

(11) *Orain-go   tant-ek   ema-ten   dute   lodi-tzen*
      now-GLOC   drop-ERG.PL seem-IPFV AUX.PRS.3PL swell-IPFV
      ari   zire-la.
      PROG   AUX.PST.3PL-COMP
      lit. *'The drops now seem that they were swelling.'

Concerning person, Artiagoitia (p.c.) made an informal inquiry with example (12) about the possibility for subject raising with the first or second person. Most informants considered (12) ungrammatical, but a few others considered it grammatical. Consequently, we may state that subject raising is virtually restricted to the third person.

(12) *%Asko-Ø   irakur-tzen   duzu-la   dirudi-zu.*
     a_lot-ABS   read-IPFV   AUX.PRS.2S-COMP   seem.PRS-2SG
     lit. *'You seem that you read a lot.'

Subject raising with *irudi* and *eman* may well be motivated by stylistic factors. Let us consider (13):

(13) *Baina   amaiera-rik-Ø   ez   dute-la   dirudite-n*
     but   end-PARTIT-ABS   NEG   have.PRS.3PL-COMP   seem.PRS.3PL-REL
     beste batzuk-Ø (…)
     others-ABS
     lit. *'But others who seem that they do not have an end (…)'
        [TV, ETB1, Programme "Tribuaren kideak" ('The Members of the Tribe').
                          Stated by show host Kike Amonarriz, February 19, 2013]

The choice of subject raising was, in all probability, due to the occurrence of *irudi* in a relative clause. In Basque, relative clauses with the relativizer suffix *-n* occur at the left of the head of the Noun Phrase: the verb *dirudite* ('seem'-3PL) occurs between the complement clause (*amaierarik ez dutela* 'that they do not have an end') and the head. This construction has the disadvantage that it suggests a false syntactic relationship between the two elements (*beste batzuk* is not the notional subject of *diruditen*, but of *dute* 'have'-3PL). However, in (14), which is the continuation of (13), *eman* occurs but the corresponding construction with raised subject (15) was not chosen, probably because *eman* is not within the scope of a relative clause:

(14) *Buka-tu-ko   dir-ela   ema-ten   du.*
     finish-PFV-FUT   AUX.PRS.3PL-COMP   seem-IPFV   AUX.PRS.3SG
     'It seems that they will finish.'

(15) *Buka-tu-ko   dir-ela   ema-ten   dute.*
     finish-PFV-FUT   AUX.PRS.3PL-COMP   seem-IPFV   AUX.PRS.3PL
     *'(…) they seem that they will finish.'

With *irudi* and *eman*, inferences may be derived from different kinds of sources:

– Perceptual:

(16)   ***Sofan esertzeko duzun moduagatik***, *oso nekatua dirudizu.*
       'You seem very tired, **by the way you are sitting on the sofa**.'

– Cognitive, as in (17), where the inference is based on the writer's knowledge
  that certain results of Basque *pelota* games often occur in boring matches:

(17)   ***Emaitzari erreparatuta***, *badirudi zer gozatu handirik ez zuela izan pilo-*
       talekura joandako jende andanak.
       '**Given the final result**, it seems that the great amount of people who
       went to the pelota court did not really enjoy themselves.'
       [https://www.berria.eus/paperekoa/1554/026/001/2011-12-27/gainera-
       hala-jokatzen-badute.htm]

– Discourse-based:

(18)   ***Txostenak dioenez***, *Eusko Jaurlaritzak zabortegiari emandako ingurumen*
       baimenak Europako zuzentarauak betetzen zituen.
       '**According to what the report says**, the environmental authorization
       granted to the landfill by the Basque Goverment complied with European
       directives.'
       [https://www.berria.eus/paperekoa/2086/012/002/2020-09-
       05/jaurlaritzak-zuzen-bete-zuen-verterrekiko-kontrola-ikuskaritza-baten-
       arabera.htm]

(19)   **The Washington Post *eta* The New York Times *egunkariek diotenez*,**
       Michael Forest Reinoehl Lacey herrian hil zen.
       '**According to what the newspapers *The Washington Post* and *The**
       ***New York Times* say**, Michael Forest Reinoehl died in a village called
       Lacey.'

Irudi and *eman* are sometimes accompanied with expressions used for introduc-
ing explicit evidence, such as those mentioned below, among others:
a)   the noun *modu* 'way' with the cause bound postposition *-gatik* (*moduagatik*
     'by the way'):[8]

(20)   ***Zure jokatzeko moduagatik***, *badirudi ez duzula presiorik sentitzen.*

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8 "Motivative" is the term used by basqueology (Hualde and Ortiz de Urbina 2003: 742, among
others).

'**By the way you play**, it seems that you do not feel pressure.'

[http://paperekoa.berria.eus/kirola/2013-02-21/024/001/ez_goaz_kezkatuta_uste_osoa_dugu_emaitza_on_bat_lortuko_dugula.htm]

b) *gauzak horrela* 'given the state of things':

(21) **Gauzak horrela**, *ez dirudi beteko dutenik Nafarroako AHT osoa egiteko jarritako epemuga: alegia, 2015. urtea.*
      '**Given the state of things**, it does not seem that they will meet the deadline set for doing all Navarra's TAV, that is to say, the year 2015.'

[https://www.berria.eus/paperekoa/0/010/002/2012-08-07/nafarroan-ahtko-lanen-20-martxan-daude-loturak-zehazteko-badaude-ere.htm]

c) *erreparatu* 'notice, realize', *kontuan hartu* 'take into account', etc. These expressions, which have a meaning of conditionality ('taking into account, if we take into account'...), contain a participle, which takes the adverbial suffixes *-ta*, *-ik* or *-z*:

(22) **Ikusleen erantzuna kontuan hartuta** *badirudi asmatu egin dela.*
      '**Taking into account the spectators' responses**, it seems to have succeeded.'

[http://www.diariovasco.com/20080724/alto-deba/mairuaren-alardea-aztertu-berritzeko-20080724.html]

Finally, it must be noted that *irudi* is also a polysemous noun, whose meaning may be concrete ('figure'), as in (23) or abstract ('opinion, image, look') (24)–(26):

(23) *Berun-ez-ko   irudi   hori-Ø   apur-tu   egin   da.*
      lead-INS-DER figure this-ABS break-PFV do (PFV) AUX.PRS.3SG
      'This figure of lead has broken.'

(24) *Ni-re   irudi-z/irudi-ko,   lor-tu   egin-go   duzu.*
      1SG-GEN opinion-INS/GLOC manage-PFV do (PFV)-FUT AUX.PRS.2SG
      'In my opinion, you will manage.'

(25) *Politikari   horr-ek   irudi   on-a-Ø   du.*
      politician that-ERG image good-ART-ABS have.PRS.3SG
      'That politician has a good image.'

The noun *irudi* may express perceptual evidence, as in (26):

(26) *Bere   irudi-a-Ø   ikus-i-ta,   Bilbo-ko-a-Ø*
     3SG.GEN look-ART-ABS see-PFV-ADVS   Bilbao-GLOC-ART-ABS

     de-la   esan-go   nu-ke.
     be.PRS.3SG-COMP   say (PFV)-FUT   AUX.1SG-CON

     'After seeing her appearance, I would say s/he is from Bilbao.'

14.2.2 *behar* 'must'

In Basque, the closest item to the hyperlexeme MUST is the noun *behar* 'obliga-
tion, necessity, duty',[9] accompanied by the auxiliary for transitive verbs. This
construction resembles English *must* in that it has an evidential meaning of
indirect evidence together with an epistemic modal meaning of high probabil-
ity, thus being best considered as epistential (see Section 14.1.4.).

 Behar may express the following meanings, apart from the epistential:
1) Need of an object or commodity ('need, require'):

(27) *Diru-a-Ø   behar   dut.*
     money-ART-ABS   AUX.PRS.1SG
     'I need money.'

2) Deontic necessity ('have to, must'), with a participle before *behar*. This
 meaning is very common:

(28) *Irabaz-i   behar   dut.*
     win-PFV   AUX.PRS.1SG
     'I have to win/I must win.'

3) Near future, with a participle of a verb before *behar*. As an expression of
 future, *behar* is intentional: it only occurs with states or events to be carried
 out intentionally by a volitional agent.

(29) *Zer-Ø   har-tu   behar   duzu?*
     what-ABS   take-PFV   AUX.PRS.2SG
     'What are you going to have?'

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9 The noun *behar* has dialectal variants: in the past, the /h/ was aspirated in all the dialects,
but nowadays this aspiration is lost in all the dialects but Souletin. The first vowel may be
pronounced /e/ or /i/, depending on the areas.

The epistential meaning is the most recent of all the meanings of *behar* (see Section 14.6). A fact related to this recency is that most of the epistemial examples found have as main verbs the copular verbs *izan* ('be [permanent]') and *egon* ('be [transitory]'). *Egon* may occur with the Subject in the ergative case or in the absolutive case. (30) is an example with the Subject in ergative case (suffix *-k* in *Anek* 'Ane') agreeing with the transitive auxiliary *du* (ERG.3S-ABS.3S):

(30) **Anek lur jota egon behar du**, *eta hobe dugu bakean utzi.*
      '**Ane must be distressed** and we'd better leave her in peace.'

(31) is an example of *egon* with absolutive case (morpheme Ø), where the Subject is *itxaso gaisto xamarra* 'quite rough sea' instead of the ergative case (which would be *itxaso gaisto xamarrak*); the absolutive case prompts an existential interpretation (Rezac et al. 2014):

(31) *Itxaso   gaisto   xamarr-a-Ø   egon   bear   du.*
      sea   rough   quite-ART-ABS   be (PFV)   AUX.PRS.3SG
      'There must be quite rough sea.'

[R. Illarramendi: *Testimonio Falsoa*. 1918: 5][10]

In certain cases, *izan* and *egon* occur in construction with other verbs, for example in the passive (*egina izan* 'be made'; *asmatua izan* 'be invented', etc.), as in (32)–(33). Other verbs may also appear, although they are less usual (34). It may be seen that in (32)–(34) the Subjects are also in absolutive case: *pastel hori*, *Artzai Arkadi hau* and *egotia* occur instead of the corresponding ergatives *pastel horrek*, *Artzai Arkadi honek*, and *egotiak*, even though the auxiliary is *du* (with mark of ERG3s).

(32) *Pastel   hori-Ø   Mikel-ek   egin-a   izan*
      cake   that-ABS   Mikel-ERG   make (PFV)-ART be (PFV)
      behar   du.
              AUX.PRS.3SG
      'That cake must be made by Mikel.'

(33) *Artzai Arkadi   au-Ø   Bergili-k   bera-k   asma-tu-a*
      shepherd Arkadi   this-ABS   Virgil-ERG   himself-ERG   invent-PFV-ABS
      izan   behar   du   ziurr-ik   asko.
      be (PFV)   AUX.PRS.3SG sure-PARTIT   much
      'This shepherd Arkadi must have been invented by Virgil himself, surely.'   [A. Ibiñagabeitia: *Bergiliren Idazlanak osorik*. 1966: 44]

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10 Examples (31), (33), and (34) were found in the entry *behar izan* of the OEH-DGV, Volume 4.

(34) Ikara-tu   bear du   bakarrik   ego-ti-a-Ø!
      frighten-PFV   AUX.PRS.3SG   alone   be-NMLZ-ART-ABS
      'It must frighten to be alone!' [R. Illarramendi: *Testimonio Falsoa*. 1918: 18]

Nevertheless, we have also found examples such as (35), in which the Subject (*ark* 'that') takes the ergative case (-*k*).

(35) *Onezkero neska zirzill ark, nik aditu nubenez, Madrill-aldeko komenturen*
      batean   sar-tu-a   izan   bear du   moja-Ø
                 enter-PFV-ART   be (PFV)   AUX.PRS.3SG   nun-ABS
      'That shabby girl, according to what I heard, must have already become a nun in a convent in the Madrid area.'
                  [V. Mocoroa: *Damuba... garaiz, edo Bertuteric gabeco aberastasuna*
                                   iñoiz ez da eguizco zioriontasuna. 1897: 21]

Behar with epistemic meaning is extremely rare in negative clauses. For instance, the meaning of negated epistemic necessity, with both external and internal negation (as in 'John need not know English' or 'John cannot know English', respectively) is most often conveyed by other epistemic modal or evidential expressions, some of which are studied in this article. Therefore, *behar* in negative clauses nearly always has a different meaning from the epistential one. With regard to aspect, epistential *behar* has no formal restrictions, but it is clearly more frequent with imperfective aspect than with perfective aspect.

   The participle of the main verb may also appear after *behar*. This word order differs from the other in that the participle is backgrounded and the focus (which, in Basque, is placed immediately before the verb) is given extra emphasis. In (36), the focality of *ona* 'good' is highlighted and the participle *izan* ('be') is backgrounded; this difference in communicative importance is weakened in the correlative construction (37), even if the focus is still *ona*.

(36) *Neska-Ø*   *irakur-tzen ari   de-n*   *liburu-a-k*
      girl.ART-ABS   read-IPFV   PROG   AUX.PRS.3SG-REL   book-ART-ERG
      on-a-Ø   *behar du izan.*
      good-ART-ABS
      'The book that the girl is reading must be good.'
                                        [A. Lertxundi: *Paper-festa*. 2012: 263]

(37) *Neska-Ø*   *irakur-tzen ari   de-n*   *liburu-a-k*
      girl.ART-ABS   read-IPFV   PROG   AUX.PRS.3SG-REL   book-ART-ERG
      on-a-Ø   *izan behar du.*
      good-ART-ABS

Another feature that must be noted is that the copular verbs *izan* or *egon* can be omitted when there is an explicit complement governed by the omitted verb, which allows its retrieval. In (38), the complement is *Siberiako izotzpean* 'under Siberia's ice', with inessive bound postposition governed by the omitted verb *egon*. In (39), the nominalizing suffix *-tear* 'about to' joined to the verb *iritsi* 'arrive' is also governed by omitted *egon*:

(38)　*Poeta-ren*　　*gorpu-a-k*　　　*Siberia-ko*　　*izotz-pe-a-n*　　*[egon]*
　　　　poet.ART-GEN　corpse-ART-ERG　Siberia-GLOC　ice-under-ART-IN　be (PFV)
　　　　behar　　*du.*
　　　　　　　AUX.PRS.3SG
　　　　'The poet's corpse must [be] under Siberia's ice.'

[A. Lertxundi: *Paper-festa*. 2012: 203]

(39)　*Seme-a-k*　　　*iris-tear*　　　*behar*　　　*du.*
　　　　son-ART-ERG　　arrive-about　　　　　　AUX.PRS.3SG
　　　　'The son must be about to arrive.'　　[E. Rodriguez: *Katu jendea*. 2010: 62]

This omission may provoke ambiguity between the epistential meaning and the meaning 'need', but the linguistic or situational context most often disambiguates the meaning of the utterance, as in (40),

(40)　*Txori*　　*bat-Ø*　　*behar*　　*du.*
　　　　bird　　　one-ABS　　　　　　AUX.PRS.3SG
　　　　Possible meanings: 'S/he needs a bird' or 'It must be a bird'.

[A. Lertxundi: *Paper-festa*. 2012: 275]

where the previous stretch of discourse, which says "Zerbait solidoa erori da kedarrarekin batera. Puska beltz bat" ('Something solid has fallen at the same time as the soot. A black piece'), prevents possible ambiguity in favor of the epistential reading.

　　　Finally, a constraint of the *behar* construction is that it cannot occur in subordinate clauses. The evidential basis of the *behar* construction, like that of English *must*, is restricted to immediate evidence, most often gathered in a time close to the speech moment. In this sense, its evidential basis may be contrasted with that of the Basque future tense, a linguistic device not included in this paper due to its comparably stronger epistemic modal component. King (2009: 473) describes the epistemic modal meaning of the Basque future tense as "probability, conjecture, and in general various shades of epistemic possibility". The difference between the epistemic meanings of *behar* and the Basque future tense is, therefore, analogous to that between epistemic *deber (de)* and the future of probability in Spanish, and between epistemic *must* and *will* in

English (Coates 1983; Carretero 1998). Coates states that *must*, in its most normal usage, "conveys the speaker's confidence in the truth of what he is saying, based on a logical process of deduction from facts known to him (which may or may not be specified)" (Coates 1983: 41), whereas with *will* "the speaker's confidence is not based on a process of logical inference. Instead it is based on common sense, or on repeated experience" (Coates 1983: 177). Even though Coates arguably pushes the difference too far, since virtually all epistemic qualifications may be considered to involve a process of logical inference, the difference undoubtedly exists, and is applicable to the construction with *behar* and the Basque future tense. The contrast may be seen in (41) and (42):

(41)   *Maria-k*   *hogeita[1] hamar[2]* *urte-Ø*   *izan*   *behar*
      Maria-ERG   thirty[1,2]   year-ABS   have (PFV)
      ditu   *orain.*
      AUX.PRS.3SG   now
      'Maria must be thirty years old now'.

(42)   *Maria-k*   *hogeita[1] hamar[2]* *urte-Ø*   *izan-go*   *ditu*   *orain.*
      Maria-ERG   thirty[1,2]   year-ABS   have (PFV)-FUT AUX.PRS.3SG now
      'Maria will be thirty years old now.'

This coexistence of the epistemic modal and evidential meanings has led some scholars to distinguish between two different meanings, or readings, of *must* and other modal auxiliaries or similar expressions in other languages (De Haan 2000; Cornillie 2009; Mortelmans et al. 2009; Alonso-Almeida 2010, among others). With regard to *behar*, Zubeldia (2008: 166) gives an example, cited here as (43),

(43)   *Unai-k*   *etxe-a-n*   *behar*   *du.*
      Unai-ERG   house-ART-IN   AUX.PRS.3SG
      'Unai must be at home'

and states that, depending on the context, *behar* may have an epistemic modal interpretation ('Unai will certainly be at home') or an evidential inferential one, i.e. it may be based on some evidence, as when the light is on and hence the speaker infers that Unai is at home. We argue, however, that both the epistemic modal and the inferential meaning of *behar* are present in all its occurrences in which it does not have the other non-epistemic meanings mentioned above. That is to say, we consider that these cases of *behar* should not be divided into either epistemic modal or evidential, but should all be considered as both, i.e. as epistential. Depending on the concrete example, the basis on evidence or the expression of high probability may have more or less relative prominence, but

this contextual factor is not sufficient to qualify *behar* as polysemous as far as epistemic modality and evidentiality is concerned. The difference between epistemic modal and evidential meanings cannot be proved by some classic tests (Quine 1960; Cruse 1986), which would demonstrate a difference between the epistential and the deontic meanings:

— The coordination of epistential and deontic meanings produces a zeugma:

(44) *Maria-k*   *hogeita*[1] *hamar*[2]   *urte-Ø*   *izan*   *behar*
      Maria-ERG   thirty[1,2]   year-ABS   have (PFV)
      ditu   *eta*   *oraintxe bertan*   *etorr-i.*
      AUX.PRS.3SG   and   right now   come-PFV
      lit. *‘Maria must be about thirty and come here right now.’

— An example can easily be created with epistemic *behar* followed by a statement that would be contradictory with the meaning of obligation:

(45) *Ane-k*   *orain*   *zine-a-n*   *egon*   *behar*   *du,*
      Ane-ERG   now   cinema-ART-IN   be (PFV)   AUX.PRS.3SG
      bulego-a-n   *egon*   *behar*   *ba-lu*   *ere.*
      office-ART-ABS   be (PFV)   COND-3SG   also
      ‘Ane must be in the cinema now, although she should be in the office’

It must also be noted that, due to the strong evidential component of *behar* mentioned above, it often occurs with explicit evidence in favor of the epistemic qualification. As for the mode of knowing, there are no restrictions. The evidence may be:

— Perceptual:

(46) **Leihatilak lurrinez estalita zeuden eta argi zimel bat baino ez zen sartzen aurpegia zurbildu eta zorroztu egiten ziona**; *oso itsusia egon behar nuen.*
      ‘**The windows were covered with vapour and there went in only a dim light, which made his face pale and sharp**; I must have appeared very ugly.’   [R. Saizarbitoria: *Kandinskyren tradizioa*. 2003: 84]

(47) **Ahotsagatik eta hitz egiteko moduagatik** *adinekoak izan behar zutela pentsatu nuen.*
      ‘**By their voice and their way of speaking** I thought they must be of a certain age.’   [A. Lertxundi: *Berria* journal, 29-3-2005]

— Cognitive, as in (48), where the main basis of the inference is the narrator’s knowledge that only males have the health issue in question:

(48) *Beren hormonekin zerikusia duen zerbait behar du izan, **emakumeoi ez
baitzaigu horrelakorik gertatzen**.*
'It must be something related to their hormones, **because to us women that
does not happen**.' [R. Saizarbitoria: *Kandinskyren tradizioa*. 2003: 82]

– Discourse-based: the inference being derived from report (49) or from hear-
say ((35) above, cited again as (50)).

(49) *Baliteke, dena den, gertaeretara nolabaiteko hurbiltze poetikoa izatea;
honela balitz ere, 1650. urtea baino lehenagokoa izan behar du, **zeren eta
bakarrik urte horretara arte bait dugu egilea – poemaren sarreran
aipatzen den bezala – Arteako benefiziadu**.*
'In any case, it may be that there is a sort of poetic approach to events;
even though it were so, it must be dated before the year 1650**, because
the author, according to the citation at the entry of the poem, is
beneficiary from Artea only until that year.'**
[B. Urgell: "Egiaren kantaz: I. testua eta iruzkinak". 1986: 79]

(50) *Onezkero neska zirzill ark, **nik aditu nubenez**, Madrill-aldeko komenturen
batean sartuba izan bear du moja.*
'That shabby girl, **according to what I heard**, must have already be-
come a nun in a convent in the Madrid area.'
[V. Mocoroa: "Damuba... garaiz, edo Bertuteric gabeco aberastasuna
iñoiz ez da eguizco zoriontasuna". 1897: 21]

In (51), the evidence in favor of the proposition qualified with *behar* is provided
by an epistemically modalized clause expressed by participle + *-go* (FUT), fol-
lowed by the causal prefix *bait-* 'because' and the past auxiliary *zituen*:

(51) *Udaberri-a-Ø izan behar zuen,* **14 *edo 16* gradu-Ø**
spring-ART-ABS be (PFV) AUX.PST.3SG or degree-ABS
***egin-go bait-zituen**.*
do (PFV)-FUT because-AUX.PST.3SG
'It must have been spring, because there would be about fourteen or six-
teen degrees.' [J. Sarrionandia: *Moroak gara behelaino artean?* 2010: 11]

14.3 Reportive expressions

This section concerns a number of linguistic devices used to express reportive
evidentiality. The evidence may consist of concrete reports, or else of rumor and

hearsay. Some expressions, such as *omen* or *ei* 'it is said', may be used in both cases, while others can only be used with hearsay evidence.

14.3.1 *esan* 'say' and *arabera* 'according to'

Basque has verbs of saying, such as the equivalent of Engl. *say*, which is *esan*,[11] as well as other verbs such as *adierazi* 'declare' or *azaldu* 'explain' (Jendraschek 2003: 48). For reasons of space, this paper will exclude direct and indirect reported speech, which is often considered as lying outside the category of evidentiality (Boye 2012; Chojnicka 2012, among others). However, in order to deal with the evidential function of *esan* we have to specify that, when it occurs as a verb introducing a complement clause, the complementizing suffix is *-ela* added to the subordinate verb. The sentence word order may be OVS, SVO or SOV (examples 52–54):

(52) *Errepide-a-n   gizon   bat-Ø   hil   de-la*
      road-ART-IN   man   one-ABS   die (PFV)   AUX.PRS.3SG-COMP
      dio   Ane-k.
      say.PRS.3SG   Ane-ERG
      'Ane says that a man has died on the road.'

(53) *Ane-k   dio   gizon   bat-Ø   hil   de-la*
      Ane-ERG   say.PRS.3SG   man   one-ABS   die (PFV) AUX.PRS.3SG-COMP
      errepide-a-n.
      road-ART-IN

(54) *Ane-k   errepide-a-n   gizon   bat-Ø   hil*
      Ane-ERG   road-ART-IN   man   one-ABS   die (PFV)
      de-la   dio.
      AUX.PRS.3SG-COMP   say.PRS.3SG

The three orders are possible when the Object is a complement clause, although the second is the most frequent one in spoken Basque.

Esan may also be used with the suffix *-enez* 'according to', formed by the relative subordinating suffix *-n* and the instrumental bound postposition *-z*. The suffix sequence *-enez* is specialized in declarative verbs. With this construction,

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11 The variety *esan* is used in western and central dialects (Biscay and Gipuzkoa), and the variety *erran* in eastern dialects.

the second clause is not a complement clause but the main clause, and consequently the complementizer *-ela* does not appear on its verb:

(55) *Ane-k*   *dio-en-ez,*   *gizon* *bat-Ø* *hil*
     Ane-ERG say.PRS.3SG-REL-INS   man   one-ABS   die (PFV)
     da   *errepide-a-n.*
     AUX.PRS.3SG   road-ART-IN
     'According to [what] Ane says, a man has died on the road.'

An alternative to *-enez* is the free postposition *arabera* 'according to',[12] which requires the genitive case (*-en*) for the relative verb *dioena* (*dio* 'says' + relativizer *-en* + definite article *-a*):

(56) *Ane-k*   *dio-en-a-ren*   *arabera,*   *gizon* *bat-Ø*
     Ane-ERG say.PRS.3SG-REL-ART-GEN   according to man   one-ABS
     hil   *da*   *errepide-a-n.*
     die (PFV) AUX.PRS.3SG   road-ART-IN
     'According to what Ane says, a man has died on the road.'

Arabera may also occur without the verb *esan*, in which case it governs the genitive for the noun or noun phrase mentioning the source of the report:

(57) *Ane-ren*   *arabera,*   *gizon* *bat-Ø* *hil*   *da*
     Ane-GEN   according to   man   one-ABS   die (PFV) AUX.PRS.3SG
     errepide-a-n.
     road-ART-IN
     'According to Ane, a man has died on the road.'

When the source is imprecise (hearsay), the verb *esan* may appear in the following constructions: with the impersonal form (*esaten da* 'it is said' (58–59)) and with third person plural (*diote* or *esaten dute* 'they say' (60–61)):

(58) <u>*Esa-ten*</u> <u>*de-n-ez,*</u>   *Cristiano Ronaldo-k*   *ez*
     say-IPFV   AUX.PRS.3SG-REL-INS   Cristiano Ronaldo-ERG   NEG
     daki   *nor-Ø* *ze-n*   *Saramago-Ø.*
     know.PRS.3SG who-ABS be.PST.3SG-COMP   Saramago-ABS
     '<u>According to what is said</u>, Cristiano Ronaldo does not know who Saramago was.'

(59) <u>*Esa-ten*</u> <u>*da*</u>   *Cristiano Ronaldo-k*   *ez*   *daki-<u>ela</u>*
     say-IPFV   AUX.PRS.3SG   Cristiano Ronaldo-ERG   NEG   know.PRS.3SG-COMP

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12 *Arauera* is a dialectal variety of *arabera*. Etymology of *arabera*: *arau* 'rule' + *era* 'manner'.

nor-Ø   *ze-n*   *Saramago-Ø.*
who-ABS   be.PST.3SG-COMP   Saramago-ABS
'<u>It is said that</u> Cristiano Ronaldo does not know who Saramago was.'

(60)   <u>*Diote-n-ez,*</u>   *Cristiano Ronaldo-k*   *ez*   *daki*
      say.PRS.3PL-REL-INS   Cristiano Ronaldo-ERG   NEG   know.PRS.3SG
      nor-Ø   *ze-n*   *Saramago-Ø.*
      who-ABS   be.PST.3SG-COMP   Saramago-ABS
      '<u>According to what is said,</u> Cristiano Ronaldo does not know who Saramago was.'

(61)   <u>*Diote-n-a-ren,*</u>   <u>*arabera,*</u>   *Cristiano Ronaldo-k*   *ez*
      say.PRS.3PL-REL-ART-GEN   according to   Cristiano Ronaldo-ERG   NEG
      daki   *nor-Ø*   *ze-n*   *Saramago-Ø.*
      know.PRS.3SG   who-ABS   be.PST.3SG-COMP   Saramago-ABS
      '<u>According to what is said,</u> Cristiano Ronaldo does not know who Saramago was.'

14.3.2 Hearsay: the particles *omen* and *ei*

Omen and *ei* are two synonymous particles with a meaning of hearsay. The source of information cannot be explicit in the clause in which they occur, even though it may be inferred from the previous linguistic context or from the extralinguistic context (Korta and Zubeldia 2014: 417–418). *Omen*[13] occurs in the Navarrese and Gipuzkoan dialects, and in the northern dialects; *ei* occurs in the Biscayan dialect. Both particles are well documented, especially *omen*, but the resources for documenting the use of *ei* increased from the second half of the 19th century onwards.

     Both particles may also be used as nouns. Some observations regarding the diachrony of *omen* and *ei* as particles and as nouns are included in Section 6. *Omen* as a noun means a) 'fame, reputation, opinion about a person'; b) 'honour, homage, remembrance'. The first meaning is in common use in present-day Basque (62). The second meaning is currently limited to two cases: the construction *omen egin* (literally 'do homage') and the use with the instrumental postposition *-z* (*omenez*). *Omenez* governs genitive case (*-en*); *-en omenez* means 'in honour of, in homage to, as remembrance of' (63):

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13 Other variants are *emen* (Gipuzkoan), *umen* and *ümen* (Souletin), *emon* (Roncalese) and *men* (Upper Navarrese).

(62)   *Lehenagotik*   *saia-tu-a*   *nintzen*   *June-ren*   *omen-a-ren*
      before   try-PFV-ART   AUX.PST.1SG   June-GEN   reputation-ART-GEN
      kontra   *egi-ten.*
      against   do-IPFV
      'I had already tried before to go against June's reputation.'
                                          [E. Rodriguez: *Katu jendea*. 2010: 147]

(63)   *Ane-ren*   *omen-ez*   *egin-go*   *dugu*   *bihar-ko*
      Ane-GEN   homage-INS   do (PFV)-FUT   AUX.PRS.1PL   tomorrow-GLOC
      afari-a-Ø.
      dinner-ART-ABS
      'We'll do tomorrow's dinner in homage to/in honor of/as a remembrance
      of Ane.'

As a noun, *ei* means 'fame' as does *omen*, but its use is very restrictive and not firmly established. For example, the clause with *ei* in (64) means 'that the fame of the Basques has arrived from too far'. However, the author also used two other synonyms of *ei*, namely *ospe* and *entzute* (which do not occur as particles, but only as nouns), without which the sense of *ei* as a noun would probably not have been clear for the reader.

(64)   *Urrun-egi-tik*   *el-du*   *da-la*   *euskaldun-en*   *ei*
      far-too-ABL   arrive-PFV   AUX.PRS.3SG-COMP   Basque-GEN.PL   fame
      edo   *ospe*   *edo*   *entzute-a-Ø.*
      or   fame   or   fame-ART-ABS
      'The fame, reputation or renown of the Basques has arrived from too far.'
                                          [*Euskalzale* journal. 1897: 135a]

An example of *omen* as an evidential particle is (65):

(65)   *Cristiano Ronaldo-k*   *Saramago-ren*   *liburu*   *guzti-a-k-Ø*
      Cristiano Ronaldo-ERG   Saramago-GEN   book   all-ART-PL-ABS
      irakurr-i   *omen*   *ditu.*
      read-PFV   AUX.PRS.3SG
      'It is said that Cristiano Ronaldo has read all the books by Saramago.'

The meaning of *omen* and *ei* is a source of disagreement. Zubeldia (2011: 5, Note 5) cites many sources, such as Larramendi (1854), Lafitte (1962), Trask (1981), Wilbur (1981) or de Rijk (2008), which characterize both particles in terms of two meanings, hearsay and lack of total certainty. This position is also supported by the Royal Academy of the Basque Language, henceforth Euskaltzaindia (1987: 515):

> The modality of these particles [*omen* and *ei*] has two interrelated sides: on the one hand, they express that what is said has been heard from someone else, and on the other, that the speaker has no total certainty that this is true. [...] Therefore, these particles are used when the speaker wishes to signal that s/he does not subscribe to what has been said. In fact, everything that has not been seen is not qualified, without any reason, with the particles *omen* and *ei*. Someone who has learned something will not necessarily say 'It is said that Paris is large', although s/he has never been in Paris. These particles are not used for facts accepted with no caveats. The speaker uses them when s/he wants to hedge his / her position. (here and in the following translations are ours)[14]

Later, Euskaltzaindia (1993: 446) supports this position even more firmly: "The modality expressed by the particles *omen* and *ei* displays two sides: that the speaker heard what s/he states from someone else, and that s/he is not sure at all about the veracity of what s/he states."[15]

By contrast, the OEH-DGV only mentions the reportive value for both particles;[16] it characterizes their meaning as indicating that the information expressed has its origin in other persons or sources. This view is shared by Zubeldia's in-depth semantic-pragmatic studies on *omen* (Zubeldia 2010, 2011, 2013; Korta and Zubeldia 2014),[17] which state that the speaker's/writer's lack of certainty may be absent. As evidence in favor of this proposal, she applies the cancellability test (Grice 1975), according to which (66) and (67), but not (68), are grammatical (Zubeldia 2013: 114):[18]

(66) *Euria ari omen du, baina nik ez dut uste euririk ari duenik.*
      'It is said that it is raining, but I do not think that it is raining.'

(67) *Euria ari omen du, baina ez du euririk ari.*
      'It is said that it is raining, but it is not raining.'

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14 Original: "Partikula hauen modaltasunak bata bestearekin loturiko bi alderdi ditu: a) esaten dena besteri entzuna dela adierazten dute batetik eta b) egia denentz ezin duela hiztunak erabat ziurtatu. [...] Hiztuna esandakoaz jabe egiten ez dela markatu nahi denean erabiltzen dira, beraz, partikula hauek. Izan ere, ikusi ez den guztia ez da, besterik gabe, *omen* edo *ei* partikulen pean jartzen. Zerbait ikasia denak ez du nahitaez 'Paris handia omen da' esango, Parisen sekula izan ez bada ere. Besterik gabe onartzen direnentzat ez dira partikula hauek erabiltzen. Hiztunak bere jarrera ñabartu nahi duenean erabiltzen ditu."
15 Original: "*Omen* eta *ei* partikulek adierazten duten modaltasunak bi aurpegi erakusten dizkigu: hiztunak esaten duena besteri entzuna dela eta esaten duen horren egiatasunaz ez dagoela batere ziur."
16 http://www.euskaltzaindia.eus/index.php?lang=eu.
17 Zubeldia's works are restricted to *omen*, but her treatment of *omen* is also valid for *ei*.
18 Similar sentences are cited in Korta and Zubeldia (2014: 405–406).

(68)   *Euria ari omen du, baina inork ez du esan euria ari duela.
       *'It is said that it is raining, but nobody has said that it is raining.'

In order to confirm these grammaticality judgments, we passed the three sentences on to two speakers of Basque, who were to decide if the sentences were possible or impossible in everyday language. Both informants agreed with Zubeldia that (66–67) are possible, in that there is no contradiction between the contents of the two clauses, while in (68) contradiction does exist and hence this sentence is impossible. However, our two informants commented that they had found it difficult to imagine a suitable context in which (66) and (67) would be uttered; they suggested a context in which two persons are in a bed and one of them, still half asleep, might utter these sentences while listening to the information transmitted by the radio, just before getting up to look at the window in search of conclusive evidence.

Omen (and *ei*) can also be used when the speaker knows that the proposition is true (Korta and Zubeldia 2014: 408–409), as in the example from our data cited as (69), where the writer is Jon Kortazar, a professor of Basque literature and therefore an expert on the matter about which he writes. His use of *omen* can hardly be interpreted as lack of certainty about what he states; rather, it seems due to his wish to avoid an authoritative tone in a generic statement.

(69)   *Ipuingintza-k*   *ez*   *omen*   *du*   *nobela-k*
       short story.ART-ERG   NEG   AUX.PRS.3SG novel.ART-ERG
       beste   *ospe-rik-Ø,*   *ipuingintza-Ø*   *ez*   *omen*
       as much as   fame-PARTIT-ABS   short story.ART-ABS   NEG
       da   *nobela-Ø*   *beste*   *sal-tzen.*
       AUX.PRS.3SG   novel.ART-ABS   as much as   sell-IPFV
       'It is said that the short story does not have as much fame as the novel, it
       is said that the short story does not sell as much as the novel.'
                                       [J. Kortazar: "Ipuina haragi egin zenean". *El País*, 2-7-2011
                            http://elpais.com/diario/ 2001/07/02/paisvasco/994102811_850215.html]

Therefore, the epistemic meaning of *omen / ei* has the status of a GCI, which is communicated by default but may be cancelled or blocked:

> For this reason, I consider 'omen' as an evidential particle, and the epistemic content would surge (when it surges) in certain utterances, as a generalized conversational implicature [...] Therefore, we cannot totally associate 'omen' with modality; it does not express the speaker's degree of certainty with its meaning. By its meaning 'omen' would

be evidential, and only in certain cases it acquires an epistemic nuance, when this nuance is acquired. (Zubeldia 2011: 27)[19]

Within the cases in which the GCI operates, the communicated degree of certainty may vary depending on inferences invited by the context. There are many cases in which certainty may well be interpreted as almost total, and *omen* and *ei* serve mainly to indicate that the information was collected by means of reports of the very person(s) concerned. In these cases, of which (70) is an example, *omen* is best not translated if the target language does not have an equivalent particle to *omen* or other grammatical devices to express evidentiality:

(70) *Goiz partean Madame Kontxexik laguntzaile guztiekin hitz egin zuen. Bati ez <u>omen</u> zitzaion patea atsegin, besteak hepatitis pasa berria <u>omen</u> zuen eta pekatu larria <u>omen</u> zuen osasunarentzat patea jatea, beste batek linea gorde nahi <u>omen</u> zuela eta ez zuen egunean gaileta bat eta mahats ale pare bat besterik jaten...*
'In the morning, Madame Conchesi spoke with all her assistants. One did not like pâté (+*omen*), another had suffered from hepatitis (+*omen*) and considered (+*omen*) eating pâté as a serious sin against health, another, since he wanted to keep fit (+*omen*), would not eat but a biscuit and two grapes a day...'
[A. Lertxundi: *Paris de la France-ko pateen kasua*. 1989: 59–60]

A case of clearly weaker degree of certainty is (71), where the topic is Gernika's bombardment (and hence its distance in time). The use of *omen* implies that there were no witnesses of the conversation between the man and the girl, or at least not witnesses who remember it accurately. The author, therefore, signals a certain distance with regard to the credibility of the conversation, which could be considered as lack of commitment.

(71) *Gernika-Ø   erre-tan   egoa-la,   neskato har-ek*
Gernika-ABS burn-IPFV be.PST.3SG-when girl   that-ERG
esan   ei   Ø-eu-tso-n:
say (PFV)   AUX (ERG.3SG-VL-DAT.3SG-PST)
'When Gernika was burning, it is said that that girl told him: (...).'
[B. Enbeita: *Bizitzaren joanean*. 1986. http://www.armiarma.com/
emailuak/elkar/enbeita10.htm]

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19 Original: "Hori dela eta, partikula ebidentzialtzat dut 'omen', eta eduki epistemikoa elkarrizketa inplikatura orokortu gisa sortuko litzateke, sortzen denetan, esaldi batzuetan (...) Ezin lotuko dugu, hortaz, 'omen' modalitatearekin bete-betean; ez du hiztunaren ziurtasun neurririk adierazten esanahiz. Ebidentziala litzateke esanahiz 'omen', eta kasu batzuetan bakarrik hartzen du ukitu epistemikoa; hartzen duenetan."

Other similar cases, where the commitment to the truth of the proposition is almost irrelevant, are *omen*'s frequent occurrences in certain kinds of fiction, such as jokes, tales or legends. For example, *omen* occurs frequently in the jokes by the bertsolari[20] Pernando Amezketarra (1764–1823) (72). Another example is the beginning of Juan Manuel Etxebarria's legend on Biscay's highest hermitage (73):

(72) *Pernando-Ø   negu-a-n   Aduna-ra   joa-ten   omen zan*
     Fernando-ABS winter-ART-IN Aduna-ADL   go-IPFV   AUX.PST.3s
     bere   ardi-akin.
     his   sheep-GEN.PL
     'It is said that in winter Fernando used to go to Aduna with his sheep.'
                                             [G. Mujika: *Pernando Amezketarra*. 1925)
                                             https://klasikoak.armiarma.eus/idazlanak/M/Mujika
                                             Pernando042.htm]

(73) *Behin   bat-en,   Gorbeia-ko   mandazain   bat-Ø   Arratia-ko*
     once   one-IN   Gorbea-GLOC   muleman   one-ABS   Arratia-GLOC
     feria-ra   joan   ei   zan   San Inazio   bezpera-n.
     fair-ADL   go (PFV)   AUX.PST.3s   Saint Ignatius   Eve.ART-IN
     'It is said that, on a certain occasion, a muleman from Gorbea mountain went to Arratia fair on Saint Ignatius' Eve.'
                                                           [https://bizkaie.biz/1462833842969]

In contrast to the degree of certainty, the reportive meaning is context-independent and belongs to the semantics of *omen* and *ei*. Alcázar (2010: 146–147) cites two examples of *omen* from the Basque translation of the Spanish *Consumer Eroski* magazine, which refer to facts and which are not cases of reportive evidentiality ((74–75); the addition of "[it's said]" is ours). These examples sound non-idiomatic in both spoken and written Basque, and *omen* preserves its meaning in them, so that they do not provide evidence against the semantic status of the reportive meaning (although they do illustrate the difficulties that particles like *omen* pose to translators):

(74) *Nik neuk euskailu kimikoz baliatuz segituko omen dut, ene postprodukzioa digitala izanagatik.*
     'I think [it's said] I will continue using chemical support, in spite of my postproduction being digital.'

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20 'Bertsolari' is a person who sings verses, most often improvised. The Basque tradition of *bertsolarism*, which started before the use of written language, has continued up to the present time.

(75)   *Ikuspegi horretatik, neu ikasten saiatzen naizenean, ikasleei egokitzen*
       ahalegintzen naizenean bakarrik irakasten omen dut.
       'From that perspective, [it is only] when I myself try to learn, only when I
       make an effort to adapt to my students, [it's said] that I teach.'

Alcázar (2010: 147) also points out that *omen* can be used as a disclaimer, but he
does not provide any examples that show that its reportive value is totally lost.

    Another fact about *omen* and *ei* worth mentioning is that, although they
have been translated in the previous examples as 'it IS said that', and this prac-
tice will be also followed in the remaining examples in this subsection for the
sake of simplicity, *omen* and *ei* differ from the English construction in that they
are not marked for time. Consequently, when the main verb is in the past, there
is indeterminacy whether *omen* and *ei* mean *it is said* or *it was said*: they simply
qualify a proposition about the past without explicitly ascribing the communi-
cative evidence to the present or to the past. This issue deserves further re-
search, but will not be treated in this paper for reasons of space.[21]

    With regard to the status of the evidential value of *omen* and *ei*, Korta and
Zubeldia (2014: 399–405) convincingly state that *omen* is not an illocutionary
operator and that it contributes to the truth conditions of the proposition, by
means of what they call the 'assent-dissent test' and the 'scope test': both tests
show that, in negative clauses with *omen*, not only the reported content but also
the evidential content may be within the scope of a negation operator, as in the
example cited here as (76), where *omen* lies under the scope of *ez da egia* 'it is
not true':

(76)   *Ez   da   egia-Ø   euri-a-Ø   ari   omen*
       NEG   be.PRS.3SG   true.ART-ABS   rain-ART-ABS   PROG
       du-ela.
       AUX.PRS.3SG-COMP
       'It is not true that someone else stated that it is raining.'

Korta and Zubeldia provide further evidence for their position: *omen* can occur
within the scope of communication predicates such as *esan* 'say' and
knowledge predicates such as *kontuan hartu* 'take into account'.

    However, despite belonging to the content of a proposition, *omen* and *ei*
cannot be directly under the scope of negation: they can be used to express 'it is
not true that it is stated that', but not 'it is not stated that', whose equivalent in
Basque is the impersonal form with the verb *esan* 'say' *ez da esaten*.

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21 Carretero (2019: 292–293) addresses the evidential qualification of propositions about the
past with *visibly* and similar adverbs.

(77) *Ez   da   esa-ten   euri-a-Ø   ari   du-ela.*
NEG AUX.PRS.3SG say-IPFV rain-ART-ABS PROG AUX.PRS.3SG-COMP
'It is not stated that it is raining.'

We must make it clear, however, that *omen* and *ei* belong to the content of a proposition, but in their turn they have scope over a proposition, in agreement with the requirement that evidential expressions have propositions within their scope (Boye 2012). For example, *arriskutsua omen da* expresses a proposition that contains the meaning of *omen*, 'it is said that it is dangerous', and *omen* in its turn has scope over the proposition expressed by *arriskutsua da* 'it is dangerous'. The relation between the two propositions is graphically rendered as 'it is said that [it is dangerous]': *omen* belongs to the proposition expressed within double quotes and has scope over the proposition expressed within square brackets.[22]

The use of *omen/ei* has certain restrictions, which are not shared by *esan* (Zubeldia 2013: 121–123; Alcázar 2010: 133–134):
– The use of *omen/ei* is restricted to declarative clauses: they cannot occur in interrogative, exclamative or imperative structures.
– They always have clausal scope; that is, they cannot focalize on a single constituent of the clause.
– They cannot appear in certain types of subordinate clauses: conditional, purpose and subjunctive complement clauses.

To these three restrictions, we would add another:
– *Omen* and *ei* cannot be modified by adjuncts expressing circumstances of any type (time, etc.). However, *esan* in impersonal form does not have this restriction. For example, in (78), the time adverb *beti* 'always' affects *esan ohi da* 'it is usually said'; therefore, *omen / ei* would not have been possible in this case.

(78) *Ingelesari buruz, kasu, beti esan ohi da haren silaba bakarreko hitz multzo ikaragarria berealdiko abantaila dela pop musika egiteko.*
'Concerning English, for example, it is always said that its immense quantity of monosyllabic lexical items is a great advantage for composing pop music.'   [H. Cano: "Agente bikoitz baten aitorpenak". 2016: 129]

With regard to the clausal position of *omen* and *ei*, the range is as follows:

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22 Boye (2012: 198) provides a similar analysis for the evidential adjective *evident* in the example *It is evident that Bob is ready.*

a)   With periphrastic verbs:

a.1.) affirmative clauses: *omen* and *ei* are mostly placed between the main verb and the auxiliary verb, as may be seen in the examples quoted above, as in (65), cited again as (79):

(79)   *Cristiano Ronaldo-k   Saramago-ren   liburu   guzti-a-k-Ø*
       Cristiano Ronaldo-ERG   Saramago-GEN   book   all-ART-PL-ABS
       irakurr-i   omen   ditu.
       read-PFV   AUX.PRS.3SG
       'It is said that Cristiano Ronaldo has read all the books by Saramago.'

However, the OEH-DGV displays some examples of *omen* such as (80), all from French-Basque dialects (eastern dialects), with *omen* behind the compound verb, i.e. behind the main verb and the auxiliary verb.

(80)   *Berant ibil-i   dira   omen.*[23]
       be late-PFV   AUX.PRS.3PL
       'They have been late, it is said.'

a.2)   negative clauses: *omen* and *ei* occur between the negation (adverb *ez*) and the auxiliary verb.

(81)   *C. Ronaldo-k   ez   omen   ditu   Saramago-ren*
       C. Ronaldo-ERG   NEG   AUX.PRS.3SG   Saramago-GEN
       liburu   guzti-a-k-Ø   irakurr-i.
       book   all-ART-PL-ABS   read-PFV
       'It is said that Cristiano Ronaldo has not read all the books by Saramago.'

b)   With synthetic verbs:

b.1.) affirmative clauses: *omen* and *ei* are placed before the verb:

(82)   *Cristiano Ronaldo-k   ba[24] omen daki   nor-Ø*
       Cristiano Ronaldo-ERG   know.PRS.3SG   who-ABS
       ze-n   Saramago-Ø.
       be.PST.3SG-COMP   Saramago-ABS
       'It is said that Cristiano Ronaldo knows who Saramago was.'

b.2.) negative clauses: *omen/ei* are placed between the negation and the verb.

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23 Instead of "berant ibili omen dira".

24 As we stated about example (6), the prefix *ba-* functions as morphological reinforcement of synthetic verbs.

(83) *Cristiano Ronaldo-k   ez   omen   daki   nor-Ø*
Cristiano Ronaldo-ERG   NEG   know.PRS.3SG   who-ABS
ze-n   Saramago-Ø.
be.PST.3SG-COMP   Saramago-ABS
'It is said that Cristiano Ronaldo does not know who Saramago was.'

(84) *Ane-Ø   ez   omen   dator.*
Ane-ABS   NEG   come.PRS.3SG
'It is said that Ane is not coming.'

In certain cases, the verb is omitted, especially in the case of *izan* with the meanings 'be [permanent]', 'be [existential]' and 'have' [possessive]:

(85) *Euskaldun guzti-a-k-Ø   apustuzale-a-k-Ø   omen [dira].*
Basque   all-ART-PL-ABS   fond_of_bets-ART-PL-ABS   be.PRS.3PL
'It is said that all Basques [are] fond of bets.'

(86) *Mundu-a-n ez   omen   halako-rik-Ø.*
world-ART-IN NEG   something/somebody like that-PARTIT-ABS
'It is said that in the world (there is) nothing/nobody like that.'

(87) *Buru-rik-Ø   ez   du-en-a-k   txapel*
head-PARTIT-ABS   NEG   have.PRS.3SG-REL-ART-ERG   beret
beharr-ik-Ø   ez   omen.
need-PARTIT-ABS   NEG
'It is said that he who does not have a head does not (have) need of a beret.'

However, *omen* and *ei* are not totally identical as far as position is concerned. They differ in that only *omen* can also occur parenthetically after the clause over which it has scope, as in example (80) above. Mujika characterizes these cases as follows (Mujika 1988: 470):

> In my opinion, these cases are parentheticals, in which the particle appears 'outside the Verb Phrase' and not properly 'behind it'. This accounts for the pause between the verb and the parenthetical, which is the very particle. This is a resource available in the [Basque] language in order to confer more emphasis or strength to a given element of the sentence. But it cannot be said that the particle is placed after the verb inside the Verb Phrase, but it lies outside it, thus being an emphatic parenthetical.[25]

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25 Original: "En mi opinión, se trata de incisos en los que la partícula aparece "fuera del sintagma verbal" y no propiamente "detrás". De ahí la pausa que se hace entre el verbo y el

However, the same reference states that *omen* is never focal when it occurs close to the verb (Mujika 1988: 467). The same may well be stated for all the occurrences of *ei*. This different informational prominence of *omen* depending on its position reminds of the opposition between two critical forces, iconicity and information structure, which Nuyts (2001: 263–270) identifies as the reason for the syntactic variation of epistemic modal expressions in languages. In our view, the study of this opposition can also be applied to evidential expressions. Iconicity pushes evidential expressions to a position outside the clause, in accordance with the fact that evidentials are operators that have propositions under their scope. By contrast, information structure pushes evidentials to non-initial positions inside the clause, in accordance with the tendency of evidential expressions to be non-focal. With the caveat that Nuyts (2001) is based largely on English and Dutch (even though he mentions other modern languages such as German and French and European languages in older periods such as Old English and Middle Dutch), we may tentatively state that these forces also apply to the different positions of *omen*. The intra-clausal positions described above are chosen when the information-structural factor (i.e. no-focality) is considered as a priority, while the parenthetical position is chosen when the most important force is iconicity, i.e. when language users lay emphasis on *omen* as a qualifier of the proposition lying under its scope.

As further evidence for this non-focality in intra-clausal position, *omen* in written language is always an independent word, but in spoken language it constitutes an accentual unit with the verb, which has phonetic repercussions. A rule of Basque phonetics is:

$$[s] \rightarrow [ts] \ / \ n \ \underline{\quad}$$

That is to say, the sibilant predorsal fricative undergoes affrication when preceded by [n] (and also by [r] or [l]).[26] Compare an example:

(88) *Egin zuen.* ('S/he did it.') → '*egintzuen*'
 [egín swèn] → [egíntswèn]

Since *omen* ends with /n/ and many past auxiliary verbs start with /s/, affricates are produced in spoken language. This kind of affrication is captured in many texts where *omen* and the past auxiliary started with /s/ occur as a single word

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inciso, que no es otro que la partícula. Se trata de un recurso del que dispone la lengua para dar mayor énfasis o fuerza a algún elemento de la oración. Pero no se puede decir que vaya detrás del verbo dentro del mismo sintagma verbal, sino que se halla fuera de este, constituyendo un inciso enfático."

26 This affricatization is part of a larger-scale phonetic change towards neutralization.

with a *t* between them (the way to reflect the affrication of the fricative sibilant), in order to reflect spoken language:

(89) *Ederki*   *afal-tzen*   *omen-tzuen.*
      very well   dine-IPFV   it is said-AUX.PST.3SG
      'It is said that she dined very well.'
            [*Eusko-Folklore Journal*, 1957: 81. http://www.euskomedia.org/PDFAnlt/
                                                                munibe/1957081096.pdf]

14.3.3 Other expressions of hearsay

Basque also has several expressions with complement clauses pointing to the existence of rumors. Some of the complex predicates that are constructed with a complement clause (whose verb takes the complementizer suffix *-ela*) are nouns (*zurrumurrua*, *hotsa* 'rumor', *berria*, *albistea* 'news', etc.) accompanied by verbs such as *zabaldu* 'spread', *ibili* 'walk':

(90) *Zurrumurru-a-Ø*   *dabil*   *Cristiano Ronaldo-k*   *ez*
      rumor-ART-ABS   walk-PRS.3SG   Cristiano Ronaldo-ERG   NEG
      daki-ela   *nor-Ø*   *ze-n*   *Saramago-Ø.*
      know.PRS.3SG-COMP   who-ABS   be.PST.3SG-COMP   Saramago-ABS
      'It is rumored that Cristiano Ronaldo does not know who Saramago was.'

The noun is often omitted, and the meaning of hearsay is expressed with adverbs such as *bala-bala* ('from mouth to mouth, profusely'):

(91) *Bala-bala*   *dabil*   *Cristiano Ronaldo-k*   *ez*
      profusely   walk-PRS.3SG   Cristiano Ronaldo-ERG   NEG
      daki-ela   *nor-Ø*   *ze-n*   *Saramago-Ø.*
      know.PRS.3SG-COMP   who-ABS   be.PST.3SG-COMP   Saramago-ABS
      'It is rumored that Cristiano Ronaldo does not know who Saramago was.'

Another structural possibility is the function of the complement clause as noun complement instead of a verb complement, with one of the hearsay nouns cited above ('the rumor that Cristiano Ronaldo…'). In this case, the complement clause is placed on the left of the head noun (which agrees with the Basque order of constituents of the noun phrase, as stated in Section 14.1.3.1), and the complementizer suffix *-ela* is followed by the derivative suffix *-ko*, which converts verbal complements into nominal complements (*dakiela* 'that he knows' turns into *dakielako*). The subject may precede the predicate, as in (92), or the predicate may precede the subject (93).

(92) *Cristiano Ronaldok Saramago nor zen ez dakielako zurrumurrua bala-bala dabil.*
The rumor goes from mouth to mouth that Cristiano Ronaldo does not know who Saramago was.'

(93) *Bala-bala dabil Cristiano Ronaldok Saramago nor zen ez dakielako zurru-murrua.*
'The rumor goes from mouth to mouth that Cristiano Ronaldo does not know who Saramago was.'

The difference between (90)–(91) and (92)–(93) is structural, not semantic; on the other hand, it must be noted that (93) is preferable over (92), since it is easy for speakers/writers to code and for addressees to decode, for the reason that the shorter Verb Phrase *(bala-bala dabil)* precedes the long subject noun phrase *(Saramago nor zen ez dakielako zurrumurrua).*

14.4 Perceptual expressions

This section deals with expressions specifying perceptual evidence. The analysis is restricted to the uses agreeing with Anderson's (1986: 274) second criteria, i.e. to the uses in which the expressions are not the main predication of the clause. Accordingly, the verb *ikusi* 'see' and other verbs or perception will be excluded when they function as matrix predicates, as in (94), where *ikusi* is constructed with a complement clause with the suffix *-ela* as direct object. *Ikusi* can also govern a two-argument construction, with a noun phrase functioning as a direct object in the absolutive case, and a verbal nominalization (*-tze*) with the inessive bound postposition *-n*, as in (95):

(94) *Jon-Ø   kale-a-Ø   zeharka-tzen   ari   ze-la*
      Jon-ABS   street-ART-ABS   cross-IPFV   PROG   AUX.PST.3SG-COMP
      ikus-i   dut.
      see-PFV   AUX.PRS.1SG
      'I have seen that Jon was crossing the street'.

(95) *Jon-Ø   kale-a-Ø   zeharka-tze-n   ikus-i   dut.*
      Jon-ABS   street-ART-ABS   cross-NMLZ-IN   see-PFV   AUX.PRS.1SG
      'I have seen Jon cross/crossing the street.'[27]

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27 According to Arteatx (2012: 409), the difference marked by the feature [± progressive] does not appear to exist in Basque, where the subordinate verb always takes the morpheme *-t(z)en*.

By contrast, other constructions with *ikusi* are included here, such as *ikusten dudanez* 'from what I see' (formed by *ikusten dut* 'I see' + *-nez*; see Section 14.3.1), *ikusten denez* 'according to what is seen' (formed by *ikusten da* 'it is seen' + *-nez*):

(96) *Ikus-ten*   *duda-n-ez,*   *zapata*   *distiratsu-a-k-Ø*
      see-IPFV   AUX.PRS.1SG-REL-INS   shoe   brilliant-ART-PL-ABS
      moda-n   *daude.*
      fashion.ART-IN   be.PRS.3PL
      'From what I see, brilliant shoes are fashionable.'

(97) *Ikus-ten*   *de-n-ez,*   *festa*   *itzel-a-Ø*
      see-IPFV   AUX.PRS.3SG-REL-INS   party   unbelievable-ART-ABS
      da.
      be.PRS.3SG
      'According to what is seen, it is an unbelievable party.'

With these constructions, evidentiality is always indirect: in (96)–(97) above, a perceptual (visual) source is combined with an inferential source. The visual meaning of *ikusi* may also be metaphorically used to communicate inferential-conceptual or inferential-reportive evidentiality:

– Inferential-conceptual:

(98) *Ikus-ten*   *duda-n-ez,*   *kalkulu*   *hau-ek-Ø*
      see-IPFV   AUX.PRS.1SG-REL-INS   calculation   this-PL-ABS
      akats-ez   *josita*   *daude.*
      error-INS   full   be.PRS.3PL
      'From what I see, these calculations are full of errors.'

– Inferential-reportive:

(99) *Ikus-ten*   *de-n-ez,*   *jende-a-Ø*   *kexa-tu*
      see-IPFV   AUX.PRS.3SG-REL-INS   people-ART-ABS   complain-PFV
      egin   *da.*
      do (PFV)   AUX.PRS.3SG
      'Apparently, people have complained.'

These expressions also have the epistemic meaning of lack of total certainty, which is a non-cancellable semantic feature of *ikusten dudanez* and *ikusten denez*.

There are also constructions with nouns or adjectives of sight, which have evidential uses, such as *guztien bistara* 'at the sight of everyone' (*guzti-en* 'all'-GEN.PL; *bista-ra* 'sight'-ADL); *begi hutsez* 'by the naked eye' (*begi* 'eye'; *huts-ez* 'mere'-INS); *lehen begi-kolpean* 'at first sight' (*lehen* 'first'; *begi* 'eye'; *kolpe-a-n*

'blow'-ART-IN); *guztien agerian* 'at the sight of everyone' (*guzti-en* 'all'-GEN.PL; *ageri-a-n* 'discovered, manifest'-ART-IN):

(100) *Guzti-en   bista-ra,   Messi-Ø   jokalari   ikaragarri-a-Ø*
       all-GEN.PL   sight-ADL   Messi-ABS player   impressive-ART-ABS
       da.
       be.PRS.3SG
       'At the sight of everyone, Messi is an impressive player.'

(101) *Lehen   begi-kolpe-a-n,   ordenagailu hau-ek-Ø   kalitate*
       first   eye blow-ART-IN   computer   this-PL- ABS   quality
       on-eko-a-k-Ø   dira.
       good-GLOC-ART-PL-ABS   be.PRS.3PL
       'At first sight, these computers are good quality.'

The evidentiality of these expressions is indirect: in (100)–(101) a visual source is combined with an inferential source. In the cases of *begi hutsez* and *lehen begi-kolpean*, there is an epistemic GCI of non-total certainty, which may be cancelled, as in (102):

(102) *Lehen begi-kolpean, ordenagailu hauek kalitate onekoak dira, baina haiekin zenbait egunetan lan egiten baduzu, konturatzen zara ez direla hain onak.*
       'At first sight, those computers are good quality, but if you work with them for a few days you realize that they are not so good.'

14.5 Indirect indifferent expressions

This section concerns expressions of indirect indifferent evidentiality, i.e. where the evidence is indirect and the main source is not clear. In some of their occurrences, the inferential or reportive source is explicitly expressed or implicated by the linguistic or situational context.

14.5.1 Adverbial clauses meaning 'as it seems'

Basque has a wide range of expressions equivalent to Engl. *as it seems*. To start with, there are adverbial clauses with the verbs *irudi* and *eman* (see Section 14.2.1), which occur in adverbial clauses. The following three constructions are equivalent:

- *Dirudienez* 'as it seems', formed by *dirudi* 'seems' + suffix *-enez* 'according to' (see Section 14.3.1).
- *Iduri duenez* 'as it seems', formed by *iduri du* 'seems' + suffix *-enez*;
- *Ematen duenez* 'as it seems', formed by *ematen du* 'seems' + suffix *-enez*.

These three constructions are illustrated in (103):

(103) a. *Dirudi-en-ez,*   *Begoña-Ø*   *eta*   *Jon-Ø*
       seem.PRS.3SG-REL-INS   Begoña-ABS   and   Jon-ABS
       ederki   *molda-tzen*   *dira.*
       very well   get-IPFV   AUX.PRS.3PL
    b. *Iduri duenez, Begoña eta Jon ederki moldatzen dira.*
    c. *Ematen duenez, Begoña eta Jon ederki moldatzen dira.*
       'As it seems, Begoña and Jon get on very well.'

Three authentic examples are (104)–(106), in which the main source of evidence is not known: for instance, we do not know whether the main basis of the journalist who uttered (104) lies in what he was told by sources such as the neighbours or the police, or in the inferences he made when he visited the place of the incidents:

(104) *Bi*   *kotxe-Ø*   *erre*   *dira*   *Irun-en,* *dirudi-en-ez*
       two   car-ABS   burn (PFV)   AUX.PRS.3PL   Irun-IN   seem.PRS.3SG-REL-INS
       nahita   *piztutako*   *sute-engatik.*
       deliberately   lightened   fire-MOT.PL
       'In Irun two cars have been burnt, apparently by intentional fires.'
                               [Web of the public Basque Radio-television (EITB).
            http://www.eitb.eus/eu/albisteak/gizartea/osoa/808465/bi-kotxe-erre-
                             dira-irunen-nahita-piztutako-suteengatik/]

(105) **Ematen duenez** *bakoitzak nahi duena irakurtzen du besteek idazten*
       dutenetik.
       '**As it seems**, everyone reads what they want, from what others write.'
         [http://zuzeu.eus/2013/11/26/herritarron-eredu-hirueledunaren-alde/]

(106) **Dirudienez** *lantzen duen estetika oso deigarria zaie epaimahaikoei, eta*
       <u>*dirudienez*</u> *ez soilik mahai horretakoei.*
       '**As it seems**, the aesthetics that he uses is very showy to the members of
       the jury and, <u>as it seems,</u> not only to those of that jury.'
                        [Jon Kortazar, "Munduari bira", *El País*, 22-10-2007.
            http://elpais.com/diario/2007/10/22/paisvasco/1193082006_850215.html]

Basque also displays other constructions with the same meaning:

– *Antza denez/itxura denez*, formed by the nouns *antz* 'appearance' or *itxura* 'aspect' with definite article (-*a*) and absolutive case (Ø) plus *denez* (*da* 'is' + -*enez*); *itxura* may occur on its own, with the instrumental bound postposition (*itxuraz*), or before *batean* (*bat* 'one' plus the definite article -*a* and the inessive bound postposition -*n*): *itxura batean*. (108) is an example from the corpus.

(107) *Antza denez/itxura denez/itxuraz/itxura batean, Begoña eta Jon ederki moldatzen dira.*
       'As it seems, Begoña and Jon get on very well.'

(108) *Antz-a-Ø*   *de-n-ez,*   *ontzi-a-k-Ø*
       appearance-ART-ABS   be.PRS.3SG-REL-INS   crockery-ART-PL-ABS
       garbi-tze-a-Ø   *gusta-tzen*   *za-i-o*
       wash-NMLZ-ART-ABS   like-IPFV   AUX (ABS3SG-VL-DAT3S)
       'As it seems, she likes washing up.'   [R. Saizarbitoria: *Martutene*. 2012]

– *Agidanez,* composed by the noun *agi* 'phenomenon, event', the verb *da* 'is', from *izan* 'be-permanent', and the suffix -*enez*. *Agi izan* is a verb whose meaning is 'appear, manifest oneself as', but is most frequently used in the fossilized adverbial form *agidanez*. *Aidanez* is an alternative form, which has lost the intervocalic plosive voiced /g/, which is a usual phenomenon of spoken Basque.[28] Another alternative form is *agidanean*, where the bound postposition is inessive instead of instrumental:

(109) *Agidanez/aidanez/agidanean, Begoña eta Jon ederki moldatzen dira.*
       'As it seems, Begoña and Jon get on very well.'

In all these examples, the evidential expression may also appear at the end of the utterance (110), as an afterthought. This position is the most habitual one for *antza* when it appears on its own, without *denez* (111). An example from the corpus is (112):

(110) *Begoña eta Jon ederki moldatzen dira, agidanez/antza denez.*

(111) *Begoña eta Jon ederki moldatzen dira, antza.*
       'As it seems, Begoña and Jon get on very well.'

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28 The word *aidanez* was popularized even in written language due to the title of Anjel Lertxundi's novel *Hamaseigarrenean aidanez* ('At the sixteenth time, as it seems'), published in 1983.

(112) *Haize-a-ren   portaera-Ø   alda-tzen   ari   da,*
wind-ART-GEN behavior.ART-ABS change-IPFV PROG AUX.PRS.3SG
agidanez.
'The behavior of the wind is changing, as it seems.'
[http://www.argia.com/argia-astekaria/2181/haizearen-portaera-
aldatzen-ari-da-agidanez]

The occurrence of these expressions in initial and final position and detached from the rest of the clause indicates that their clausal position is determined by Nuyts' (2001) principle of iconicity, that is, their clausal position highlights that they lie outside the structure of the clause and have the proposition indicated by the clause under its scope.

Apart from the evidential meaning, these adverbial expressions have an epistemic meaning: they cannot be used when the speaker/writer knows that the proposition is either true or false. In other words, the speaker/writer communicates lack of total certainty of the truth (or of the falsity) of the proposition. In this respect, they are different from *omen* and *ei*.

14.5.2   The particle *bide*

The evidential particle *bide* has a homonymous noun, which means 'path, way'. The online dictionary *Elhuyar*[29] offers the following translations for the particle *bide* into Spanish: *según parece, al parecer, por lo visto; parece (que), se dice (que); probablemente, seguramente* 'as it seems, apparently; it seems (that), it is said (that), probably, certainly'. The OEH-DGV offers *probablemente, seguramente, al parecer* 'probably, certainly, apparently', as well as *deber de* (epistemic 'must'). As for the source of evidence, the coexistence of reportive and inferential expressions in the translations offered is an argument for its classification as an indirect indifferent evidential. This wide range of translations also attests the strong association between epistemic modality and evidentiality; the meaning of *bide* is best characterized as inference that 1) derives from evidence and 2) does not result in total commitment; the second element leads to the consideration of *bide* as an epistential in a similar way to *behar*. Besides, the OEH-DGV example *etorri bide da*, with the Spanish translation *debe de haber venido* 's/he must have come' suggests a complementary distribution between both devices: *bide* is used with perfective aspect as well as with imperfective aspect, while

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29 https://hiztegiak.elhuyar.eus.

behar tends to occur with imperfective aspect (see Section 14.2.2). For the sake of simplicity, *bide* will be translated in the examples as 'apparently'. (113) is a constructed example, parallel to those constructed for the adverbial expressions; (114) is an example from the corpus:

(113) *Begoña eta Jon ederki moldatzen **bide** dira.*
  '**Apparently**, Begoña and Jon get on very well.'

(114) *1980ko   hamarkada-n,   drog-ek   har-tu   zuten*
  1980-GLOC   decade.ART-IN   drug-ART.PL.ERG   raze-PFV   AUX.PST.3PL
  *Euskal Herri-a-Ø,   eta   horr-ek ekarr-i   **bide***
  Basque Country-ART-ABS   and   that-ERG   bring-PFV
  zuen   hies-a-Ø.
  AUX.PST.3SG   AIDS-ART-ABS
  'In the decade of the 80s, drugs razed the Basque country to the ground, and that, **apparently**, brought AIDS'
  [*Berria* journal, 25-8-2012. P://www.berria.esu/paperekoa/1519/007/ 001/2012-08-25/ prebentzioaren_inguruko_heziketa_da_hiesari_aurre_ egiteko_giltza.htm]

Bide, like *omen* and *ei*, occurs sometimes with *esan*, in which case a report is qualified as indirect evidence:

(115) *"Ez itzul-i"   esan   **bide** z-i-o-n.*
  NEG come back-PFV   say (PFV)   AUX (ERG.3SG-VL-DAT.3SG-PST)
  '"Don't come back" he **apparently** told her.'
  [R. Saizarbitoria: *Hamaika pauso*. 1995: 45]

Bide has the same meaning as the evidential adverbials described in Section 14.5.1, and also shares the epistemic feature of lack of certainty. However, *bide* differs from the adverbials in that its possible syntactic positions are the same as those of *ei*, and also the same as those of *omen* with the difference that *bide* never occurs in final position (see Section 14.3.2). Therefore, its position varies depending on the synthetic or periphrastic kind of the verb and on the positive or negative polarity of the sentence. The syntactic position of *bide* is, therefore, not determined by iconicity but by information structure, concretely by its non-focality. In contrast, the fact that *bide* does not belong to the syntactic structure of the clause is not highlighted.

14.5.3 The adverb *nonbait*

The adverb *nonbait* 'as it seems' has great positional mobility. *Nonbait* tends to be placed in initial or final position, detached from the clause by a pause in spoken language and by a comma in written language (116–117). (118) is an example from the corpus. It may also occur as a parenthetical in medial position, as in (119).

(116) ***Nonbait**, Begoña eta Jon ederki moldatzen dira.*
'**As it seems**, Begoña and Jon get on very well.'

(117) *Begoña eta Jon ederki moldatzen dira, **nonbait**.*
'Begoña eta Jon get on very well, **as it seems**.'

(118) ***Nonbait**, infernuak badik bere grazia.*
'**Apparently**, hell has its grace.'
[TV, ETB1, spoken example heard from singer Amaia Zubiria in the programme "Bisitaria", 8 March 2012]

(119) *Begoña eta Jon, **nonbait**, ederki moldatzen dira.*
'Begoña and Jon, **as it seems**, get on very well.'

Nonbait, therefore, resembles the adverbials described in Section 14.5.1 and differs from *bide* in that its clausal scope is highlighted, so that its syntactic positions are determined by the principle of iconicity. However, in contrast to the adverbs, *nonbait* is not derived from a noun or verb of appearance; its meaning is derived from a locative meaning 'somewhere, in some place' (it must be noted that *non* 'where' is inessive).

Like all the indirect indifferent expressions described above, *nonbait* has a non-cancellable semantic feature of lack of total certainty, so that it may be semantically characterized as epistential.

14.6 Remarks on diachrony

This section includes a number of observations about the origin of some of the expressions analyzed in the preceding sections. With regard to *behar* 'must', its epistemic meaning is relatively recent: in the OEH-DGV, the epistemic meaning appears last among the meanings listed in 14.2.2, and the earliest attested examples date from the beginning of the nineteenth century; since then, its use has been growing in the North and in the South of the Basque-speaking region. The development of this epistemic meaning agrees with the path from deontic

to epistemic meaning, widely attested in diachronic studies of modal expressions in many languages (Bybee et al. 1994; Hansen and De Haan 2009). This path may well coalesce with the influence of Spanish and French, both of which have polysemous deontic – epistemic modal auxiliaries.

The diachrony of *omen* has still not been included in the *Euskal Hiztegi Historiko eta Etimologikoa* ('Basque Historical and Etymological Dictionary') (Lakarra et al. 2019). Up to date there is no agreement in the unfinished *Diccionario Etimológico Vasco* ('Basque Etymological Dictionary') by Agud and Tovar (1989–1995), which collects the largest number of *omen* etymologies proposed until 1995. Most experts agree on the Latin origin of this word; among the Latin proposals for etymology, the most widely accepted is *omen* 'augur, presage', but there are also *nomen* 'name', which also has the sense 'fame, reputation', and *lumen* 'light, resplandor'.

The use of *omen* and *ei* as nouns, mentioned in Section 14.3.2, and their evolution to particles might well be related to the Spanish expression *es fama que* (literally 'it is fame that'), now dated. Two examples from the literature are (120) and the more recent (121):

(120)   *Este libro, señor compadre, tiene autoridad por dos cosas: la una, porque él por sí es muy bueno, y la otra, porque <u>es fama que</u> le compuso un discreto rey de Portugal.*   [Miguel de Cervantes: *Don Quixote*. 1605. Part I, Chapter 6]
'This book, gossip, is considerable upon two accounts; the one, that it is very good in itself; and the other, because <u>there is a tradition that</u> it was written by an ingenious kind of Portugal.'

[Translation by Charles Jarvis. 1742]

(121)   *Recordé que <u>es fama</u> entre los etíopes <u>que</u> los monos deliberadamente no hablan para que no los obliguen a trabajar y atribuí a suspicacia o a temor* el silencio de Argos.   [Jorge Luis Borges, 'El inmortal', 1947]
'I recalled that <u>it is generally believed</u> among the Ethiopians <u>that</u> monkeys deliberately do not speak, so that they will not be forced to work; I attributed Argos' silence to distrust or fear.'

 [Jorge Luis Borges. "The immortal." Translation by Andrew Hurley. 1988]

As for *bide*, the OEH-DGV does not specify whether there is any diachronic relation between the particle and the noun. In contrast, Mujika (1988: 477) does state that the evidential particle may well derive from the honomymous noun, through the conventionalization of some expressions such as *bide dela* 'as is supposed' (etymologically *bide* + *da* 'is' + suffix COMP *-ela*) or *eratu ni bide naiz* 'I must have gone mad' (etymologically *eratu* 'get mad' + *ni* 'I' + *bide* + *naiz* 'am'), found in texts dated from the early 17th century, as collected in Michelena (1964).

14.7 Conclusions

This paper provides a detailed analysis of the Basque expressions corresponding to the crosslinguistic evidential hyperlexemes SEEM, MUST, SAY, ACCORDING to and SEE. Through the analysis of these expressions, the paper has shown that Basque displays a wide array of expressions of evidentiality. These expressions are shown to have a high degree of idiosyncrasy, motivated by the peculiar etymology of some of them, the subtypes of evidence with which they can be used, the syntactic type, their clausal position (which may be mainly motivated by iconicity or by information structure), and their relationship with epistemic modality. For instance, *behar, bide* or *nonbait* have both evidential and epistemic semantic features, while in *omen* and *ei* have an evidential semantic feature and an epistemic Generalized Conversational Implicature.

The linguistic richness of the category of evidentiality in Basque leads us to recommend further research on individual evidential expressions along the lines of the existing research on *omen*, which would increase knowledge of the Basque language and provide valuable data for crosslinguistic studies on evidentiality.

Abbreviations in glosses (not included in LGR)

ADL	adlative (bound postposition)
ADVS	adverbial suffix
DER	derivative suffix
GLOC	genitive-locative (bound postposition)
IN	inessive (bound postposition)
MOT	motivative (bound postposition)
PARTIT	partitive (article)
VL	verb lexeme

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Appendix (Sources of the corpus created by Karlos Cid Abasolo)

Texts from contemporary Basque literature (20th and 21st centuries)

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Part VI: **Results**

Björn Wiemer
15   Conclusions and outlook

This concluding chapter aims at a synthesis of the "evidential profiles" supplied in the preceding language-specific chapters. Lexical markers will be surveyed on the background of grammatical marking. The chapter accounts both for recurrent phenomena (marker types, functional patterns, etc.) and, alternatively, for phenomena that are more outstanding since they are more saliently represented only in some languages (or even only one language), while they appear to be absent, or infrequent, in other languages. Phenomena of the latter kind can be taken as indicative of areal biases within Europe, and we may ponder on the extent to which such biases correlate with the genealogical affiliation of the respective languages. Although the languages of this volume occupy centre stage, additional language material will be taken into account if appropriate. At any rate, references will be made to a moderate extent since no really comprehensive account of entire Europe is intended. At present, this aim would not be realistic in view of the relatively limited areal and genealogical coverage of this volume, and since many phenomena have remained understudied, or even overlooked. The focus of this survey will be rather on fleshing out salient observations and on pinpointing research issues that certainly require and deserve more systematic investigation, both from a cross-linguistic perspective and in terms of in-depth studies.

After all, one might ask whether phenomena that are well-attested across the board in the languages of this volume – and which, thus, do not discriminate these languages from each other – help determine a kind of "European-like devices" of marking evidential values. That is, we may wonder to what extent phenomena which are widespread in the languages considered here – and which are relevant for a comprehensive typology of evidentiality marking – are indicative of Europeanisms, i.e. of Europe as a linguistic area, on a worldwide background. Of course, in order to approach this last question we should know more about diverse function words, construction types and extensions of non-evidential marking devices (e.g., verb paradigms from the TAM domain) into evidentiality proper (i.e. about the areal spread of evidential strategies) on a literally global scale. For obvious reasons, this issue cannot be tackled here; instead, it rather states a long-term research agenda for a larger community of specialists.

The chapter is structured as follows. I will first summarize more general, recurrent properties assembled in the language-specific chapters of this volume. This includes not only the origin and form of the relevant expressions, but also a comparison of the constructions in which they participate and of their func-

tion ranges. Already at this stage we can discern subtle, but presumably not unimportant differences that may contribute to a more fine-grained typology of evidentiality marking (Section 15.1). Subsequently, salient features of particular languages and areal biases will be dwelt upon (Section 15.2). The last section summarizes the observations and evaluates them taking into consideration some recurrent methodological issues (Section 15.3). The aim will not, and cannot, be to provide ultimate solutions; instead, I want to identify problem areas among which some seem to have been neglected, or glossed over, so as to contribute to a 'to do' list on the way towards a comprehensive typology of evidentiality marking (which also accounts for its relations with neighboring substance domains).

I will insert explicit references to the language-specific chapters of this volume only scarcely, since the respective information can easily be retrieved from the relevant chapters and this should be obvious from the running text. If however I quote examples from these chapters, the number of the example in the respective chapter will be indicated in square brackets beneath the running number of the present chapter.

15.1 Recurrent phenomena

I will first survey facts concerning verbs and verbal constructions (as clausal nuclei), i.e., phenomena close to the grammatical end of the morphologization cline (see Fig. 2 in Wiemer and Marín-Arrese, this volume), jointly with units lexicalized from particular verb forms. Subsequently, I will try to summarize insights on sentence adverbs and function words. The latter are less "convenient" inasmuch as generalizations are less obvious, and if they can be formulated they almost only concern semantic changes or function ranges, but not correlations between meaning and form. This can, at least partly, be explained from the fact that function words with evidential meanings are propositional modifiers with low, if any, integration into clausal syntax (provided they are not heads of tighter constituents, like adpositions or complementizers).

As for the verbal domain, most common are constructions with the necessity modal MUST and with SEEM-verbs; both occur as parts of complex predicates or of constructions which, following early generative theories, are often called 'raising'.[1] Most of these constructions are confined to inferential evidentiality and, if reportive functions are acquired, these can be characterized as exten-

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1 More particularly, we are dealing here with Subject-to-Subject Raising.

sions from inferential usage. This has happened to SEEM-based, but hardly to MUST-based units (or constructions).

15.1.1   Necessity modals: MUST

As concerns the inferential domain, a common denominator of MUST-constructions in all languages described in this volume is their relative indifference as for the knowledge background, i.e. most of these constructions do not by themselves differentiate between perceptual and conceptual triggers of inferences. In some languages, MUST-units are attested even for discourse-based triggers, e.g., Gal. *deber* in (1) and Ba. *behar* (2), or they are used in "absurd conclusions", i.e., when the speaker does not believe in the existence of something (e.g., angels) which serves as the basis of their conclusion; compare Germ. *müssen* in (3).

(1)   Galician

[43]   *Cóntase no relato, e*

esto   fai   pensar   que   *o seu autor*   **debeu**
this   make.PRS.3G think.INF   that   his author   must.MOD-PST-3SG

ser   persoa   moi   relacionada   coa igrexa,
be.INF   person   very directly   connected   to church

que esta paz se debeu sobre todo á acción intelixente e determinada do cabildo.

'The story tells us, and **this suggests that** the author **must have been** a person directly connected to the Church, that this peace was mainly achieved thanks to the intelligent and determined action of the church.'

(2)   Basque

[35]   *Onezkero neska zirzill ark, nik aditu nubenez, Madrill-aldeko komenturen batean*

*sartu-a   izan   **behar**   du   moja.*
enter-ART   be (PFV)   AUX.PRS.3SG   nun

'That shabby girl, according to what I heard, **must** have already become a nun in a convent in the Madrid area.'   [Valeriano Mocoroa, 1897]

(3)   German

[23]   *Ich   **muss**   wohl   ein-en   Schutzengel*
1SG.NOM   must.PRS.1SG   PTC   ART-M.ACC.SG   guardian angel

ge-hab-t   hab-en,
PTCP-have-PTCP   AUX-INF

der mich in letzter Minute gerettet hat. Richtig realisiert habe ich das bis heute nicht, was ich damals für einen [sic] *Glück hatte.*

'I **must** have had a guardian angel who has saved me at the last minute. Until now I haven't really realized how lucky I was at the time.'

[*Braunschweiger Zeitung*, 15.05.2007]

Nonetheless, on an average, perceptual triggers are rather dispreferred in comparison to more dedicated markers (mainly sentence adverbs or particles). Epistemic MUST often occurs in contexts of more complicated inferences for which the trigger is either opaque or retrievable only via several steps (cf. in particular Mortelmans, this volume: Section 3.3.2). One may say that the more this retrieval becomes opaque the more the function of MUST boils down to simply emphasizing the speaker's conviction (without giving a reason). For a similar generalization concerning lexical markers, cf. Wiemer and Kampf (2015).

However, authors have pointed out that MUST-based inferential constructions tend to stand in opposition to epistemic uses of the future. For instance, while Gr. *prépi (na)* 'must' shows a clear preference for circumstantial (i.e. perception-based) readings, the future (with *θa*) is used for conjectures, a certain overlap exists for generic inferences (Stathi, this volume: Section 13.5.1). This corresponds to Squartini's (2008) findings concerning Italian, as discussed in Wiemer and Marín-Arrese (this volume: Section 1.3.2). An analogous claim is made for Ba. *behar* 'must' vs. future (Cid Abasolo and Carretero, this volume: Section 14.2.2). By contrast, Cat. *deure* 'must' is claimed to be quite admissible in conjectures, which would mean that it differs from its cognates in other Romance languages at least in this respect (Sentí, this volume: Section 7.2.2.1, Section 7.3.2.1). One may surmise, as does Sentí (this volume: Section 7.2.2.2), whether this encroachment of the Catalan MUST-verb into the "territory" of the future (for conjectures) might have taken place as a consequence of language policy, in order to set apart the use of *deure* from its Spanish cognate. However, Sp. *deber* is used in conjectures as well (apart from circumstantial and generic inferences), as pointed out by J. Marín-Arrese (p.c.).

Reportive extensions of MUST have been identified only exceptionally, e.g. for Du. *moeten* (cf. Cornillie 2009: 54–57). Such an extension is explicitly denied for English, German, French, Galician or Spanish, nor do they occur for Pol. *musieć* or Russ. *dolžen*.[2] Even for Du. *moeten* this extension has been disputed,

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2 This applies to both the person-number inflected auxiliary and the univerbalized particle *dolžno byt'* (lit. 'must be'), which, as basically epistemic, can be used as an inferential marker (rather with conceptual knowledge background).

among other things because the few authentic examples discussed contain other, unambiguous hearsay markers (Mortelmans, this volume: Section 3.3.2), so that an independent reportive function remains questionable.

15.1.2 Fossilized MUST, MAY, and SAY

From a form-related perspective we should remark that Sp. *deber*, if used epistemically, is often followed by the preposition *de*, and this carries over into its inferential use (Marín-Arrese and Carretero, this volume: Section 6.2.3). This observation resembles facts known about the epistemic use of necessity and possibility modals in various European languages, although Sp. *deber (de)* still combines with the infinitive and the auxiliary inflects for person-number. Other modals in epistemic use have turned into uninflected epistemic particles, either with some additional material (e.g. with the infinitive of 'be', like Engl. *maybe* or Russ. *dolžn-o by-t'* 'must-SG.N BE-INF', Lith. *turbūt < tur-i* 'have.PRS.3' + *bū-ti* 'be-INF', or with some sort of connective, as in Cr./Srb. *možda < može* 'can.PRS.3SG' + *da* irrealis marker) or without such material (e.g., Pol. *może* 'can.PRS.3SG', Cr./Srb. *mora* 'must.PRS.3SG'; for the latter cf. Kovačević 2008). Cases in which no additional material is added to the paradigmatically isolated verb form can be included in a typology of heterosemy (see Section 15.1.7). There are also cases demonstrating some intermediate stage of this lexicalization process (e.g., Mac. *mora da* 'must.PRS.3SG' + irrealis marker).[3] Such cases are important for evidentiality to the extent at which inferential meanings are associated with epistemic use of modal expressions.

　　This process leading to the rise of epistemic particles has an obvious parallel with hearsay markers of the SAYCOMP type, e.g. *dizque* in various Spanish varieties or Rom. *cică* (< *zice* 'say.PRS.3SG' + *că*.COMP), and *SAY*-based hearsay particles without additional material like Gr. *léi* or Cz. *prý* 'say.PRS.3SG' (Hoffmannová 2008). We may add here even Gal. *seica*, which is derived from another lexical source, namely *sei* 'I know' and a complementizer, and seems to be extending into reportive marking (see Section 15.1.5.2). However, the range of such processes is probably much wider in view of observations that point to emergence of such markers that appear to be "underway" in a less conspicuous manner. For instance, basic SAY-verbs may occasionally be found in the PRS.IND.3SG-form that lack agreement with a potential subject in their clause.

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3 For more details cf. Wiemer (2014: 150–162) and Hansen (2017: 272–275). Cf. also Ramat and Ricca (1994: 297–299).

Such cases have been noted for It. *dice* (Pietrandrea 2007: 56–57, with further references), Cr. *kaže* (Wiemer 2018a: 193–196), Russ. *grit* (< *govorit*; Wiemer and Letuchiy, this volume: Section 10.6.4). Cat. *diu que* (lit. 'says that') is another interesting case, because not only has *diu* obviously fossilized (< PRS.3SG), BUT together with its former complementizer *que* it can appear at the right edge of an utterance (4), or the complementizer status of *que* (or, conversely, its fusion with *diu*) is questionable (as in 5):

(4) Catalan

[70] *l'agüelo va morir de càncer o no sé què, fumae molt **diu** **que**.*

                                                say.PRS.3SG   COMP (?)

'the grandfather died of cancer or I don't know what, he used to smoke a lot, **they say**'   [Museu de la Paraula, Vallibona]

(5) Catalan

[69] *Quan era xicoteta sí, vaig estar molt mala de tos ferina, molt. Ací*

***diu** **que** no s'havia*

say.PRS.3SG   COMP (?)

conegut ninguna tos ferina com la meua.

'When I was a little girl, yes, I was really ill with whooping cough, really ill. Here it **is said that** a whooping cough worse than mine had never been known.'   [*Museu de la Paraula, Alfara d'Algímia*]

15.1.3 Future grams

The epistemic use of the future (either simple or anterior/compound) is widespread all over Europe, not only in Romance. This use is connected to what Squartini (2008) dubs 'conjectures', that is inferences for which "any evidence, both external and based on general world knowledge, is lacking" (Squartini 2008: 924). Since the conversational background for this kind of inferences is entirely unspecified, we may question whether an evidential value may be assigned to conjectures at all (Wiemer 2018a: 149–151; Wiemer and Marín-Arrese, this volume: Section 1.3.2). Regardless, there seem to be slight differences even between closely related languages. Thus, Sentí (this volume: Section 7.2.2.2) points out that "[u]nlike other Romance languages, the conjectural future and conditional have a quite restricted use in most Catalan dialects"; only in Valencian Catalan is the conjectural use of both grammatical forms more prominent. In contrast, in European Portuguese the future (both the simple and the compound future, a.k.a. future perfect) can mark reportive evidentiality, typi-

cally in journalistic discourse (Oliveira 2015). In European Spanish, in turn, the future, future perfect and the conditional mark inferential evidentiality, and the conditional perfect functions as a marker of reportive evidentiality (Marín-Arrese 2018).

Moreover, in Greek the imperfective future and the future perfect may receive an inferential interpretation, with the inference triggered by perceptual evidence and/or specific knowledge about some state of affairs. However, such instances are extremely rare; in a random sample of 2,000 occurrences such an interpretation was possible in only 0.4% of all tokens (Stathi, this volume: Section 13.3.1.1).

Conjectural (or other inferential) uses of the future have been discussed as they refer to situations holding at the time of utterance, pointing to results of preceding changes of state – with the future perfect (e.g., *The mail carrier will have come by now*) – or otherwise to states considered valid at the utterance interval – with the simple future (e.g., *That will be the mail carrier*). Notably, this usage of the future is practically unattested in Russian and other North Slavic languages (cf. the corpus-based survey by Stojnova 2017 for Russian).[4] This perspicuous lack of inferential (let alone reportive) extensions can at least partially be explained from the specific properties of the perfective:imperfective opposition and its interaction with tense, particularly in the nonpast domain. In North Slavic, no future perfect exists, and perfective stems[5] do not distinguish between present and future; future is the default interpretation of their present tense forms, but interpretations of present tense with lacking temporal localization are nothing unusual, in particular for habitual events, in conditional contexts and in the characterization of individuals or situation types (which is subsumable under dispositional or circumstantial modality). Epistemic uses are also commonplace, but these are always related to posterior events (i.e., predictions) and thus practically indistinguishable from a mere temporal use of the future, for which the denoted situation (i.e., event time) holds after speech time. Compare Polish: (6a–b), in which the perfective nonpast *przyjdzie* 'comes' is modified epistemically (in an embedded or a simple clause), refer to events posterior to speech time; by contrast, in (7) the same verb form cannot be used

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4 The only exception is the specific future form of 'be' as a copular or existential verb (Russ. *bud-et*.3SG), which can be used to mark an estimation, as in *Čto porazilo – ves knigi. Kilogramm 5 **budet** točno* 'What made me surprise is the weight of the book. It definitely weighs 5 kg [lit. *(it)* **will** *definitely be 5 kg*]' (RNC; uforum.uz).

5 By definition, they denote bounded situations.

in the verbalization of a surmise that relates to a time interval overlapping with speech time, instead an imperfective verb (*idzie* 'is coming') can be used:[6]

(6)   Polish

    a.   *Myśl-ę,*   *że*   **przyjdzi-e**   *dopiero*   *jutro.*
          think[IPFV]-PRS.1SG COMP come[PFV]-FUT.3SG only   tomorrow
          'I think that he **will come** only tomorrow.'   [own knowledge]

    b.   *Chyba*   **przyjdzi-e**   *za*   *chwil-ę.*
          probably come[PFV]-FUT.3SG after   moment-ACC
          'He probably **will come** in a moment.'

(7)   Polish

    A: *Gdzie jest Jan?*

    B: *Pewnie*   **śp-i.**   */ Pewnie*   *w tej chwili*   *już*
         certainly sleep[IPFV]-PRS.3SG   certainly   in this moment   already
         idzi-e   **/ *przyjdzi-e.**
         come[IPFV]-PRS.3SG   / [PFV]-FUT.3SG
         'A: Where is John?
         B: Certainly he **is sleeping**./Certainly he **is** already **coming/*will come** in this moment.'

In turn, the imperfective future, which is marked with a BECOME-auxiliary (Russ. *bud-*, Pol. *będ-* etc.), is not employed in conjectures about time intervals that overlap with the time of speech (see fn. 4). That is, utterances like Russian

(8)   Russian

    (Ja   *dumaj-u,)*   *teper'*   *on*
    1SG.NOM think[IPFV]-PRS.1SG now   3SG.M.NOM
    bud-et   **spa-t'.**
    FUT-3SG   sleep[IPFV]-INF
    '(I think) now he **will sleep**.'   [own knowledge]

only assert something about situations posterior to the moment of speech, they do not characterize a state which the speaker assumes to be currently holding.[7]

    In South Slavic languages the future and the present tense of perfective verbs are distinguished, since the future auxiliary is not restricted to imperfective stems. Nonetheless, as in North Slavic, the future is exceptional in epistem-

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6 To note, perfective *przyjdzie* 'comes' in (6) can be an adequate answer to A's question, but only provided it refers to a moment posterior to the current speech event.

7 Instead, sentence adverbs, particles or parentheticals (as *ja dumaju* 'I think' in ex. 8) could be used to mark the speaker's surmise and epistemic stance.

ic judgments (and inferences) about situations holding at the moment of speech; exceptions, again, in practice apply only to the 'be'-verb in copular or existential use. Compare, for instance, Bulg. *šte e* 'will be' or the "simple" form *bo*-[8] in Slovene, as in

(9) Slovene

Aha.	*To*	***bo***	*tist-a divj-a nudističn-a plaž-a,*
	DEM	be.FUT.3SG	[DEM wild nudist beach]-NOM.SG.F

o kateri so govorili oni dan.

'This **is going to be** that wild nudist beach they talked about the other day.'   [Gigafida; by courtesy of Mladen Uhlik]

An analogous remark holds true for the future perfect, which is otherwise well-suited to mark states (for Bulgarian cf. GSBKE 1983: 341–344, 348–349, and Nicolova 2008: 306–310, 315).

In the Baltic languages, the future is consistently marked with a suffix (between stem and person-number desinences) on the lexical verb (for the simple future) or a 'be'-auxiliary (for the future perfect). Although the future tense of Baltic languages has hardly been investigated from a usage-based perspective (and information in grammatical descriptions is scarce), the following can be said with some confidence, at least as concerns Lithuanian. The simple future is hardly employed as a means to express conjectures about situations that hold at the moment of speech. Whether, as in Russian, the future of 'be', *bu-s* 'will be.FUT.3' (< *bū-ti* 'be-INF'), is an exception, remains to be investigated.[9] The future perfect, in turn, has been attested as a means to express surmises applying to an anterior moment – that may be relevant for the speech interval (as in ex. 10) – or, respectively, another reference time,[10] as in (11).

(10) Lithuanian

Vag-is	***bu-s***	***įlip-ęs***	*pro*	*lang-ą.*
thief[M]-NOM.SG	FUT-3	intrude-PPA:NOM.SG.M	through	window-ACC

'The thief obviously got in [lit. **will have intruded**] through the window.'

[by courtesy of B. Spraunienė]

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9 Not all informants accept sentences like *(A: Kur Jonas?) B: Jis **bus** namuose* '(A: Where is John?) B: He **will be** at home' (to mean: 'He probably is at home'). Usually, an epistemic modifier (e.g., *tikriausiai*, *greičiausiai*, *turbūt* 'certainly, probably') has to be added to make the utterance sound natural.

10 Cf. LG (1997: 247–250), Holvoet and Pajėdienė (2004: 123), Arkadiev and Wiemer (2020: 136–137). Note that Lithuanian (like Slavic) does not know strict rules of the sequence of tenses.

(11) Lithuanian

Po pamokų atsisveikinau su merginom ir išskūbėjau į mokyklos stovėjimo aikštelę. Keista, kad tėvų dar čia nebuvo.

Man-i-au	*kad*	*j-ie*	*jau*	*sen-ai*	***bu-s***
think-PST-1SG	COMP	3-NOM.PL.M	already	old-ADV	FUT-3

***atvaži-av-ę*.**
arrive-PST-PPA:NOM.PL.M

'After school, I said goodbye to the girls and snuggled into the school parking lot. Surprisingly, the parents were not here yet. I thought they had arrived [lit. **will have arrived**] a long time ago.'

> [https://www.wattpad.com/239088782-psycho-h-s-%E2%9C%94%EF%B8%8F-24-chapter/comment/239088782__1546794444_31d4ee19f8, 30.05.2021]

Crucially, this epistemic use of the future perfect is not connected to the reportive and inferential uses of predicative present and anterior participles, in particular of present perfect forms (e.g., *Jie jau atvažiav-ę*.PPA.NOM.PL.M 'They (apparently) have arrived already'); cf. Wiemer (2006), Holvoet (2007: 81–105). Instead, the future perfect behaves in analogy to what we observe in Romance languages or German, but, again, the extent to which this option is employed in everyday speech, and whether its use implies any sort of narrowing of the basis of evidential justification, remains to be investigated.

This but cursory glance on the employment of futures, or nonpasts, in European already gives an idea that the capability of marking surmises about current moments with the (simple or compound) future is to a certain extent conditioned by the tense-aspect system. On the other hand, if a compound future (future perfect) exists it seems to be used for this epistemic purpose, which is somehow related to inferential evidentiality, and we need to investigate whether, and why, South Slavic languages and Lithuanian are more reluctant in using the future perfect for this purpose than Romance languages or German.

15.1.4 SEEM-verbs

Let us turn now to units derived from, or constructions based on, verbs of appearance. The most straightforward criterion of classifying languages is the number of such verbs. This somewhat superficial criterion "cuts" the language families in this volume, and no obvious areal clusters obtain. Languages employing only one SEEM-verb are Spanish (*parecer*), Portuguese (*parecer*), German (*scheinen*), Greek (*fénome*), and Russian (*kazat'sja*). Pol. *zdawać się* and *wydawać się* are cognates

and morphologically distinguished only by their prefix (*z-* and *wy-*); constructions with these two verbs show hardly any differences as far as evidential values are concerned. A similar remark is justified for Lith. *atrodyti* and *rodytis*. By contrast, languages with two non-cognate SEEM-units are Basque (*irudi*, *eman*) and all other Romance languages in our sample, which share two verbs that are cognates among these languages:[11] Catalan (*parèixar*, *semblar*), Galician (*parecer*, *semellar*), French (*paraître*, *sembler*); to these we can add It. *parere*, *sembrare*.

Three SEEM-verbs are employed in English and Dutch. Engl. *seem*, *appear* and *look* are considered in Marín-Arrese, Carretero and Usonienė (this volume, Section 2.2.2.); compare an example cited from López-Couso and Méndez-Naya (2012a: 180):

(12)   English
        It **looks** *as if the three of you will have a very cosy evening.*

As far as I can see, it still needs to be investigated whether, in comparison to *seem*, the range of *look* is narrower, both in terms of evidential functions (employment only in direct, visual, experience and some related perception-based inferential usage?) and in terms of syntactic versatility. Moreover, *look* shows signs of becoming fossilized, possibly together with *as if*, which otherwise can serve as a complementizer (see Section 15.1.4). This yields an analogy to the SAYCOMP units mentioned in Section 15.1.2. Compare (13) from spoken language, to which we can add the analogous case of fossilizing *sounds as though* (14); cf. López-Couso and Méndez-Naya (2012a: 180), from where these examples are cited:

(13)   English
        Looks as if *it might well have been, doesn't it?*

(14)   English
        Sounds as though *he must be.*

A further intriguing issue is the question whether, in accordance with the lexical meaning of the source verbs, these two expressions tend to be preferred with different evidential backgrounds, in particular whether *sounds as though* shows a bias towards discourse-based inferences or rather directly marks hearsay, whereas *looks as if* extends into the reportive domain at all and, if it does, the extension leads via discourse-based inferences. However, here these matters cannot be pursued further.

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11 This contrasts with the SEEM-units in Russian and Polish (see above) as well as with the SEEM-units employed in Lithuanian and its closest relative Latvian: Ltv. *šķist* 'seem' is unrelated to Lith. *atrodyti* and *rodytis* 'seem'.

Finally, Dutch is the other language with three relevant SEEM-verbs (*lijken*, *schijnen*, *blijken*); *schijnen* is cognate with Germ. *scheinen*, but constructions based on these two verbs show different functional distribution (see below).

In general, a crosslinguistic comparison of the functional distribution of constructions based on SEEM-verbs proves an extremely intricate matter. There are at least two factors which make this business so complicated. In the first place, prominent evidential functions of SEEM-based constructions are difficult to "filter out", in particular in the inferential domain in which these constructions are most widespread. Authors indicate that they are not restricted to perception-based inferences, and often such constructions are used just to mark the speaker's personal opinion, as in the following Dutch example:

(15)   Dutch

[21c]   *De dramatische liefdesrelaties zijn intens genoeg getypeerd,*

     maar verder dan die   man-vrouwproblematiek   ***lijk-t***

     but   further than those problems of man vs. woman seem-PRS.3SG

     ze   niet   te   kom-en.

     she.NOM not   to   come-INF

     'The dramatic love relationships are described with apt intensity, but she [= the author] does not **seem** to come any further than these problems of man vs. woman.'   [CONDIV-BE]

We again face the problem that, the less specific the knowledge base (or trigger) of an inference, or the justification of the uttered judgment, is the more troublesome it is to consider the respective construction (or marker) an evidential device (for this discussion see Wiemer and Kampf (2015: 183–188), Wiemer and Marín-Arrese, this volume: Section 1.3.2). Regardless of this, reference to perceptual triggers of inferences can certainly be regarded as the core function of SEEM-based constructions, since for all languages of this volume SEEM-constructions intersect in this domain. Moreover, different "ranges of tolerance" for various bases of judgment (including discourse) can be treated as a parameter of crosslinguistic comparison, and this parameter may further be correlated with construction types (see below).

Another factor which complicates the comparison of SEEM-based constructions is the relations between constructions derived from different SEEM-verbs, in case a language employs more than one verb as "input" of such constructions. Here we have to take into account also verbs like Engl. *look* and *sound* (see above), which, as lexical converses of *seem* and *appear*, treat the stimulus

of perception as subject, while the experiencer (or perceiver)[12] finds itself on the syntactic periphery. This opens up a more general point, since the typology of constructions based on perception verbs is further complicated by constructions based on perception verbs, first of all SEE. In European languages (except Basque), basic verbs of non-agentive perception (like SEE, HEAR, SENSE) behave as syntactically transitive predicates, but in many of these languages a 'middle voice' marker (which can etymologically be traced to a reflexive marker) is used to create their converses which code their arguments in the same way as do SEEM-verbs.[13] Among other things, the experiencer is syntactically deranked; if not suppressed entirely, it is coded obliquely. Compare two examples (translation retained, glossing partially adapted).

(16) Spanish

[7] *Muchas gracias por haber sacado eh... a colación este libro,*
    se ve que *usted lo... lo ha leído,*
    MM see.PRS.3SG COMP you it it have.PRS.2SG read.PST.PTCP
    y, en efecto, allí, en la aventura americana eh ... estaban ya marcados ...
    'Thank you very much for having brought ... eh ... up this book, **one can see that** you have ... you have read it and, indeed, there, in the American adventure eh ... were already marked ...'

(17) Lithuanian

[19] *Rašysen-a stambi,* ***mat-o-si,*** ***jog*** *buv-o*
    handwriting[F]-NOM.SG thick.SG.F see-PRS.3-REFL COMP be.PST-3
    rašo-ma sutelk-us pastang-as.
    write-NAGR.PRS focus-NAGR.PST effort-ACC.PL
    'The handwriting is thick and large, it **is seen that** it has been written with much effort.'

In languages for which such converse SEE-based (probably also HEAR-based) constructions are attested with some frequency, functional interference with SEEM-

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12 This is often referred to as 'conceptualizer' (e.g., in Cornillie 2007b) or 'subjectifier'.

13 These converses can be subsumed under anticausatives. Romance, Slavic and Baltic languages, but to a large extent also German, show a broad array of verbs, and of constructions, in which an etymologically reflexive marker (mostly a 'light reflexive marker' in Kemmer's (1993) terms) serves to demote an agent or experiencer in the syntax or to remove it entirely from the argument structure. Among these languages many details differ, but a clear point of convergence is their anticausative prominence, which has been identified as a Europeanism (Nichols 1992; Haspelmath 1998: 276) and which is relevant for the relation between SEEM-based and SEE/HEAR-based constructions.

based constructions is expectable. However, not all languages with frequent and productive employment of 'light reflexive markers' may use them in such converse constructions to an equal extent, even if otherwise these languages show very similar ranges in the productive employment of the 'light reflexive'. For converse relations, in Romance languages this pattern is well-attested across the board, while in Russian and Polish HEAR- and particularly SEE-based constructions with a light reflexive marker are not very prominent. It is difficult to say whether Lithuanian is intermediate in this respect.[14] Superficially, this leaves the impression that Romance languages in Europe's (south)west cluster alike, in contrast to languages farther to Europe's northeast; but if this cluster can be maintained it will be difficult (if not impossible) to tell apart the genealogical factor from areal diffusion by contact (see Section 15.2). Anyway, for a more reliable and comprehensive picture, usage-based comparative studies – including also languages not investigated in this volume – are indispensable.

With this proviso in mind, a classification of construction types as the one proposed in Section 15.1.4.1 in principle applies to SEE- (and HEAR-)verbs, and to LOOK- and SOUND-verbs, as well. Moreover, in assessing any such classification, we should consider that languages differ a lot as for their liability to raising constructions (= type (i) below) or, more generally, their liability toward using non-finite verb forms (of lexical verbs) as arguments of perception and appearance verbs.

15.1.4.1 Correlations between construction types and functions

Which kinds of constructions based on SEEM-verbs exist and how do they correlate with evidential functions? For the languages of this volume, but also beyond them, the following construction types can be distinguished:[15]

(i)　Raising construction (monoclausal): SEEM + INF. We may further distinguish whether the infinitive is a lexical verb (e.g., *She seems to work hard*) or a copula with a predicative adjective (e.g., *They seem to be bored*). Here we can count also SEEM occurring only with a predicative adjective or noun

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14 For some discussion cf. Wiemer and Grzybowska (2015: 261–262). Compare, for instance, Lith. *rodytis* 'appear', a converse of transitive *rodyti* 'show', and the converses of the SEE-verbs *regėti* (> *regėti-s*) and *matyti* (> *matyti-s*), which are used as CTPs only rarely (in fact, *regėtis* exceptionally so). They rather occur as lexicalized particles (*matos(i)*, *regis(i)* (see Section 15.1.7.3.1); cf. Usonienė and Ruskan (this volume: Section 12.3.1).
15 The ordering and nomenclature of the construction types does not say anything about their diachronic relationship.

(e.g., *He seems tired/a good linguist*), whereby it gains a copula function. It is an open question to which extent SEEM + adjective with and without an additional BE-infinitive differ in function. Some languages, like Greek, have lost the infinitive as a form altogether, so that the construction with BE-infinitive is not an option, and lexical verbs are added to SEEM by an irrealis-connective (partaking in what has often been called 'analytical subjunctive'); compare Gr. *na* or Balkan Slavic *da*.[16] Another language in which SEEM is not available with an infinitive is Basque (Cid Abasolo and Carretero, this volume: Section 14.2.1).

(ii) Unraised construction (biclausal), possibly with an expletive subject and a complementizer followed by a finite complement clause: *it* SEEM*s* (= complement-taking predicate, CTP) + COMP + V_FIN (e.g., *It seems that everybody is working hard*). SEEM as a CTP sometimes allows for a choice between a standard (or default) complementizer ('that') and some "similative" complementizer (Engl. *as if*, *as though*, *like* and their equivalents). Often the complementizer status of such connectives remains debatable (see Section 15.2.6).

(iii) Particle (i.e. lexicalization via fossilization) based on the PRS.IND.3SG-form (identical to the CTP in (ii)), possibly with an incorporated (fused) expletive pronoun (Engl. *it seems*, Du. *'t schijnt*, Germ. *scheints*, Fr. *paraît-il*).

(iv) Different "blends", which may be further divided into

  – IND.PRS.3SG-FORM OF SEEM preceded by an adposition (+ pronominal clitic), e.g. Sp. *según parece*, Cat. *segons sembla*, Du. *naar het schijnt*;

  – IND.PRS.3SG-FORM OF SEEM preceded by an adposition (+ pronominal clitic) + COMP + V_FIN, e.g. Fr. *à ce qu('il) paraît* and Port. *ao que parece* (preposition + fused article + COMP + PRS.3SG);[17]

  – unraised construction (= ii) with inserted BE (e.g., Cat. *sembla ser que* lit. 'seems be that');

  – a preposition fused with a definite article + noun derived (by conversion) from SEEM, e.g., Sp. *al parecer* and Port. *ao parecer*.

Since all these constructions are formally headed by an adposition, they show traits of nominalization (to a greater or lesser extent). On this issue see Section 15.1.6.1.

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16 For Greek cf. Stathi (this volume: Section 13.3.3), for Balkan Slavic cf. Wiemer (2021b: 58–80).

17 Cf. Böhm et al. (2017).

It might be debated whether type (i) should not be better divided up, so that the constructions with bare predicative adjective or noun are considered a separate type. However, as far as I am able to judge from the data provided in this volume and elsewhere, this would hardly make a difference in terms of evidential values. In general, SEEM with bare predicative adjectives is strongly associated with immediate perception as a basis of judgment, and the question is to which extent it overlaps with construction type (ii) in the inferential domain. In turn, type (ii) appears to span the broadest array of possible triggers of judgment, and some of its representatives also extend into reportivity. Finally, constructions (or units) of types (iii-iv) are often, or exclusively, employed as parentheticals (see below).

In Wiemer (2010a: 105) I claimed that a shift to reportive function occurs only if dependency relations with a host sentence are loosened (or absent altogether), that is, in particle or parenthetical use. Admittedly, this formulation was too strong, but provided it is taken as a statement about a general tendency, it is confirmed from the data considered in this volume (see below). The more fundamental point behind this statement is that SEEM-constructions with a low degree of syntactic integration tend toward reportive marking and, correspondingly, move away from reference to direct evidence (and this would apply to evidential constructions based on perception verbs as well). This tendency is compatible with iconic correspondences between the degree of syntactic tightness and semantic integration (are we dealing with one or with two situations?), as they have been postulated (and largely shown to be empirically adequate) since Givón (1980) came up with a 'binding hierarchy'.[18] This compatibility becomes obvious when we realize that, in terms of modes of knowing (or types of evidence; cf. Wiemer and Marín-Arrese, this volume: Section 1.3.1), reportive evidence refers to a source outside the speaker, it is thus diametrically opposed to immediate sensory experience which always implies that the situation referred to is simultaneous to, or overlaps with, the moment of speech. Inferential functions occupy, as it were, an intermediate position: there is some personal relation between the speaker and the inferred situation, while there is no such relation with reportive evidence (cf. Plungian's (2001) classification of evidential values on its coarsest level). Now, in the fourfold classification of SEEM-constructions presented above the order from (i) to (iv) corresponds to a decrease of syntactic integration: type (i) shows the highest degree of integration within a single clause, whereas in type (ii) the situation referred to occurs as a

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18 For applications of Givón's assumptions cf., in particular, Cristofaro (2003: 122) and Van Valin (2005: 208–209).

clausal complement to a predicate which verbalizes the evidential core unit (namely, SEEM), that is, (ii) represents a biclausal construction with syntactic dependency (thus, asymmetry). Finally, types (iii) and (iv) are syntactically disintegrated, as the evidential units do not show dependency relations with the clause they comment on. This is shown in the following figure:
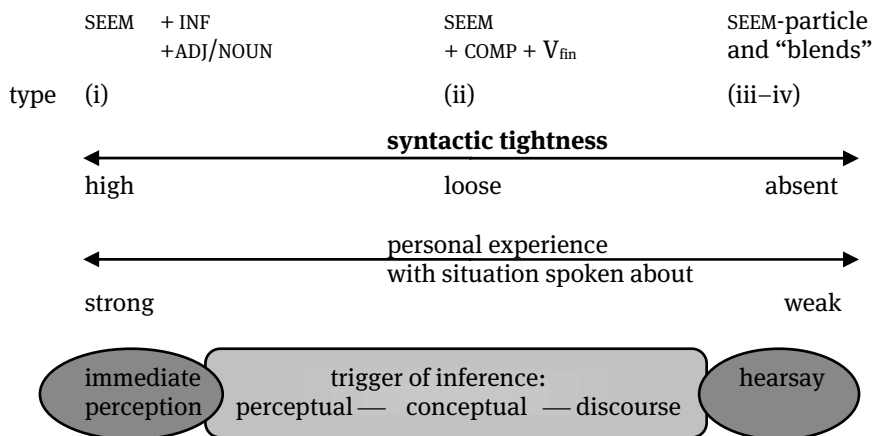
Figure 1: Iconic relation between clines of syntactic tightness and personal involvement.

If we now turn to the SEEM-constructions analyzed in this volume, a correlation between syntactic tightness and personal involvement – understood as the relation between the speaker and the situation spoken about – can, by and large, be observed. No conceivable correlation has been observed in Galician (except for the verb *ver* 'see') or in English, although in the latter "there does appear to be a certain preference for the reportative value in the use of the 'appear that-construction' [= type (ii)]" (Marín-Arrese 2017: 216). However, in Spanish the number of reportive values increases with type (ii) against type (i), and reportive meaning is clearly associated with types (iii) and (iv): "So it would appear that in Spanish, there is a division of labour in the case of constructions with *parecer*, where both *parece* + INF and *parece + que* are the preferred choice for inferential values, whereas *parece ser que* and the parenthetical *parece ser* are practically restricted to reportative values" (Marín-Arrese and Carretero, this volume: Section 6.2.2). This conclusion corroborates and supplements the observations in Cornillie (2007b: 119–120):

> The inferential reading of *parecer ser que* differs from that of *parece que* in that the inference is not provoked by visual or auditory evidence. (...) With *parece que*, both hearsay in-

formation and various types of inferred knowledge can be used, whereas inferences are restricted with *parece ser que*. In order to avoid inference from visual or auditory evidence the speaker can insert *ser* 'to be' in between *parecer* and *que*.[19]

Such observations hold true as well for Cat. *sembla/pareix ser que* (= type (iv): reportive preferred) vs. *sembla que, pareix que* (= type (ii): reportive or inferential). These data (with an "inserted" BE-infinitive) also support the iconic correspondences argued for above: the more complex construction (with *ser*) favors an evidential value which implies a dissociation between speech act and personal experience.[20] An analogous point can be made for Du. *het lijkt erop dat* lit. 'it looks thereupon that': the additional element *erop* (a pronominal adverb) blocks reference to immediate perception, which is otherwise available with *lijken*-constructions (Mortelmans, this volume: Section 3.3.3.1).

By contrast, if the speaker is explicitly referred to – with an obliquely marked experiencer[21] – a reportive reading is systematically excluded. This observation has been made in language over language, and it can be explained in terms of dissociation from the situation for which information source is indicated: if the speaker is mentioned, it is more plausible to assume that the speaker is also involved to some extent in that situation. By a similar token, it has been pointed out that the inclusion of an oblique experiencer highlights epistemic overtones in contexts which favor an inferential reading, as in (18), or that the SEEM-based construction simply marks personal opinion, as in (19).[22]

(18)   Catalan

[9]   *I después*   **me**   **sembla**   **que**
                   me.DAT   seem.PRS.3SG   COMP

       és lo dia del Divendres Sant fan la Processó de l'Anterro, no sé què però bueno

       'And then **it seems to me** that it is the day of the Holy Friday when they do the *Processó de l'Anterro*, I don't know what, but well.'

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19 For a comprehensive account of Spanish *parecer*-constructions cf. Cornillie (2007a: §2).

20 Possibly, the association of Sp. *parece ser que* with reportive meaning results from a conventionalized shift of hearsay-based inference into hearsay proper, or from an ellipsis of *parece ser un hecho que* 'it seems to be a fact that' (Cornillie 2007b: 118). However, these diachronic explanations would only support the contemporary functional distribution of these construction types and their relation with semantic (dis)integration argued for here.

21 In languages with sufficient morphological case marking the experiencer is in the dative (e.g., Polish, Greek, German), otherwise it is just an oblique form.

22 Cf. also Cornillie (2007a: 27–29, 2007b: 117–118) on Sp. *me/le parece que* 'to me/him it seems that', Mortelmans (this volume: Section 3.3.3.1) on Du. *lijkt me dat*.

(19)   Russian

[5]   *Mne*   ***kaž-et-sja,***   *čto*   *prjam-oe*
1SG.DAT   seem[IPFV]-PRS.3SG-REFL   COMP   direct-N.SG.NOM

sledovani-e   *mod-e*   *ėt-o*
following[N]-SG.NOM   fashion-SG.DAT   DEM-SG.NOM.N

durn-oj   *vkus.*
bad-M.SG.NOM   taste[M]-(SG.NOM)

'It **seems** to me that following a fashion directly is tasteless.'

[*Domovoj*, 2002]

In all languages analyzed in this volume, it is constructions of types (iii-iv) which are saliently associated with, or even restricted to, reportive meaning; they are unattested in the context of direct evidence. For instance, constructions with Germ. *scheinen* practically do not encroach into the reportive domain, but the particle *scheints* (= type (iii)) is an exception, whereas for Du. *schijnen* reportive use is better discernible.[23] In turn, constructions of type (ii) usually allow for both inferential and reportive use (and are thus discussed as indirect-indifferent markers), or they do not favor reportive meaning (as Germ. *es scheint, daß*, in contrast to Du. *het schijnt dat* 'it seems that'), while they are avoided if the information source is immediately accessible to speaker's perception. This more "fluctuant" behavior suggests that construction type (ii) is not only intermediary in terms of syntactic tightness, but also with respect to the association with the experiential basis of the situation spoken about (see Fig. 1).

To sum up, crosslinguistically there is a clear correlation between a decrease of syntactic integration and a move toward reportive marking. Of course, this feature is gradable (not the least in terms of token frequency), but there are clear indications in favor of such a general direction in the functional distribution among the four types of SEEM-constructions, and there are practically no counterexamples, even if we account for intricate distributions as in English and Dutch (see Section 15.1.4.2) and for cases with very vague use as markers of indirect evidentiality like Port. *ao que parece* lit. 'as for that seems' (Böhm et al. 2017: 97–99). In particular, in our sample there is no language which has both a SEEM-particle used for direct evidence or inferences and a monoclausal or biclausal SEEM-construction with a clear preference of reportive meaning.[24]

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23 Notably, we do not consider here inferences based on hearsay: it remains to be investigated whether it was such background of inferences that paved the way for reportive use proper.

24 For instance, as a particle, Russ. *kažetsja* can be used with direct evidence and for perception-based inferences and hearsay, but *kažetsja* in construction type (i) at best extends into perception-based inferences and in construction type (ii) it does not have a reportive prefer-

15.1.4.2 Sharework between SEEM-units in the same language?

Let us finally summarize observations on the distribution of SEEM-based constructions if there is more than one SEEM-verb (including here verbs of non-agentive perception). In French, constructions of type (ii) show a considerably stronger propensity toward reportive meaning with *paraître* than with *sembler*. This corresponds to a stronger affinity of *sembler* with cognition (more complex reasoning processes) than is the case with *paraître*, which has preserved more of its original meaning of impression and thus relates closer to appearance in a narrow sense. These lexical differences probably explain why the evidential use of *sembler* is more restricted than it is for *paraître* (Dendale, this volume: Section 5.2.3.2).

A comparable picture obtains for the Galician cognates, *parecer* and *semellar*. Although, by and large, both verbs are synonymous in those constructions in which each of them occurs, *semellar* is slightly more restricted than *parecer* as it does not allow for reportive readings, in contrast to *parecer*. Concomitantly, only *parecer* occurs in construction type (ii) with inserted *ser* 'be' and then marks reportive meaning (like its Spanish cognate); cf. González Vázquez and Domínguez Romero (this volume: Section 8.2.2). As for Cat. *parèixer* and *semblar*, no particular differences have been mentioned. The standard variety more commonly has *semblar*, while *parèixer* is well attested in more conservative dialects (in correspondence with Old Catalan); cf. Sentí (this volume: Section 7.2.1).

English presents us with a case in which constructions with units derived from two different SEEM-verbs show some division of labor that bears primarily on reportive extensions: if petrified *it seems* (in parenthetical use) it tends to assign an inferential value to the message, whereas the tendency for petrified *it appears* is rather toward reportive use. In turn, if used with a finite complement introduced by *that*, *it seems* clearly favors inferential uses, whereas *it appears* shows a preference for reportive values (Marín-Arrese 2017: 216, Marín-Arrese, Carretero and Usonienė, this volume: Section 2.2.2, and Wiemer and Marín-Arrese, this volume: Section 1.2.3).

Within our sample, Dutch offers the highest degree of differentiation with its three SEEM-verbs *lijken*, *schijnen* and *blijken*. Their distribution is far from complementary, but they show a preference each for a different construction type, and

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ence (Wiemer 2018a: 140–147, 185–186; Wiemer and Letuchiy, this volume). In turn, although Du. *schijnen* marks inferential and reportive meanings in the infinitival construction (= type (i)), its particle use strongly tends toward reportive meaning (Mortelmans, this volume: Section 3.3.3.3).

this correlates with functional preferences: *lijken* is most frequent as a copula (= type (i)) and it also most readily allows for an explicit experiencer, which brings it closer to an opinion marker (see ex. 15 above). However, it also is the closest functional equivalent of Germ. *scheinen*, whose cognate *schijnen*, in turn, shows a stronger tendency toward reportive meaning in different constructions, but "most consistently in the impersonal complement construction (*het schijnt dat* 'it seems that') and in the adverbial *naar het schijnt*-construction" (Mortelmans, this volume: Section 3.3.3.3). These are constructions close to the syntactically disintegrated end of Figure 1. *Blijken* is most frequent as a CTP with a clausal complement (= type (ii)) and allows for either inferential or reportive readings (cf. Mortelmans, this volume: Section 3.3.3, for details).

Let us now come to units located closer to the lexical end of the cline.

15.1.5 Propositional modifiers with word status: sentence adverbs and particles

The number of studies on both sentence adverbs and particles is enormous, but usually, whenever it comes to pinpointing the relation between evidential and epistemic meaning components, analyses and opinions among researchers diverge widely. This applies particularly to inferential functions, since here epistemic support and epistemic justification are the most difficult to disentangle, regardless whether these two domains are seen as partial, but necessary overlap (van der Auwera and Plungian 1998), as mutually related associations that may be variably fore- and backgrounded, or in some other way (cf. Wiemer 2018a: 56–71; 2018c: 87–90 for surveys). The problem aggravates with units that mark epistemic attitudes (i.e. different degrees of epistemic support) without a specific indication of the source justifying the attitude. These are, of course, general methodological problems (cf. Wiemer and Marín-Arrese, this volume: Section 1.3.2), which surface with other types of markers as well.

Concomitantly, I am unaware of crosslinguistically applicable criteria that would allow to draw sufficiently clear distinctions between sentence adverbs and particles, in particular as concerns the evidential domain.[25] This issue has basically been left aside in the present investigation (Wiemer and Marín-Arrese, this volume: Section 1.2.4). With this caveat in mind, I will first deal with units

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25 Cf. Wiemer (2010a: 91–92). Socka (forthcoming: §2.1) provides a thorough overview from a contrastive perspective of German and Polish (in both languages particles are a well-established issue).

that are in general treated as sentence adverbs (Section 15.1.5.1), before I comment on units treated as particles (Section 15.1.5.2). After all, a survey of the material assembled in this volume does not allow for many generalizations, apart from those "trivial" ones already known, like scope behavior or 'non-negationability' and other properties connected to discursive secondariness of these propositional modifiers (on which cf. Wiemer and Marín-Arrese, this volume: Section 1.1). For this reason, I will concentrate on a few selected and less well-known points.

15.1.5.1 Sentence adverbs

With sentence adverbs the problems mentioned in the introductory paragraph to this subsection are particularly nagging, since sentence adverbs are an entirely open word class (other than inflectional affixes or auxiliaries), and they are created productively. Particles differ in the latter respect as they are but rarely unified by word-formation processes, which makes their "functional histories" appear more individual than is the case for sentence adverbs. That is, sentence adverbs quite often come in "families" of analogical shape; compare, for instance, English epistemic adverbs like *probab-ly*, *possib-ly*, *presum-ably*, *undoubted-ly*, *certain-ly*, *definite-ly*, Russ. *opredelen-n-o* 'definitely', *nesomnen-n-o* 'undoubtedly', *bezuslov-n-o* 'certainly', *predpoloži-tel'n-o* 'presumably', It. *sicura-mente* 'certainly', *probabil-mente* 'probably'. Such suffixes mostly apply to adjective stems (including participles).

In turn, as concerns the latter, most languages of our small sample, but also languages beyond it, make use of productive suffixes that derive adjectives mainly from verb stems, among other bases. Some of these suffixes bear a modal flavor, as they are associated with dispositional or circumstantial possibility, in particular if added to verb stems. We observe the following pattern: V(erb stem) + suffix = 'capable of doing V/V likely to occur (given such and such circumstances)'. Compare Engl. *-able* (e.g., *do-able*, *compar-able*, *presum-able*), Du. *-baar*, *-lijk*, Germ. *-bar*, *-lich*, and Slavic *-(t)eln-* (with further variants).[26] Specific suffixes marking adverbs are then added to these formations; compare, for instance, Engl. *-ly*, Romance *-ment(e)*, Slavic *-'e* and *-o*, Lith. *-ai*.[27] German and Dutch do not have suffixes distinguishing adverbs from adjectives, however

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26 For the relevant suffixes deriving adjectives in Slavic languages cf. Ptak (2009).

27 On sentence adverbs derived from such adjectives cf. Hirschová (2013) for Czech and Ivanová (2015) for Slovak; Hirschová, however, does not distinguish reference to direct evidence from perception-based triggering of inferences.

adjectival suffixes with a modal function of the aforementioned type are widespread there as well.

15.1.5.1.1 The origin of reportive adverbs

The aforementioned suffixes are used productively, correspondingly the number of adverbs (if distinguishable from adjectival bases) is legion. On this backdrop it is striking that, among such adverbs, we find only few units with reportive meanings; this also holds true in languages beyond our small sample. The few attested reportive adverbs with the relevant suffixes are almost never derived directly from verb stems, the only clear exception being Germ. *angeblich* (< *angeb-en* 'tell, inform'). In other cases, reportive use is prominent, but it developed out of an earlier inferential meaning; compare, for instance, Du. *kennelijk*, *blijkbaar* and *schijnbaar* 'apparently' (Mortelmans, this volume: Section 3.3.1.2, Section 3.5). In all other known cases (most of them are considered in this volume) reportive adverbs which are etymologically related to a verb are derived not directly from the verb stem, but from some nominalized form, i.e. a participle (20) or an adjective (21):

(20)   Engl. *report-ed-ly*, *alleg-ed-ly*, Pol. *rzek-om-o* (< *rze-c* 'say[PFV]-INF', obsolete verb root and suffix), Lith. *taria-m-ai* (< *tar-ti* 'say-INF').

(21)   Srb./Cr. *navod-n-o* (= adverb from adjective stem of *navodi-ti* 'tell, inform[IPFV]-INF'), Cz. *údaj-n-ě* (= adverb < *uda-t*[PFV]/*udáva-t*[IPFV] 'tell, inform-INF').

Other such adverbs are derived from verbs (either directly or via some nominalized form) that denote cognitive processes or epistemic attitudes; compare, for instance, Engl. *supposedly*, Fr. *censément*, Port. *supostamente*. Reportive meanings are <u>not</u> acquired by adverbs (with the same suffixes) derived from perception verbs, unless the perception meaning of these adverbs is obliterated or entirely lost, such as Engl. *apparently*, Germ. *offenbar*, *offensichtlich* 'obviously', *anscheinend* 'apparently'. Consider also Pol. *podobno* 'allegedly, reportedly', which, as an adverb, is etymologically related to the adjective *podobny* 'similar', but the relation to appearance or similarity (comparison) and, in this sense, to perception was lost not later than in the 19th century (Wiemer and Socka, this volume: Section 11.6.1).

Moreover, we do not find SEE- or HEAR-verbs, let alone other sensory verbs, as bases of reportive adverbs; even their use as inferential adverbs is exceptional. As pointed out above, the aforementioned suffixes are used to derive adjectives with modal (circumstantial or dispositional) meanings. These meanings in

principle favor inferential extensions: some situation S that is capable of being seen, or heard, can become the basis of a judgment if S really occurs in some speaker's perception. However, this does not seem to actually happen to the relevant adverbs, at least not often. What happens is that adverbs referring to sensory perception behave like 'domain adverbs', i.e. they specify in which regard a statement is made.[28] Compare Lampert's (2014) study of relevant adverbs in English; the following examples (drawn from COHA) are adduced from his article:

English

(22) *Then came a long and awkward pause. Canoe sighed, **audibly**. "Come on, ladies," she said. "We've gotten off on the wrong foot."*
≅ 'sighed in a way that could be heard'

(23) *Tara shuddered **visibly** and flung herself into Jessica's arms.*
≅ 'shruddered in a way that could be (easily) seen'

(24) *... whatever was for breakfast, lunch or dinner was **olfactorily** announced as soon as you stepped into the bedroom.*
≅ 'the announcement became manifest, as it could be smelled'

As a matter of fact, domain adverbs in practice amount to markers of direct evidentiality, but a step into inferentiality can hardly be discerned. To my knowledge, this shift has been observed for SEE-based adverbs, but only rarely so for adverbs related to other senses.[29]

Therefore, the data from this volume (and some more work on European languages) creates the impression that, by and large, reportive adverbs either arise directly from verbs with suitable source meanings (implying a propositional argument), or they can be characterized as relative endpoints on certain roads of functional development: either, after they had been derived from verbs of general appearance (or their adjectival derivatives), their association with direct evidence made them capable of acquiring perception-based inferential uses; or they were related to inferential meanings from the start (e.g., because the base verbs denoted epistemic attitudes, as, for instance, with Sp. *Supuestamente*). In any case, such paths – if they are adequate – support assumptions according to which a shift from inferential to reportive use is likely to happen through the frequent employment of the relevant markers in contexts in which

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28 Cf. Ramat and Ricca (1998: 191–192). Originally, the term was coined by Bellert (1977).

29 See, for instance, the discussion in Dendale (this volume: Section 5.2.1.1) on French and some discussion in Ivanová (2015) concerning Slovak.

discourse/speech acts trigger inferences. In such cases the discursive background turns into a salient reportive meaning. Of course, this hypothesis should be tested in further research.

15.1.5.1.2 Adverbs with inferential functions

Another point concerns inferential adverbs. Although so far this has gone largely unnoticed, some inferential adverbs *prima facie* behave as though inferences were gradable. Consider, first, Germ. *offensichtlich*, *offenbar*, *augenscheinlich* 'obviously, apparently'. All these units can be combined with a scalar particle (Germ. *Gradpartikel*) like *ganz* 'quite, completely' or *allzu* 'all too'. Compare an example from the internet:

(25)   German

*Keine Tests, kein Homeoffice... die Wirtschaft kann **ganz offensichtlich** nicht wirtschaften.*

'No tests, no home office... the economy **quite obviously** cannot do business.'

[https://www.ruhrbarone.de/ueber-die-linie-322/198099, 18.04.2021]

As Mortelmans and Stathi (this volume: Section 4.3.1) state, this combinability testifies to the semantic transparency of such adverbs, which are etymologically connected to meanings like 'open to (visual) perception' or 'evident to the eyes'. However, what is it that remains gradient (and thus sensitive to the function of scalar particles)? Obviously, any scalarity ascribed to the stimulus of an inference itself would hardly make sense. Instead, it is the strength of epistemic support linked to the inference drawn (on some perceptual or conceptual basis) which gradience is assigned to. Alternatively, scalarity might relate to the strength with which the inference trigger is claimed to evoke the inference (judgment), i.e. the association between trigger and what is to be inferred. Either way yields the same result, namely that scalarity relates to strength of epistemic support.

That it is this association which is at stake can be illustrated also with examples like the following one from Dutch. The sentence adverb *duidelijk* 'clearly' does not particularly narrow down the basis of the inference, but this basis is given explicitly in the beginning of this example. As Mortelmans (this volume: Section 3.3.3.2) remarks, the function of *duidelijk* is to underscore the link between this information source and the inference, and *duidelijk* itself can be emphasized by prefixing with *over-*:

(26)   Dutch

[29a] *Uit   ons   jaarlijks-e   onderzoek   onder   1,500*
       out.of   our   yearly-SG.N   investigation under   1,500
       huishouden-s   **blijk-t**   *[over]duidelijk   dat*
       household-PL   turn.out-PRS.3SG   [very] clearly   COMP
       mensen weer meer waarde hechten aan gezond eten.
       'From our yearly survey of 1,500 households it [very] clearly **appears**
       that people again value healthy nutrition more.'   [CONDIV-NL]

A comparable association between information source (= trigger of inference) and judgment does not work in the case of hearsay. Strength of support for a judgment based on somebody else's words can only be linked to that person's authority and reliability, but hearsay itself cannot be graded. It is therefore not surprising that typical reportive adverbs (or particles) do not combine with scalar markers (compare Engl. *very allegedly, **particularly supposedly*). In German, combinations of *angeblich* 'allegedly' and *ganz* 'completely' do occasionally occur. Such utterances sound weird and can only be interpreted if *ganz* is meant to downtone the speaker's support for the trustworthiness of the reported content; see an example:

(27)   German
        *Bei cigabuy kann man das Kit gerade für ca. 65€ vorbestellen. Verschickt
        wird das **ganz angeblich** um den 25.02. rum. Wobei meine Erfahrung bei
        cigabuy ist eher, dass man nochmal ein bis zwei Wochen drauf rechnen
        sollte.*
        'At cigabuy you can pre-order the kit for around € 65. It is **(?quite) supposedly/allegedly** sent around February 25th. My experience at cigabuy
        is that you rather should count on it for another week or two.'
            [https://www.dampfer-board.de/user-post-list/12416-hefie/?pageNo=5,
            30.05.2021]

Another piece of evidence suggesting gradable properties of inferential markers is the parallel occurrence of sentence adverbs (or particles) like Pol. *wyraźnie* and *najwyraźniej* 'obviously, evidently'. On face value, the second form is the superlative of the first one. However, in terms of inferential function, these two units do not differ. Danielewiczowa (2012: 87) explains the superlative form as an emphatic amplification which is not derived from the manner adverb (as in *Mówi wyraźnie* 'S/he speaks clearly (i.e. with a distinct pronunciation)'), but already operates on the metacommunicative level. Again, such an emphasis relates to the strength of judgment (however formalized), or to the association between the inference trigger and the inference.

Remarkable in this connection is the fact that for such sentence adverbs no equivalent with the form of the comparative degree exists: Pol. *wyraźniej* can be only the comparative of *wyraźnie* 'clearly, distinctly' as a manner adverb. This can be explained from two angles. First, in assigning an epistemic or evidential modification to a judgment, one usually does not compare a given proposition with some other proposition. This renders a comparative of a metacommunicative statement superfluous, if not senseless. However, second, the use of the superlative form can be explained in analogy to the scalar particles which, as discussed above, in German can be used to "emphasize" inferential adverbs. Scalar particles usually highlight extreme regions on scales (upper or lower boundaries), and this is what superlatives do as well.

15.1.5.2 Particles
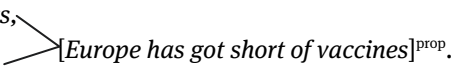
We can be brief as for observations that may be generalized for evidential particles in the languages studied in this volume.

In the literature on evidentiality, a frequent topic has been hearsay particles developed from verbs denoting speech acts in a neutral way ('say, tell'). However, in the languages analyzed in this volume this phenomenon proves to be of a rather limited range, apart from the prominent case of Ibero-Romance *dizque* (see Section 15.1.7.4). More usually, reportive meanings are acquired as an extension from inferential markers, that is by way of meaning specification affecting already established particles (or constructions) that are employed as indifferent markers of indirect evidentiality. This parallels comparable meaning extensions (or specifications) via inferentiality which were noted above for sentence adverbs (compare Engl. *apparently*, *supposedly* and their equivalents) or for SEEM-based particles and constructions (compare, e.g., Fr. *paraît-il*). Gal. *seica* (< *sei* 'I know' + COMP) looks like a special case, since it derives from a general verb of knowledge; its reportive extension seems to be recent and still quite labile (cf. González Vázquez and Domínguez Romero, this volume: Section 8.2.2).

Remarkably, there is practically no attestation of a functional development in the opposite direction, i.e. from reportivity into inferentiality. An only seeming exception is SAY-units in connection with conditional mood in French and in Spanish (see Marín-Arrese and Carretero, this volume: Section 6.2, and Dendale, this volume: Section 5.1.8). Since the movement from inferentiality to reportivity (but not vice versa) occurs with such a consistency regardless of the form classes involved, we may assume that some more general cognitive mechanisms are at work which are favored by particular discourse constellations. An attempt at explaining such a mechanism was undertaken in a case study by Wiemer (2008: 359–371).

15.1.6 ACCORDING TO-units

Phrases headed by ACCORDING TO-adpositions are frequently used as adverbials specifying information source, they thus constitute another type of propositional modifiers. Basically, they indicate that there is a piece of discourse (text, utterance) couching some propositional content. The noun in the ACCORDING TO-phrase does not verbalize this content directly, but names, as it were, its container (e.g., *yesterday's news*, *the Government's last announcement*, *Paul's letter*, *Darwin's theory*). In this compressed form, such a noun serves as a justification of the proposition verbalized by the actual speaker in the clause which the ACCORDING TO-phrase comments on. Moreover, often it is not that compressed piece of discourse (or its "container") which is referred to, but a person (or persons) who was the author of that piece of discourse (and the respective proposition(s)). In this case, reference to propositional content is additionally mediated by the "bearer" or "creator" as the ultimate source of that content. Thus, although "source" and propositional content are connected by metonymic shifts, the proposition to be justified is spelt out just as it is with reportive markers of any other format. Compare:

(28)   English (constructed)
   a.   *According to Paul/the news,*
                    [Europe has got short of vaccines][prop].
   b.   *Allegedly/Reportedly,*

The clause following on the adpositional phrase can also be a direct quote, as in this example:

(29)   Portuguese
[37]   **Segundo** *Valente de Oliveira, "começamos agora a empreender juntos uma viagem no tempo, para descobrir como eram eles antes desse encontro".*
        '**According to** Valente de Oliveira, "we started now to undertake together a time travel, to discover how they were before this encounter".'

Importantly, although ACCORDING TO-phrases can be used as convenient means of naming a specific speaker, they crucially differ from quotatives in that ACCORDING TO-phrases do not relate to speech behavior. They do not serve to mimic, or interpret, somebody's speech, gestures, some other kind of behavior, or somebody else's thoughts or emotions imputed by the actual speaker; instead, they are used simply to justify one's statement by reference to the content of what other people said (or wrote). Compare (30) against (31a–b):

(30)   English (constructed)
       According to Paul, *"hi, old guy, don't you know?"

(31)   a.   *Yesterday I met Paul, and he like* [*"hi, old guy, don't you know?"*]
            reference to manner of speech and/or illocution
       b.   *Paul frowned, like* [*"oh dear, I'm sick of that"*]. interpretation of emotion

Admittedly, some of the relevant markers can also be used to point out the trigger (also non-verbal ones) of an inference (see Section 15.1.6.3).

   This said, ACCORDING TO-phrases can be considered genuine reportive markers, especially when we compare them to reportive particles, sentence adverbs or parentheticals employed as comments on propositions with an adverbial status. What distinguishes ACCORDING TO-phrases from these types of reportive markers is, first, their internal structure and, second, the syntactic dissociation of the propositional content from its "creator" or from its "container". As concerns the structure, the adposition itself opens up a slot to be filled by a noun (or a clause that to some extent becomes nominalized). The noun, thus, functions as a variable which spells out the source, while the adposition itself only "hints" that there is some source to be looked at; as it were, it functions like a pointer (see 28a). In turn, the syntactic dissociation between source (author) and content makes ACCORDING TO-phrases compatible with other reportive markers. Consider an example from Catalan, in which *segons* + NP comments on a clause with the 'reportive conditional' (on which see Section 15.2.1):

(32)   Catalan
[83]   *El nombre de víctimes, segons les últimes informacions,*
       s'   **elevaria**   *a 67 morts.*
       MM   increase.COND.3SG
       'The number of victims, according to the last news, **would increase** to 67
       dead people.'

In a sense, *segons* + NP is a redundant marker of reportivity, inasmuch as the conditional form of the predicate is sufficient to indicate hearsay. However, the conditional only specifies the type of evidence (cf. Wiemer and Marín-Arrese, this volume: Section 1.3.1), whereas the noun in the ACCORDING TO-phrase additionally serves to narrow down the source itself on which the speaker of this sentence bases their judgment. This noun, in turn, cannot spell out the proposition, but only supplies its container (product of speech) or, alternatively, its creator (an individual or collective author). Since the majority of the relevant adpositions do not specialize *per se* in hearsay, it is the lexical content of the

governed noun which either indicates the source directly (the original speaker) or indirectly (e.g., via some product of speech).

Therefore, we should distinguish between the entire adpositional phrase (as a construction "inserted" into, or attached to, a clause), on the one hand, and its smaller parts, the adposition as the head and its variable lexical slot filler, on the other. From a lexicographic point of view, only the adposition (simple or complex) needs to be "listed" in an inventory, but the reportive function is a property of the entire, "lexically specified" phrase in each usage token, and this entire phrase, in turn, fills another, albeit optional, slot in the structure of an utterance.

The distinctions made here are summarized in the following table.

Table 1: Characteristics of ACCORDING TO-phrases

	Internal structure	Target of modification (Comment on)	Properties
ACCORDING TO-**adpositions**	pointer → source $_{PP}$[adposition + noun]	[clause]^{proposition}	(i) phrase, can be decomposed (ii) reference to product of speech or its "creator" (= source), separated from propositional content
sentence adverbs, particle	REP		holistic units, cannot (normally) be decomposed
(new) quotative marker	QUOT	[utterance]^{illocution}, manner of speech, nonverbal behavior, imputed speech or thoughts	

There are more properties that ACCORDING TO-phrases share with other reportive markers. First of all, they cannot be negated. Moreover, phrases headed by these adpositions cannot scope over inferential particles, or sentence adverbs (33a), in contrast to constructions with complement-taking predicates (33b); see the following examples (adapted from Dendale, this volume: Section 5.2.4.3):

(33)   French
   a.   *_Selon Max_, **_dirait-on,_** _il va pleuvoir_.
        'According to Max, **allegedly** it's gonna rain.'
   b.   _Selon Max_, **_on dirait qu'_**_il va pleuvoir_.
        'According to Max, **it looks like** it's gonna rain.'

This shows that the "origo" of the judgment cannot be transferred from the speaker to some other subject (denoted by the NP governed by *selon*). Thus, there is no problem in combining *selon* with the 'reportive conditional'; see (32) above and the following example (Dendale, this volume: Section 5.4.1):

(34) French
[99] **Selon   Abdoul Karim**, *le   chef   du village,*
      according to Abdoul Karim   the   chief of.the village
      les   bombes américaines   auraient fait   200 morts.
      the   American bomb.PL   cause.COND.PRF.3PL   200 death.PL
      '**According to Abdoul Karim**, the village chief, the American bombs
      apparently have killed 200 people.'

Cases like (33b) and (34) may be counted as 'reportive concord' (cf. also Mortelmans, this volume, on Dutch), as we know it from the use of auxiliaries and sentence adverbs (like Germ. *sollen* "in concert" with adverbs like *angeblich* 'reportedly', or their Polish equivalents *mieć* and *podobno*, as well); cf. Wiemer (2018a: 118–124) and Socka (forthcoming: §4.2) for surveys.

In sum, ACCORDING TO-phrases enter the domain of reportive evidentiality via different avenues. On the one hand, they are capable of specifying an individual or collective speaker as the ultimate source of some propositional content, or they refer to the container of that content. On the other hand, for many ACCORDING TO-adpositions the relation to hearsay arises "parasitically" from broader meanings like 'in conformity with'. Probably, reportive functions (via reference to authors or products of speech acts) result from this latter meaning by semantic narrowing (i.e. specialization from a more general meaning). The other road into reportive evidentiality is based on a metonymic relation between some person (= original speaker referred to) and that person's product of speech.[30] Moreover, instead of a person there may be a group of persons, or an institution, which, again, is metonymically associated to a person's speech acts (or rather: their "products"); compare

(35) English
      According to Grace/Grace's message/the Parliament/the Parliament's declaration, P.

Arguably, the relation between a single person and a group of persons is based on synecdoche (*pars pro toto*, and vice versa). However, calling a group of per-

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30 This metonymic relation can be regarded as a special case of the widespread person-artefact (or person-product) type of metonymy.

sons by some social function, or role, it fulfils (e.g., commission, editorial board, government) is, again, rather an instantiation of metonymy.

As we will see below from a comparison of our data (Section 15.1.6.3), it is not very plausible to assume a direct connection from 'conformity' to 'person (original speaker/writer)'. Preliminary observations rather indicate that 'conformity' becomes associated to the reportive domain via speech products. Moreover, the metonymic relation between speaker (person) and speech product seems to work rather in the direction [speech product > speaker] (not the other way around), and the direction of meaning extensions in the relation between speaker and institution likewise requires clarification on the basis of systematic empirical work.

Figure 2 presents a proposal on the "network" of relations relevant for AC-CORDING TO-adpositions. This proposal is tentative, and it looks like a semantic map. However, the relation between 'institution', 'person' and 'speech product' resembles a closed circle (or triangle), and if this can be maintained after further research this would be rather atypical for semantic maps. Actually, it is not clear whether reference to 'person' metonymically gives rise to conventionalized reference to 'speech product' directly, and not via 'institution' (see Section 15.1.6.3). For the time being, the only statement about directionality that can be given reasonably firmly is that 'conformity' enters the speech act-related domain via speech products. However, even this preliminary conclusion should be taken with caution.
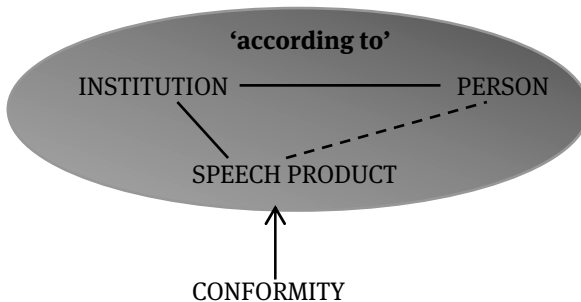
Figure 2: Conceptual relations connecting functions of ACCORDING TO-units.

Let us now come to observations based on the material assembled in the language-specific chapters of this volume.

15.1.6.1 ACCORDING TO with clausal complements

ACCORDING TO-phrases differ as for the extent to which they allow for clausal complements. In the languages investigated here, most ACCORDING TO-units are prepositions, exceptions are two postpositions: Germ. *zufolge* (Germ. *gemäß* allows for either pre- or postpositional use) and Ba. *arabera* (see Section 15.1.6.2). Irrespective of this, many languages allow for clausal complements of ACCORDING TO-units only provided there is a correlative (demonstrative) pronoun. A case in point is German; compare in particular (37b) and (37c):

(36) German
    a. *ihr zufolge* 'according to her'; *ihrer Aussage zufolge* 'according to her testimony'
    b. **was sie gesagt hat zufolge* 'according to what she said'

(37) German
    a. *ihr gemäß* 'according to her'; *gemäß ihrer Aussage* 'according to her testimony'
    b. **gemäß was sie gesagt hat* 'according to what she said'
    c. *gemäß **dem**, was sie gesagt hat* lit. 'according to **that** what she said'.

The correlative pronoun functions as the attachment site of the subsequent clause. It thereby serves as a very "soft" means of nominalizing that clause which, in turn, resembles a relative clause. Other languages of this type are French, Polish, and Greek (E. Stathi, p.c.), but also Russ. *soglasno* (not analyzed in this volume) belongs here.

By contrast, English, Dutch, the Ibero-Romance languages and Basque allow for clausal complements without a correlative pronoun. The Basque case is special (see Section 15.1.6.2), for the other languages mentioned see these examples:

(38) Engl. *according to what she said*

(39) Du. *volgens wat je vertelt* 'according to what you tell'

(40) Sp. *según dicen*.PRS.3PL 'according to what they say'
        según nos cuenta.PRS.3SG 'according to what s/he tells us'

(41) Gal. *segundo escoitamos*.PRS.1PL 'as we heard'

(42) Port. *conforme diz*.PRS.3SG/*anunciou*.PST.3SG 'according to (what s/he) says/said'

In English and Dutch, the attached clause looks like a free (or headless) relative.[31] The Ibero-Romance languages go even further, inasmuch as there need not even be a WH-pronoun in the complement (compare Engl. *according to she said*), instead the clause attaches to the ACCORDING TO-unit directly.

This property, attested in Ibero-Romance languages, is no prerogative of reportive marking, but can also be observed with other kinds of source reference (see Section 15.1.6.3). Compare, for instance, Sp. *según parece*.PRS.3SG 'as it seems', Cat. *segons es*.REFL *veu*.PRS.3SG 'according to (what) one sees' (see Section 15.1.4.1 on SEEM-constructions). Nor is the use of clausal complements with WH-pronouns, with and without preceding correlative demonstratives, excluded; compare, for instance, Sp. *por lo que se ve,* lit. 'from/by **it** which is seen' and Gal. *polo que oio*.PRS.1SG 'from what I hear'.[32]

15.1.6.2 A specific construction in Basque

Ba. *arabera* presents us with a peculiar construction type. In some sense, this construction resembles the aforementioned headless construction of Ibero-Romance languages. *Arabera* may take an NP marked as genitive (*Ane-ren*.GEN *arabera* 'according to Ane'), but it can also take a clause marked with a definite article being, in turn, in the scope of a genitive marker. In this way, the clause is nominalized to an extent that it can be treated as a nominal dependent of *arabera*. However, before the clause can be partially nominalized, the relative marker (-*en-*) needs to be attached directly to the inflected verb. Compare an example from Cid Abasolo and Carretero (this volume: Section 14.3.1; brackets added):

(43)   Basque
[56]   *[[Ane-k   dio-en-a-ren]   arabera],   gizon   bat-Ø*
       Ane-ERG   say.PRS.3SG-REL-ART-GEN   according to   man   one-ABS
       hil   da   errepide-a-n.
       die (PFV)   AUX.PRS.3SG   road-ART-IN
       'According to what Ane says, a man has died on the road.'

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31 In Engl. *according to* the element *to* has become an inextricable part of the complex preposition; it cannot therefore be counted as correlative "linker" and attachment site of the clause. Instead, the dependent NP is attached to *according to* directly (as a holistic unit), and so is a clausal complement.

32 In examples like these the WH-pronoun even becomes similar to a complementizer.

(43) shows how the partially nominalized clause is made a dependent of *arabera*. In addition, an ergative NP may be inserted to specify the original speaker (*Ane-k*.ERG). This entire phrase is juxtaposed to another clause to which it supplies a reportive comment. The constituent headed by *arabera* is thus a headless relative, and, except for the nominalization strategy and an optional agent in the ergative, this structure is very similar to what we observe in Ibero-Romance languages.

However, the relative clause may also be juxtaposed to another clause (as its comment) without *arabera*. In this case, the headless relative clause (again with an optional ergative NP) takes an instrumental case marker (which does not require a definiteness marker):[33]

(44) Basque

[55] *[Ane-k*   *dio-en-ez],*   *gizon* *bat-Ø*   *hil*
Ane-ERG   say.PRS.3SG-REL-INS man one-ABS   die (PFV)
da   *errepide-a-n.*
AUX.PRS.3SG road-ART-IN
'According to [what] Ane says, a man has died on the road.'
(more literally 'by what Ane says, …')

When no author of the reported speech act is indicated by an ergative NP, the verb in the relative clause takes the 3PL-form ('they/people say'), regardless of whether it is dependent on *arabera* (with article and genitive case) or attaches to the clause commented on directly (with instrumental case).[34]

15.1.6.3 Different etymologies and function ranges

In terms of their provenance, the ACCORDING TO-units divide into subgroups. The division in the table below is not exhaustive but covers more or less the cases treated in this volume.

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33 I am obliged to Natalia Zaika for explaining these points to me (with the usual disclaimers applying).
34 See ex. (60–61) in Cid Abasolo and Carretero (this volume: Section 14.3.1).

Table 2: Etymology of ACCORDING TO-adpositions.

PPs with nominal expressions meaning 'accordance, agreement'	Sp. *de acuerdo con*, Pol. *zgodnie z* (adverb of *zgodn-y* 'harmonic, agreeing' + *z* 'with'), Gr. *símfona me* (adverb of *símfon-os* 'consistent' + *me* 'with')
PPs with nouns having other meanings	Germ. *zufolge* (contamination of *zu+folge* ≈ 'in sequence')*
lexicalized participles (with or without additional elements) or other nonfinite verb forms	Engl. *according to*, Du. *volgens* ('following)', Gal./Port. *segundo*, Sp. *según*, Cat. *segons* (< Lat. *secundum*) Germ. *gemäß* (< OHG *gemāƷe* 'appropriate')**
truncated form of speech verb	Lith. *pasak* (< *pasakyti* 'say, tell')
lexicalized oblique case forms of nouns with the meaning 'opinion'	Lith. *nuomone* 'opinion.INS', *manymu* 'opinion.INS', Pol. *zdaniem* 'opinion.INS'
compounds	Ba. *arabera* (< *arau* 'rule' + *era* 'manner')
other	Germ. *laut* (< adjective 'loud' < 'famous' ?)

* By analogy with other formations like *zuliebe* ('for the sake of') and *zugunsten* ('in favor of'); cf. Dictionary of German by the Grimm Brothers, digital version: http://dwb.uni-trier.de/de/ (sub verbum).

** This goes back further to Germanic *(ge)mǣte* = past participle of the verb meaning 'measure' (Kluge 1957, *sub verbum*).

As pointed out by Marín-Arrese and Carretero (this volume) for Spanish and by Dendale (this volume) for French, ACCORDING TO-prepositions can be used to cover the following three meanings: (i) 'in conformity with', (ii) 'as stated or attested by', and (iii) 'depending on'. Apart from (ii), related to reportive evidentiality, meaning (i) is quite widespread among the units of our sample, while (iii) applies only to few of them (like, e.g., Fr. *selon*). Here this meaning will not be considered further. More crucial is the question which of the two meanings (i) and (ii) is preferred by which ACCORDING TO-adposition. Although this matter has not been sufficiently investigated (neither in this volume, nor anywhere else, as far as I am aware), some comments can be made.

First and foremost, with some of the relevant adpositions only nouns denoting products of speech, but not their authors, can be taken as complements; conversely, there is a minority of adpositions that only specify people as authors of speech acts. This observation requires some comments.

First, the only clear case in which an ACCORDING TO-adposition etymologically derives from a speech act verb is Lith. *pasak*. This adposition almost exclusively governs nouns naming the person who made a statement, or an institu-

tion or some other group of people (endowed with a particular social function), as in the following examples:

(45)   Lithuanian
[71]   *Todėl, **pasak** Bistro, "šiandien reikia rodyti maksimumą kūrybinės, drąsios iniciatyvos".*
       'Therefore **according to** Bistras "today maximum of creative, brave initiative should be demonstrated".'

(46)   Lithuanian
       ***Pasak** palestiniečių savivaldos, ji visomis išgalėmis stengiasi sustabdyti bet kokius išpuolius prieš civilius izraeliečius.*
       '**According to** the Palestinian self-government, it is making every effort to stop any attacks on civilian Israelis.'   [Lietuvos Rytas. 2001]

Only very rarely does the governed noun denote a product of speech (e.g., *pasak budistinių tekstų* 'according to Buddists' texts').[35] The same remarks apply to *anot*, whose etymology is unclear (Usonienė and Ruskan, this volume: Section 12.4.1). The restriction to persons or institutions as authors of statements is even stronger with adpositions which arose as lexicalized oblique case forms of nouns denoting somebody's opinion: Pol. *zdaniem*, Lith. *nuomone*, *manymu* (all are in the instrumental case). The relation to reportive evidentiality becomes clear when we realize that opinions have to be expressed verbally, by utterances with propositional content. However, such adpositions strictly avoid nouns denoting speech products.

Another characteristic of all units mentioned in the preceding paragraph is that (to the best of my knowledge) they do not take clausal complements. This is plausible since clausal complements are semantically closest to nouns denoting products of speech, which, as said, are avoided by these units. The properties pointed out for this subgroup of ACCORDING TO-units might be indicative of a stronger correlation between their etymological origin and their function as evidentiality markers. Germ. *laut* is not restricted to person-reference and is used much more freely with speech products (Mortelmans and Stathi, this volume: Section 4.4.3). This may be due to its different (and not quite clear) etymology and age.[36]

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35 From a belletristic text (published in 1997). See http://tekstynas.vdu.lt/tekstynas/.
36 According to Kluge (1957: 427), the preposition *laut* is not directly connected to the adjective ('loud'), but seems to be traced back to a meaning like 'famous, known', in accordance with the IE. root *$\widehat{kleu}$-, which was related to auditory perception and possibly the common origin of both the adjective *laut* 'loud' and the preposition.

Second, the majority of ACCORDING TO-adpositions are derived from verbs, nouns or adjectives that are not directly related to speech, but have a broader 'conformity' meaning. However, these adpositions cover meanings (i) 'in conformity with' and (ii) 'as attested/said by' to different extents. Practically all of them take nouns that denote speech products, but some ACCORDING TO-units are reluctant against direct reference to single persons (as authors of speech products), and if groups or institutions are referred to these typically denote a community united by some scientific, religious or other kind of convictions (and this denotation can, in turn, imply an assembly, or edifice, of statements expressing these convictions, thus speech products). This is what we observe, for instance, with Pol. *zgodnie z*: examples like (47), with speech products, and examples like (48), in which reference is made to a scientific discipline, can be found rather easily, but is it hard to find examples with reference to a concrete person:

(47) Polish
*To kobiety, **zgodnie z** <u>tym proroctwem</u>, będą nadawać ton wydarzeniom w nowym milenium.*
'It is women, **in line with** <u>this prophecy</u>, who will set the tone for the events of the new millenium.'
[PNC; J. Makowski: "Kobiety uczą kościół". 2007]

(48) Polish
*Krytyczny był typ ich rozrodu. Lecz jeśli Kwintanie nie należeli ani do łożyskowych ssaków, ani do torbaczy, ich dwupłciowości dowodziła <u>genetyka</u>: **zgodnie z nią** ewolucja biologiczna daje prym rozmnażania się w tej postaci.*
'The type of their reproduction was critical. But if the Quintans were neither placental mammals nor marsupials, their bisexuality was demonstrated by <u>genetics</u>: **according to it**, biological evolution gives primacy to reproduction in this form.'   [PNC; St. Lem: "Fiasko". 1987]

A very similar point can be made for Russ. *soglasno* (not investigated in this volume). For units of this subgroup, the metonymic shift [product of speech > author/speaker] remains implicit; it may be considered conventional, but it cannot be expressed.[37]

Third, after all, most ACCORDING TO-adpositions are much more "flexible" in that they can also take nouns denoting institutions or individual persons. For them, the metonymic shift [speech product > author (individual or collective)] is

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37 Thus, Pol. *zgodnie z* practically is in complementary distribution with *zdaniem*, which can only refer to the original speaker and, thus, makes salient meaning (ii) (see above).

much more freely available and can be regarded as sufficiently conventional-
ized in the collocational possibilities of these adpositions. Compare, for in-
stance, Engl. *according to*, Sp. *según*, Port. *de acordo com*, Fr. *selon*, Du. *volgens*,
Germ. *zufolge*, *gemäß*, and *laut*. Anyway, the functional development of this
group of ACCORDING TO-units has evidently proceeded in the direction [conformity
> speech products > authorities/authors of speech products], which is diametri-
cally opposed to the (more restricted) development of the first group of markers
discussed above as etymologically related to speech acts or opinions (Lith.
pasak, Pol. *zdaniem*).

Fourth, there is another subgroup of ACCORDING TO-adpositions which cover
both 'conformity' and the domain of speech. They are well compatible with
nouns denoting products of speech or groups of people (institutions), but they
are reluctant to take nouns denoting persons (as original speakers/writers). Pol.
według is a case in point, probably Germ. *gemäß* is another one. A reason for the
mentioned kind of restriction may lie, again, in their provenance. Thus, *według*
is originally related to measuring and the indication of domains of comparison
(compare with 'domain adverbs' in Section 15.1.5.1.1),[38] from where presumably
według entered reportivity as it became more frequent with nouns that allow to
justify a judgment by reference to written documents (or official statements).
This would explain why *według*, apart from nouns denoting products of speech
and associated social acts (e.g., *według decyzji X-a* 'in accordance with X's deci-
sion'), also readily occurs with nouns denoting institutions (and the people
behind them, e.g. *według sądu* 'according to the court'), but much less so with
nouns denoting persons (?*wedlug sędziego* 'according to the judge'); cf. Wiemer
and Socka (this volume: Section 11.3.3).

So far, a cursory comparison of the data analysed in this volume lends sup-
ports to the assumption that the most frequent road of adpositions into
reportive evidentiality rests on an encroachment deriving from a 'conformity'
meaning. More specifically, the reportive domain is entered via products of
speech, not their authors. Of course, this again is a hypothesis which should be
tested systematically against a larger and more diversified body of data.

Fifth, another observation corroborates the interim conclusion just formu-
lated. The majority of phrases with ACCORDING TO-adpositions can be used to
mark perception- or report-based inferences. An exception to this is those few
units that originate etymologically in speech act verbs (Lith. *pasak*) or nouns

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38 Compare uses like *willa zbudowana według klasycznych wzorców* 'a villa built according to
classical patterns' and cognates like the more archaic *wedle* i *podług* (*wedle/podług tutejszych
praw* 'according to local laws').

denoting 'opinion' (see above). To mark inferences, the ACCORDING TO-adposition takes a noun which specifies the trigger of the inference. A perception-based inference is illustrated in (49), discourse-based inference in (50):

(49) Dutch

[41b] *Ik had het meisje nooit gezien*
*maar **volgens het schilderij** moet zij een mooie verschijning zijn.*
'I had never seen the girl but **according to the painting** she must be a beautiful appearance.'

(50) English

[57] *(...) we'll find the girls' car because **according to** <u>what one can make out of her</u>*
<u>[the kidnapped girl's] *statement*</u>*, they were removed from it somewhere on the road between here and Taverna yesterday morning...*

It seems reasonable to assume that this use is not an extension from the reportive domain, but a reflex of the (probably earlier) 'conformity' meaning of these units.

Sixth, a feature observed in different languages of this volume concerns the use of a pronoun referring to the speaker ('to me', dative in languages with sufficient morphology). If such a pronoun is added to ACCORDING TO-units, the meaning switches from a reportive function to marking the speaker's personal opinion: the "source" is evident (= the speaker), so that epistemic stance takes over the floor. Some scholars qualify this as 'subjectifier' meaning (see the contributions on Dutch and German). It is intriguing that the addition of a 1SG-pronoun has been admitted to change the meaning of other expressions, e.g. with SEEM-verbs, basically along the same lines (see Section 15.1.4.1).

15.1.7 Types of heterosemy

Heterosemy comprises phenomena "where two or more meanings or functions that are historically related, in the sense of deriving from the same ultimate source, are borne by reflexes of the common source element that belong in different morphosyntactic categories" (Lichtenberk 1991: 476). This reasoning relates to differences between a function word and the referentially autonomous word as its lexical source (provided such a source exists), but it can also apply to variation in the syntactic behavior of function words themselves. This additional type of "syntactic flexibility", which will be accounted for below, makes the notion of heterosemy slightly differ from what Ježek and Ramat (2009) call

'transcategorization'. They define it as "a diachronic process consisting in a categorial shift of a lexical item without any superficial marking" (Ježek and Ramat 2009: 395), but they do not seem to take into consideration cases of variability between different classes of function words.[39] They do however treat as transcategorization all cases in which "a simple form of a verbal paradigm acquires an adverbial meaning" (Ježek and Ramat 2009: 400). Such cases[40] were mentioned above in connection with MUST-auxiliaries (Section 15.1.2); see further Section 15.1.7.3.

The following remark by Ježek and Ramat (2009: 391) is important: "transcategorization, understood as a diachronic shift from a *source* to a *target* category, is more characteristic of languages with clear-cut parts-of-speech distinctions, such as fusional languages"; otherwise the flexibility in syntactic treatment would be better explained in terms of precategorial lexemes. Consequently, since to some extent differences in syntactic distribution depend on the consistency with which this distribution correlates with morphological properties of words, heterosemy can itself become an areal feature (see Section 15.2).

Heterosemy does not comprise cases of conversion between major parts of speech, e.g. from verb to noun, which is a regular process in languages like German or French. Verb-to-noun conversion also seems to underlie the rise of some holistic expressions relevant for evidentiality marking, such as Sp. *al parecer* 'apparently' (see Section 15.1.4.1). Such cases will not be treated as heterosemy here.

Another, peculiar case is the Basque reportive particles *omen* and *ei*, which are also used as nouns with the meaning 'fame, reputation'. The diachronic relation between both is not clear (Cid Abasolo and Carretero, this volume: Section 14.3.2), nor is it clear whether this is a case of conversion. The case is clearer for Lith. *žinia*, which is a noun 'news, message', but this unit also functions as a reportive particle (Usonienė and Ruskan, this volume: Section 12.4). There

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39 All their examples "involve a shift from a content (or lexical) word to a function (or grammatical) word" (Ježek and Ramat 2009: 401), not shifts between function words.

40 Among their examples Ježek and Ramat (2009) adduce Lith. *gal* 'perhaps' (also Ramat and Ricca 1994: 298). However, according to their own definition, this does not illustrate transcategorization, since *gal* is not only isolated from the paradigm, but also truncated: the distribution of *gal-i* 'can-PRS.3' and *gal* (the latter derived from the former) does not seem to overlap. A similar case is the causal particle *mat* (derived from *mat-y-ti*.INF 'see'), although *matyt* 'apparently, obviously' can be treated as "transcategorized", since the infinitive of the verb itself often is truncated (*maty-t*.INF); cf. Wiemer (2007a: 187), Usonienė and Ruskan (this volume: Section 12.2).

is no reason to doubt that the particle derives from the noun. This makes it the only case of noun-particle heterosemy in our sample.

Moreover, often finite verb forms (predominantly in the indicative present) are conventionally employed as parentheticals, and some of them, via frequent use, acquire the status of (holistically stored) particles, such as Engl. *I think*, SEEM-units (e.g., Pol. *wydaje się*, Russ. *kažetsja*, It. *a quanto pare*) as well as Fr. *dit-on* (Dendale, this volume: Section 5.3.5.1) and other units that occur in INQUIT-formulae.[41] Such cases may be difficult to distinguish from heterosemy; they will not be considered as such, unless their lexicalization as an evidential particle is obvious. In general, however, parentheticals are commonplace and show a rather uniform behavior (in relation to their host; cf. Wiemer and Marín-Arrese, this volume: Section 1.1), whereas units underlying heterosemy often demonstrate idiosyncratic syntactic behavior. This testifies to their more individual "histories", despite certain common tendencies (see especially on Polish and Russian in the relevant chapters).

15.1.7.1 Adjective – adverb

The only good case in point seems to be Fr. *soi-disant*, which "can function as an (invariable) adjective (meaning 'so-called, supposed') or as an adverb (meaning 'supposedly'), depending on the word it qualifies" (Dendale, this volume: Section 5.3.3.1). Since French consistently distinguishes adverbs from their cognate adjectives by a suffix (-*ment*), the syntactic difference between adverb and adjective becomes obvious by presence vs. lack of this morphological sign. This contrast does not arise for German and Dutch because they distinguish adjectives from adverbs only when they are used as NP-modifiers. This is why, for instance, Du. *zogezegd* and *zogenaamd* 'supposedly' (Mortelmans, this volume: Section 3.4.1), which lack an adverb suffix, should not count as cases of heterosemy.

15.1.7.2 ACCORDING TO-adpositions

As mentioned in Section 15.1.6.1, phrases headed by simple or complex ACCORDING TO-prepositions can in some languages be "filled" with clausal complements

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41 Cf. Mortelmans (this volume: Section 3.1), following Verhagen (2019): INQUIT-units "cannot be associated with a specific lexical expression", instead, they are "denoted by a basically syntactically defined construction (identifiable on the basis of the initial position of the reported clause, which is followed by the reporting clause)".

without any correlative pronouns. In Ibero-Romance languages the clausal complements do not even require a WH-pronoun; see Sp. *según dicen*.PRS.3PL 'according to what they say'. This raises the issue whether, in such cases, the adposition does not change its syntactic status by becoming an adverbial subordinator (conjunction). If this applies, this shift (or variability) leads to preposition-conjunction heterosemy.

15.1.7.3 Verb > particle

Many particles with evidential functions originate from paradigmatically isolated verb forms, but heterosemy arises only if verb forms do not change their shape after they petrify as indeclinable units, either by mere truncation or by additional material.

15.1.7.3.1 Inferential or indirect-indifferent markers

In the languages of this volume, the most commonplace particles originating in inflected verbs are those derived from SEEM-verbs. These were mentioned already in Section 15.1.4.1. However, such particles often occur together with additional material like comparison markers (e.g., Engl. *as it seems*, Gr. *ópos fénete* and equivalents), which precludes heterosemy. Clear cases of particles derived from PRS.3SG-forms of SEEM-verbs conventionalized without additional material are Russ. *kažetsja*, Pol. *zdaje się*, Lith. *atrodo* and *rodos*, and Gr. *fénete* (without *ópos*). All these particles are used as inferential markers, some have expanded into the reportive domain. This expansion appears to be occurring also with emergent units like It. *pare* (lit. 'seems'), as noticed in Giacalone Ramat and Topadze (2007: 28).

Another form of the verbal paradigm encountered as the etymological source of inferential particles is the infinitive. A few instances of heterosemy based on this provenance can be found in languages of Europe's northeastern part, but even there such cases are much more restricted than with the PRS.3SG-form. Compare, for instance, Lith. *matyt(i)* 'see', maybe also *girdėt(i)* 'hear'. As particles, these forms usually coincide with a shortened form of the infinitive (i.e., without the final vowel); cf. Usonienė and Ruskan (this volume: Section 12.3.1). In Polish and Russian (among some other Slavic languages) similar cases of heterosemy may have existed in older stages, for units that derive from (and are "homonymic" with) infinitives of some basic verbs of perception, but which have almost or entirely ceased to function as infinitives (since their inflectional paradigms are lost); compare Russ. *vidat'* 'obviously' (< SEE), Pol.

słychać (< HEAR), *widać* (< SEE) (see Section 15.1.7.5 and the relevant chapters in this volume).

15.1.7.3.2 Hearsay particles

Among the languages of this volume, the number of hearsay particles that originate in verbs denoting neutral speech acts ('say, tell') proves to be rather limited (see Section 15.1.5.2). Even smaller is the number of reportive particles showing heterosemy with an inflected form (usually 3SG of the present indicative) of the verb from which they derive. Most particles known from European languages have a truncated or contracted shape, e.g., Cz. *prý* (< *praví*.PRS.3SG), Slk. *vraj* (< *vravia*.PRS.3SG), also units with slightly different functions like Russ. *mol* (< *molvi(l)* = AOR.3SG or PST.3SG.M of obsolescent *molviti* 'say').

We are only left with Gr. *léi*, apart from some debatable cases like It. *dice*, Cr./Srb. *kaže*.[42] Units like It. *dice* and Russ. *grit/gyt* (< *govori-t* 'say[IPFV]-PRS.3SG') can be used with third-person subjects in the singular and the plural, but It. *dice* cannot be used with first and second-person subjects. Such restrictions might hold for equivalent units in other languages, too, but this should be checked. Moreover, such isolated units often display an indiscriminate, or fluctuant, reportive-quotative function (cf. Giacalone Ramat and Topadze 2007: 27–28, Pietrandrea 2007: 55–57, Wiemer and Letuchiy, this volume: Section 10.6.4). However, overlaps with neighboring domains like quotation or mirativity have also been noted for other reportive particles, including Gr. *léi* (Stathi, this volume: Section 13.4.1). The usual question to put here is whether expansion occurred from reportive function into quotativity (and mirativity) or the other way around.[43]

Another hearsay particle that is "homonymous" with the verb form from which it derives is Lith. *girdì* (= PRS.2SG of *girdė-ti* 'hear-INF'), which, however, is based on a verb of auditory perception. The case slightly differs for Fr. *paraît-il*, not only because this unit derives from a SEEM-verb, but first of all because it incorporates a postposed expletive pronoun. In this guise, *paraît-il* can occur in an INQUIT-formula (see fn. 42), whereas as a usual verb form (which can take a clausal complement, *il paraît que P*) the pronoun precedes the verb. Thus, parti-

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42 Cf. Wiemer (2010a: 93–94; 2018a: 193–196, with further references) and the detailed account of Balkan Slavic and Albanian in Makarcev (2014: 148–205).

43 Thus, Mushin (1997) reports that Mac. *veli* functions as a quotative marker, but has not yet acquired a reportive function.

cle and inflected verb do not entirely coincide in shape.[44] Moreover, as a reportive particle *paraît-il* probably conventionalized only after an expansion from the inferential domain (as did many other SEEM-based units; see Section 15.1.4.1).

15.1.7.4 SAYC

A similar point can be made for reportive particles which via reanalysis have turned from 'say'.PRS.3SG + COMP into morphologically fused, univerbalized units. This phenomenon is well known for Romance languages (Cruschina and Remberger 2008), particularly in Ibero-Romance languages (see the relevant chapters in this volume). However, for Spanish this phenomenon proves more widespread in South American varieties (cf. Dankel 2015; Alcázar 2018), and only in these varieties cases seem to be attested in which *dizque* functions as a complement-taking predicate and thereby behaves like a heterosemic unit. See the following example (by courtesy of Juana Marín-Arrese):

(51)   Spanish
     Al preguntarle un amigo al expresidente Alfonso López Michelsen cómo estaba,

dizque	**que**	*le*	*contestó:*	*"envejeciendo*
say.PRS.3PL.COMP	COMP	3SG.DAT	answer.3SG.PST.PFV	growing.old

dulcemente".
sweetly
Respuesta que no todos pueden dar por culpa de ellos mismos.
'When they asked the ex-President Alfonso López Michelsen how he was, **they say that** he answered "sweetly growing old". An answer that not everyone can give through their own fault.'

[*El Tiempo*, 01.07.1998. Bogotá, Colombia]

Evidently, in the new univerbalized unit *dizque* the segment *-que* is no longer analyzed as a complementizer, instead the whole unit serves as a predicative (see Section 15.1.7.5).

Items with an analogous structure are adduced in Ramat and Ricca (1994: 296–297) for French, Modern Greek and Latvian, but they are related only to modal meanings (e.g., Fr. **Peut-être qu'il ne va pas repondre** '**May be that** he's not going to give an answer'), or the complement-taking predicate is factive

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44 An analogous point can be made for Germ. *scheints* (with *-s* being a fused expletive pronoun).

(e.g., Fr. ***Heureusement que*** *Jean a dormi paisiblement toute la nuit* lit. '**Luckily that** John slept peacefully the whole night'). In general, however, in European languages predicatives are rare outside of Slavic and Baltic (see Section 15.2.5).

15.1.7.5 Predicatives

The label 'predicative' refers to a class of units of non-verbal origin which serve as predicative nuclei and, since they lack verbal morphology, they are inflected neither for agreement nor for TAM-categories. Their argument takes the format either of a NP/PP or of a finite clause. Although heterogeneous in their provenance, most predicatives derive from adjectival stems (including participles). Predicatives are relevant for evidentiality because a small subclass of them denotes perception and/or judgment or even hearsay. Typically, not only do they lack a nominatival subject (or otherwise: an agreement controller of person-number), but they avoid or even disallow the syntactic coding of a sensing or judging subject. They can be negated if reference is made to directly perceivable objects, i.e., if they are not used as markers of indirect evidentiality (see the chapters on Russian and Polish).

In particular cases, predicatives originate in univerbations, as in the Colombian Spanish example (51) above, but such cases are in a minority. Most predicatives arise either as relics from former paradigms (e.g., earlier infinitives) or on the basis of inflected forms for categorial (i.e., paradigmatic) distinctions that have become obsolete in the given language. This is why predicatives are parasitic on well-established parts of speech and become "visible" only through the loss of categorial or behavioral properties of these parts of speech. This parasitic nature also explains why predicatives, among them those relevant for evidentiality, are so often heterosemic. Noticeable types of heterosemy are as follows:

a) predicative-particle, e.g. Pol. *widać* 'can be seen; obviously', as in *We mgle **widać** tylko **szarość**.*ACC 'In the fog only **gray can be seen**' (direct perceptual access), or *Po twarzy **widać, że** się martwisz* 'From your face **one can see that** you are worried' (perception-based inference) vs. *Ty, **widać**, nic nie zrozumiałeś* '**Obviously**, you didn't understand anything'.

b) predicative-adjective, e.g. Russ. *slyšno* 'can be heard' (vs. *slyšn-y*.PL 'hearable', with agreeing subject) as in *Slyšno šagi* 'One can hear steps' (direct perceptual access); Russ. *poxože* 'obviously, apparently' and Lith. *panašu* 'obviously' (vs. *panaš-us*.M.SG/*panaš-i*.F.SG 'similar').

c) predicative-infinitive: This type is exceptional, only contemporary Lithuanian provides good examples, such as *matyt(i)* 'see' and *girdėt(i)* 'hear'. In

Slavic languages, infinitives of equivalent lexical meanings have, as a rule, became obsolete, which leads to the heterosemy of type (a) above.

As a rule, units of type (b) or (c) can also be used as particles (see Section 15.1.7.3.1), so that the diversity of heterosemy subtypes with predicatives hinges on whether the lexical item still has a valency structure of its own ($\rightarrow$ predicative, infinitive or adjective) or has lost it and become a propositional modifier ($\rightarrow$ particle).

As we could see, predicatives cover different functional subdomains of evidentiality (direct – inferential – reportive). The range of functions has to be established unit by unit, but a general correlation holds between direct evidentiality and arguments realized as NPs vs. indirect evidentiality realized by finite complement clauses (see examples above). Moreover, particle use, again, shows a strong tendency toward reportive meanings (for details see the chapters on Polish and Russian, as well as on Lithuanian). These observations support the claim made in Section 15.1.4.1 about correlations between the degree of syntactic tightness and speaker's personal involvement with respect to SEEM-constructions.

15.1.7.6 Particle-complementizer, with some doubtful cases

In a sense, this type of heterosemy mirrors the behavior of the units discussed in the previous two subsections. Example (51), from a South American variety of Spanish, shows *dizque* as a complement-taking predicate (Section 15.1.7.4), thus the former complementizer has become part of a new unit which behaves either as a particle or as a predicate. In the European languages of this volume predicative-complementizer heterosemy based on SAY-units is unattested (at least for their contemporary stage), we find such heterosemy only for units based on other lexical sources; moreover, such units never incorporate a former complementizer.

As concerns particle-complementizer heterosemy in the languages of this volume, only Pol. *jakoby* is a clear case in point for the contemporary stage. Its Russian cognate *jakoby* (stressed on the first syllable) has been losing its complementizer use since the 19th century and is now almost only used as a particle, while members of the Russian *budto*-"family" ('as if') show clear tendencies towards use either as a particle (*kak budto*) or as a complementizer (*budto*), with *budto by* having less pronounced evidential uses (Wiemer and Letuchiy, this volume). Note that all these units arise from markers indicating similarity (or comparison), on which see Section 15.2.6.

Another case, unique in terms of its etymology and disputable as for its status, is Lith. *esą*, which can be used as a particle and arguably as a complementizer as well. This unit has resulted from a reanalysis of the neuter of the participle present active of *būti* 'be'. This reanalysis and the loss of the neuter as control gender led to the loss of morphological segmentability (*es-ą* be.PRS-PTCP.N.SG> *esą*.PTC). There are clear signs of a complementizer function of this unit (Wiemer 2010b, c). Regardless of this, one can still argue for a syncretism of reportive function and lack of epistemic support as a stable component in *esą*'s meaning (Holvoet 2016: 243–244), while Usonienė and Ruskan (this volume: Section 12.5) raise doubts whether *esą* should be ascribed a reportive value at all and propose to classify it as a distancing marker.

15.1.8 SAY-ONE with conditional

The pathway from SEEM-constructions referring to direct evidence via inferential meanings to reportive use is well attested (e.g., Fr. *paraît-il*); see Section 15.1.4.1 and Section 15.1.5.2. There are also cases in which, at least on face value, the development went in the opposite direction, namely: from reportive to inferential meaning on the basis of a SAY-verb. Consider Fr. *dirait-on* in the next example, in which the speaker draws an inference after, e.g., observing thick clouds in the sky:

(52)   French
[56]   *Il   va pleuvoir,   **dirait-on**,*
       it   rain.FUTP.3SG   say.COND.3SG-GEN_PRON
       *mais ce n'est pas mon avis.
       '**Looks like** it's going to rain, *but that is not what I think.'

As Dendale (this volume: Section 5.2.4.3) explains, the inferential function arises because of an impersonal 3SG-form of the conditional, which is a mood typically connected to potential or counterfactual statements. According to Rossari (2012: 77), the situation of saying that P ('it's going to rain') is situated in a potential world linked to the condition that somebody perceives what triggers the judgment (uttered in ex. 52). Although *dirait-on* derives from *dire*' say', this unit does not indicate hearsay (nobody has said anything), because the conditional suggests a potential act of saying P that could be uttered by anybody who observes the given situation: "you are not actually saying what you heard from somebody else, but you are saying that observed elements of reality would lead somebody (including you) to say such and such" (Dendale, this volume: Section

5.2.4.3). This is what makes *dirait-on* differ from the indicative equivalent *dit-on*, which marks hearsay, as it relates to a real act of saying. As Dendale emphasizes, *dirait-on* nonetheless is the speaker-oriented, since otherwise in (52) the second clause (*mais…* 'but') would not lead to a contradiction (the speaker cannot withdraw their own conclusion).

This sound explanation raises the question whether *dirait-on* could ever have been used as a reportive marker. More plausibly, this conditional form of SAY acquired an inferential function from the start. This assumption is supported by a Spanish equivalent of *dirait-on*, namely *se diría* (MM + 'say'.COND.3SG), put on the same board of inferential strategies with the indicative forms of SEE and KNOW: *se ve* (MM + 'see'.IND.3SG) and *se conoce* (MM + 'know'.IND.3SG) (cf. Marín-Arrese and Carretero, this volume: Section 6.2).

The explanation based on the conditional of a SAY-verb in a "generalized person"-form would apply to other languages as well. However, an identical construction type with equivalent verbs in other languages does not necessarily lead to the same inferential function. On a preliminary account, equivalents with subjunctive forms like Pol. *powiedziałoby się*, Russ. *skazali by/można by skazat'*, Germ. *würde/möchte man sagen*, Engl. *one would say*, Lith. *(pa)sakytumėm/(pa)sakytų/(pa)sakyčiau* sound unnatural as indicators of inferences; rather they simply mark opinion. Provided this can be confirmed in a reliable way, this would corroborate the conventionalized (and thus language-specific) character of the French and Spanish forms as individual evidential units.

15.2 Areal features

A persistent issue in areal linguistics is the question of explaining the convergence of linguistic structure (in the grammar or the lexicon). In fact, often it is hard or impossible to tell apart convergence by areal neighborhood from similarity by genealogical affinity, which includes shared features "inherited" from some common ancestor that either have been maintained in parallel or jointly gave rise to parallel developments in "sister languages". In addition, one should not discard factors that might be operative generally in language change, and which have been subsumed under 'universal tendencies' (cf. Thomason 2007) or which arise under specific social conditions, e.g., in small communities with dense networks or, conversely, in multilingual communities with relatively weak social network ties (cf. Wiemer 2021a: 283–286 for a survey). The problem aggravates in particular when we are dealing with closely related languages. Their speakers, as a rule, do not tend to migrate far away from each other and keep in more or less constant contact, which is favorable of continuous diffu-

sion of innovations, but also of the retention of inherited properties. Therefore, although this section is organized according to marker types and their sources, we should not overlook the genealogical factor, that is, in which cases does it dominate over (or "absorb") simple areal closeness and conditions the density of social networks? These questions cannot, however, be approached here.

15.2.1 Mood distinctions employed for evidential purposes

Our sample shows some bias toward the western part of Romance represented by French and all Ibero-Romance languages. In general, Romance conditionals function as past counterparts of the future (cf. Oliveira 2015: 108, following Squartini 2004), and their evidential extensions might be explained from this core function. Since the future rather associates with epistemic functions and inferences than with hearsay, one wonders whether reportive functions were acquired via inferential extensions of conditionals or whether reportive functions resulted from frequent use of conditionals in reported speech. In fact, a caveat is in place as to whether the reportive values assigned to these conditionals are not in fact a manifestation of reported speech. An analogous caveat is appropriate for the German *Konjunktiv I* and the analytic construction with *würde*. Whether this question can be confirmed certainly depends on the extent to which 'reportive conditionals' occur in embedded contexts (e.g., in clausal complements of verbs denoting speech acts). This cannot be answered here in a satisfying way (and the contributions to this volume have not addressed this particular issue). Let me only add that Hungarian casts interesting light on mood choice in propositional complements of perception, cognition and speech verbs. Here the conditional is <u>excluded</u> in reportive contexts, as in general in evidential readings; the conditional is licensed only if an epistemic evaluation (namely, weakening of epistemic support) comes to the foreground (Körtvély 2016: 595, 602–608). This looks like the opposite of evidential extensions of non-indicative moods in Romance, but probably this seeming contradiction can be explained from the different embeddings which these moods experienced in their diachronic development. Clarification on this point is a desideratum for research.

With this caveat in mind let us resume observations from the language-specific chapters. In all Romance languages considered in this volume, as well as in Italian (cf. Squartini 2008: 932–941), the conditional is employed to mark reportive evidentiality, both the simple and the compound (i.e., anterior, or perfect) conditional, although to a different extent. Thus, in French both the simple and the compound conditional are used with reportive meaning in main

and subordinate clauses. This also applies to Catalan, but in Spanish a reportive value occurs more prominently with the compound conditional, whereas the simple conditional is more closely associated with inferential values, although it is compatible with reportive contexts as well. In Galician the conditional seems to be more restricted to inferential meanings, while in Portuguese it appears to be more readily encountered also in reportive contexts (see the relevant chapters in this volume).

As concerns other functions, Sentí (this volume: Section 7.3.2.2) relates that in Catalan, unlike other Romance languages, not only the future, but also the conditional demonstrates a more limited use in conjectures in most Catalan dialects. This use is said to be more widespread in the Valencian dialect. It needs to be investigated whether this can be due to influence from Spanish. In general, similar considerations apply to the conjectural future and the MUST-auxiliary, with which the conditional in Romance languages maintains a paradigmatic relation (Sections 15.1.1, 15.1.3), as pointed out originally by Squartini (2005, 2008).

Evidential extensions of both the conditional and its future grams are also observed in Romanian. However, in contrast to the other Romance languages, these formations are etymologically unrelated to the conditionals and futures. In Romanian they are based on a contrast of auxiliaries (*ar*.PRS.3SG/PL 'have' for conditional vs. *va/o*.PRS.3SG 'want' for future) combined with the so-called short infinitive. The future can have epistemic (conjectural) readings, as in other languages (see ex. 53). For an evidential meaning to arise, the uninflected particle *fi* (descending from the former aorist.3SG of 'be(come)') has to be inserted between the auxiliary and a participle or an adjective; instead of the infinitive, a distinction between simultaneous ("present") and anterior ("past") reference is indicated by a choice between a present participle (so-called gerund) and a past participle. In this constellation, the two auxiliaries show a clear functional distribution: the future auxiliaries (*o*, *va*) are associated with inferential meanings (including conjectures), while the conditional auxiliary (*ar*) indicates reportive function (Irimia 2010: 325–329, from where ex. 53–55 are cited). With past participles, alternative readings remain possible; compare (54) and (55a–b).

(53) Romanian
      O   veni   mâine.
      AUX.PRS.3SG   come.INF   tomorrow
      'S/he might come tomorrow (but I cannot vouch for this).'   conjecture

(54) Romanian
      Vor   fi   terminat   de   scris.
      AUX.PRS.3PL   be.PTC   finish.PST.PTCP   SUP   write.SUP

(i) 'They apparently finished writing (e.g., yesterday at 5 pm).' inferential
(ii) 'They will have finished writing (e.g., tomorrow at 5 pm).'

future perfect

(55)   Romanian
  a. *Ar*   *fi*   *având*   *un*   *frate.*
      AUX.PRS.3SG   be.PTC   have.PRS.PTCP   a   brother
      'Allegedly, s/he has a brother.'   hearsay
  b. *Ar*   *fi*   *avut*   *un*   *şarpe.*
      AUX.PRS.3SG   be.PTC   have.PST.PTCP   a   snake
      (i) 'S/he apparently had a snake (based on what I am told).'   hearsay
      (ii) 'S/he would have had a snake
      (but s/he did not have the money to buy it).'   counterfactual

On the one hand, the contrast of the Romanian data with those from the western part of Romance support the view that the evidential extensions of the conditional arose from a shared history in the latter languages. As descendants of Vulgar Latin, not only do they share "common heritage", but they have been forming an areal continuum ever since then, so that, in order to explain the similarities in evidential extensions, it would be a hard job to disentangle mutual influence from genealogical affiliation. On the other hand, it is striking that Romanian underwent similar extensions for the conditional, which are alien to the languages (mostly Slavic) in its vicinity (see below), although the conditional (as well as the future grams) formed after the Romanian-speaking territory had been separated from the Romance dialect continuum in the west.[45] However, the fact that the Romanian conditional (with a reportive extension) and its future (with an inferential, or rather conjectural, extension) demonstrate complementary functional distribution can also be considered a partial effect of the widespread link between future and conjectural use all over Europe. That is, the remarkable thing to be explained is the reportive use of the conditional, not the conjectural use of the future.[46] The Romanian conditional is not only of different origin, but it appears to have expanded into the reportive domain directly, not through the intermediary stage of inferential use (as might be argued for in the case of the other Romance languages).

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45 For some background and references cf. Squartini (2005: 250–252).
46 The same applies, of course, to Romance languages in general, regardless of whether conjectural use should be considered part of a network of evidential meanings or remain relegated to epistemic modality (see the discussion in Wiemer and Marín-Arrese, this volume: Section 1.3.2).

Another general caveat is in order: what we observe in the Romance languages (possibly, with the exception of Romanian) is evidently determined by genre-specific properties much more than by differences between closely related languages (or their local or colloquial varieties). All these meaning extensions are particularly prominent in journalistic texts, where they are most straightforwardly favored for communicative purposes. The situation in colloquial speech has been studied to a much lesser extent, so that no generalizations about tendencies can be drawn. However, as Oliveira (2015: 109) remarks for Portuguese: "the future and the conditional are steadily losing ground to their counterparts (respectively, the present tense and the imperfect)". The question arises whether this withdrawal is not a typical feature of oral speech as such and whether, moreover, the spread of the conditional as an evidential strategy has not been conditioned by the written medium and literary patterns in cultural tradition since written varieties of Romance arose out of local varieties of Vulgar Latin.

A similar point has to be made for the subjunctive and its analytic replacements in Continental Germanic.[47] The German *Konjunktiv I* (i.e. basically the present, 'simple' subjunctive) is a typical feature of reported speech in journalistic genres (including news on TV) and rather unusual in spontaneous speech. Leaving aside the question whether this use of the subjunctive should be considered evidential (reportive) at all (Mortelmans and Stathi, this volume: Section 4.4.2, with further references), it is the last "synthetic" verb form from the optative mood domain inherited from its ancestors. It has largely been replaced by a periphrasis based on *würde*, the old subjunctive form of *werden* 'become' (Smirnova 2006); the latter independently developed into a future auxiliary. The same holds true for Dutch *zou(den)*, which "functions as a backshifted tense form of future *zullen* in contexts of indirect speech" (Mortelmans, this volume: Section 3.2). This is equivalent to the function of Romance conditionals as past counterparts of the future (see above). However, the periphrastic subjunctives of Dutch and German are not used as inferential markers (Harmes 2017: 157–160), contrary to conditionals in Romance languages, where (except Romanian) inferential use might have supplied the basis for reportive extensions.

The languages of the eastern part of Europe, among which the Slavic group clearly dominates, do not show extensions of subjunctives or conditionals into

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47 Quite conspicuously, English does not show a tendency of employing the *would*-periphrase (as kind of analytic subjunctive) in reported speech. For a short comparison of OE. *sceolde* > Engl. *should* and ODu. *s(c)olde* > Du. *zou(den)*, also on the background of the loss of morphological mood distinctions, cf. Harmes (2017: 165–166).

reported speech[48] or as self-standing reportives, the exception being Romanian (see above). Grammatical forms (or paradigms) are used as evidential markers in Baltic and Estonian (and other Finnic languages farther to the east) as well as in Balkan Slavic, but these are never extensions of older subjunctives (or conditionals). If anything, evidential forms (constructions) occasionally combine with the subjunctive in some Latvian and Lithuanian dialects (Holvoet 2001: 111) or in Macedonian (Friedman 2003: 205).

15.2.2 Perfects (anterior grams)

Extensions of perfect (or anterior) grams into indirect, in particular inferential, evidentiality are widely attested, also in Europe; they are well known in the eastern part of the Circum Baltic Area (Baltic, Finnic), on the Balkans, in Iranian and some languages in the Caucasus (cf. Tatevosov 2001; Kehayov 2008: 25–28; Friedman 2018: 129–142). More precisely, these extensions usually affect the present perfect,[49] while forms deriving from the pluperfect (= anterior or resultative in the past) tend to gain stronger epistemic overtones, for instance, in Bulgarian (cf. Guentchéva 1996: 53; Sičinava 2013: 154–156, among others). Regardless, both the present and the past perfect are in stark contrast to the future perfect and the compound conditional (used as future in the past). The latter shows an entirely different areal and genealogical distribution: it is prominent in Romance and, thus, in the southwestern part of Europe, while in the remainder of Europe compound conditionals are not attested with evidential functions (as evidential strategies); see Section 15.2.1. In turn, the future anterior (if it exists) is used to mark conjectures, which is more like an epistemic function. The Baltic languages and Balkan Slavic demonstrate extensions into indirect evidentiality for the present perfect and the pluperfect, but neither for the future perfect, nor for the compound conditional (see Section 15.1.3).

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48 Such extensions are occasionally attested only in high-contact varieties like Molise Slavic in southern Italy (Breu 1999: 251).
49 A cognitive explanation for such extensions amounts to metonymic shifts from observed facts to the event(s) that brought them about (this account seems plausible for Lithuanian inferential constructions based on anterior participles). An alternative, or additional, factor may be seen in the frequent occurrence of perfects in clauses embedded under verbs denoting speech acts or cognitive attitudes (Aikhenvald 2004: 281–283). The latter explanation is more plausible for Latvian, where the relevant participial constructions only show reportive, but no inferential meanings; cf. also Wälchli (2000). See also Section 15.3.2.

Therefore, although the factors behind the anterior > inferential or anterior > reportive shift are well known, and such shifts are quite widespread, they do not occur "automatically"; languages with well-established perfect systems (e.g., English, conservative Romance, Baltic, Balkan Slavic) differ substantially as to whether this shift occurs (and conventionalizes) or not. This shift is evidently unrelated to the "resistance" which these languages share against a (present) perfect > general past shift; the latter shift is pervasive in the central part of the European continent (Thieroff 2000: 282–286). Thus, resistance to this shift (i.e., preservation of the present perfect) is only a precondition for evidential extensions, but no "guarantee" that the latter occur. Moreover, if they occur they often spread over boundaries of language groups (as in the three areas mentioned above). All this together indicates that evidential extensions of the (present) perfect are susceptible to diffusion via contact and not so much linked to genealogical affiliation.

15.2.3 Constructions with non-finite verb forms

Since in European languages perfects are usually based on participles, we should briefly consider their role in evidentiality marking on a broader backdrop. Again, strikingly, languages that use participles as predicates of independent clauses to mark indirect evidentiality (Baltic, Estonian, Balkan Slavic) do not areally overlap (or even neighbor) with languages in which other nonfinite forms, namely infinitives and gerunds, are employed in constructions that are closely associated to direct evidentiality. The latter constructions are generally known under labels like (subject-to-object) raising or accusative-with-infinitive (AcI). However labeled, their core domain is perception verbs; as such they are well attested in English (compare *I see them come*, *We hear them talking*) and to some extent in other languages of Europe's western edges, but unknown in the languages of Europe's eastern half.[50]

Notably, the distribution of subject-to-object raising markedly differs from subject-to-subject raising (or NcI-constructions) with SEEM-verbs (compare *They seem to be embarrassed*). From an areal point of view, the latter kind of construction can be observed all over the place (at least with intransitive predicates embedded under SEEM). Moreover, "raised" (i.e. monoclausal) SEEM-constructions are much less (if at all) associated to direct evidentiality and show a

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50 In Slavic they have been attested only in varieties for which more intense contact with German can be assumed.

broader range of functions; they are much more prominent with inferential (perception-based) uses, sometimes even with hearsay (see Section 15.1.4.1).

However, the NcI-pattern has been more productive (i.e. applicable to a wider range of verbs) in English (cf. Noël 2001). Marín-Arrese, Carretero and Usonienė (this volume: Section 2.5) report on findings according to which productivity steadily increased in English over the centuries, whereas in Dutch and Danish the expansion stopped at some point and then shrank. According to Noël and Colleman (2011), in Dutch the NcI-pattern is best represented in deontic meanings, whereas only a small number of corpus tokens has reportive meanings. In Danish, by contrast, it is the "reportive passive" which is now prominent for this construction (Ørsnes 2011, 2013). Admittedly, findings indicate that the prominence of deontic or, alternatively, reportive function with different verbs in the core of this construction has been changing, for instance, in English (cf. Breeze 2017 on *supposed to* and *expected to*). However, regardless of a certain instability of reportive functions with particular "lexical fillings" of this construction type, it is intriguing that verbs of cognitive attitude seem to acquire a reportive function rather if they are passivized (and then occur in a NcI-construction). More precisely, the NcI-construction presupposes a specific type of passivization: the referent which figures as a prominent participant of a proposition is promoted to the privileged syntactic argument (PSA) of a passive-like monoclausal structure that codes the same proposition as does an equivalent biclausal construction (e.g., *They believe that X has written a novel* ≅ *X is believed to have written a novel*). This type of subject-to-subject raising or promotion to PSA is favored in English, but not in other languages, in particular in languages of Europe's eastern part, which otherwise demonstrate diverse techniques in demoting the most agent-like argument. Compare, for instance, Lithuanian with its productive participle structures in which the most agent-like argument is demoted (cf. Wiemer 2006; Holvoet 2007: 96–104; Spraunienė et al. 2015). Many of these are encountered to mark information source or related functions which arise simply from the lexical meaning of the verbs (e.g., *manoma* 'is believed', *teigiama* 'is claimed', *pastebėta* 'has been noticed'). Only few of them are lexicalized as particles (e.g., *žinoma* 'of course; as is known' < *žinoti* 'know'), and their frequency of occurrence varies a lot depending on the medium (written vs. spoken), genres and other factors (cf. Usonienė and Ruskan, this volume: Section 12.4).

Therefore, for the formation of NcI-constructions with evidential functions a language must allow for passivization with suitable verbs (in Slavic languages this is usually not the case), so the rise of such evidential markers heavily de-

pends on some more fundamental properties of the grammar of the respective language (or its grammar-lexicon interface).

15.2.4 Auxiliaries

Modal auxiliaries (otherwise simply called 'modals') can be defined as operators of predicates that modify states of affairs (SoAs) or propositions along the contrast between necessity (NEC) and possibility (POSS). Among other things, their degree of grammaticalization depends on the range of functions they are able to cover in the semantic space of modality, which is determined by the conversational backgrounds for which the NEC-POSS contrast applies. These backgrounds can be dispositional (i.e. NEC-POSS is conditioned by internal properties of an individual participant, e.g. ability), circumstantial (i.e. NEC-POSS arises on the basis of objective circumstances external to the individual), deontic (i.e. NEC-POSS is restricted by rules and social norms, e.g. prohibition, obligation), or epistemic (i.e. NEC-POSS concerns the speaker's subjective assessment of the probability that P obtains); cf. van der Auwera and Plungian (1998), Hansen and De Haan (2009), with slightly different terminology.

MUST-auxiliaries are NEC-operators *par excellence*, and their extensions into the inferential subdomain of evidentiality are well-known. They have been accounted in all contributions to this volume. Extensions of MUST into reportive evidentiality are virtually unattested for these languages; occasional occurrences which have been claimed for Du. *moeten* turn out as doubtful (see Section 15.1.1). As concerns other European languages, only for Est. *pidama* 'must' (and to some extent for its Finnish cognate) a reportive extension has been noted, which is restricted to its past tense form (Kehayov and Torn-Leesik 2009: 374, 380, and Wiemer 2010a: 76–77, following Erelt 2001). In this respect, MUST-modals in European languages appear to be boringly uniform.

As for WILL (whose status as a modal is arguable anyway), we may point out Germ. *wollen*, whose reportive use however is doubtful (Mortelmans and Stathi, this volume: Section 4.4.2), and Icelandic *munu*, which can be used in a reportive construction; cf. Mortelmans et al. (2009: 50–51). The example adduced there shows that *munu*, distinctly from Germ. *wollen*, does not require the subject of the clause to be identical with the original speaker:

(56)   Icelandic
    Það   mun   hafa   verið   mús   í   baðkerinu.
    there shall/will.PRS have.INF be.PTCP mouse in   bathtub.ART
    'There is said to have been a mouse in the bathtub.'

This changes with less widespread modals with more complex meanings like Pol. *mieć*. Apart from its meaning as a "lexical" verb ('have'), *mieć* serves as a weak deontic NEC-modal that has extended into reportive evidentiality. Most briefly: the shift into the latter domain was possible because the obligation component ('Y has to do S') implied an utterance ('X said: Y has to do S', or: 'X said to Y: Do S!'), which could, as it were, be echoed by Y or another person. The deontic (or directive) component and the utterance component could (and still can) be variably back- and foregrounded, but presumably only when, instead of a deontic or directive utterance, representative speech acts ('X said: Y is late today') started being "echoed", a reportive function, void of modal or volitive components, could become prominent ('X is said to be late today'). This complex process has to a large extent only been reconstructed and still waits for its corpus-based analysis in details (cf. Wiemer and Socka, this volume: Section 11.3.2, Section 11.6.4, also for references).

Anyway, it becomes evident that a deontic-reportive polysemy (or meaning alternation) of a weak NEC-modal has a close parallel in German *sollen*,[51] and for both Pol. *mieć* and Germ. *sollen* an inferential meaning is absent. The same meaning alternation is attested in the other West Slavic languages, but to a lesser extent (Hansen and Ansaldo 2016: 415–416). By contrast, Du. *zou(den)* is no longer used as a modal, instead its use as a hypotheticality marker has become predominant and a new hedging function has developed, against which the reportive function appears marginal. Moreover, *zou(den)* continues the former past tense (or subjunctive) of *zullen*, which is used as a future marker in modern Dutch. This contrasts with their German cognates *sollten* (former past/subjunctive, but not used as reportive) and *sollen*, which has the deontic-reportive alternation discussed here (Harmes 2017). In turn, the Danish cognate of *sollen*, *skulle*, is employed with reportive meaning, among other things (Mortelmans et al. 2009: 40–41). These observations suggest German as a model for pattern borrowing into West Slavic (Weiss 1987, 2009; Wiemer and Hansen 2012: 77–78) and a rather independent development in Dutch, which functionally resembles French.[52] The diachronic relation between Germ. *sollen* and Dan. *skulle* seems less clear, but in view of the West Slavic data it looks like German having been the center of diffusion for the development of a deontic modal into a reportive construction.

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51 Cf. Zeman (2013) for the diachrony, Vanderbiesen (2018) and Socka (forthcoming: §3.1) for the contemporary stage.

52 For the typology of pattern and matter borrowing cf. Sakel (2007).

A roughly comparable meaning alternation can be observed for Engl. *supposed to*, which however is based on a passivized form in an NcI-pattern (see Section 15.2.3). It thus arose from a very different type of development; moreover, the deontic function of *supposed to* probably post-dates the evidential (i.e. reportive) function, as Noël and Colleman (2011: 175) remark. The areas in which evidential constructions based on NcI-patterns (mostly English, less so in Dutch and Danish; see Section 15.2.3) and, respectively, constructions based on weak deontic NEC-modals (German, West Slavic) occur overlap only to a minimal extent.

15.2.5 Predicatives

As becomes clear from accounts of predicatives (see Section 15.1.7.4), many of their characteristics are defined *ex negativo* (e.g., lack of verbal categories and of agreement controllers). This indicates, inversely, that predicatives can become a salient class only if a language displays sufficiently rich inflection in nominals (in particular in adjectives). In fact, predicatives became an issue in Slavic linguistics since there are certain forms of adjectives (incl. participles) that do not fit into usual inflectional patterns of adjectives, but also differ from adverbs in syntactic behavior (sometimes also in form); moreover, there are nouns and infinitives that do not behave like nouns or infinitives syntactically, some of them have been paradigmatically isolated. Briefly, predicatives are a "mixed bag" of nonverbal units whose sole common features are their (often exclusive) ability to serve as predicative nuclei with their own argument structure (thus, they are not adverbs) and the fact that their behavioral properties (often also coding properties) differ from "normal" representatives of those syntactic classes from which they morphologically derive (adjectives, nouns, PPs).[53] Apart from Slavic languages, we find predicatives in Lithuanian.[54] Suffi-

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53 Cf. Wiemer (2019: 128–138) for some background and references.

54 Mostly for adjectives in the guise of the obsolete neuter (the neuter has been lost in nouns, i.e. as a control gender), e.g. *Mišk-e*.LOC *tams-**u*** 'In the forest it's dark'; *Šiandien šilt-**a*** 'Today it's warm'; *Čia m-ums*.1PL-DAT *bais-**u*** lit. 'here for us it's frightening', or with propositional arguments: *Aišk-**u**/suprantam-**a**, kad P* '(It's) clear/understandable that P'. These remnant forms are morphologically distinguished from adverbs (ending in -*ai*), e.g. *aiški-ai* vs *aišk-u* 'clear(ly)', *panaši-ai* vs *panaš-u* 'similar(ly)', *matom-ai* vs *matom-a* 'visible/visibly'. The same diachronic backdrop applies to non-agreeing participles in (unstressed) -*ta* and -*ma* (e.g., *J-o*.3-GEN.SG.M *pastebė-t-a* '(it's) been noticed by him > He must have/is said to have noticed', *rašo-m-a* '(it's) written') which have often been mentioned in the context of grammatical evidentiality marking (cf. Usonienė and Ruskan, this volume).

cient inflection of nouns and adjectives as a precondition of predicatives explains why this class of predicates is a feature of the Eastern half of Europe, in particular of North Slavic and Lithuanian.

To the extent that this class contains predicates with some "evidential potential", predicatives have been treated in the chapters on Russian, Polish and Lithuanian.

15.2.6 Complementizers with an evidential function

A well-known case of clausal complements relevant for evidentiality marking is clauses introduced by a HOW-complementizer. They denote situations observed by some subject and, therefore, unfolding in an overlap with the speech time interval (cf., among many others, Aikhenvald 2004: 121–122, and Wiemer 2021b: 91–98). Compare an example

(57)   Russian
    Vs-e   *vide-l-i,*   **kak**   *ego*   *uvodj-at.*[55]
    all-NOM   see[IPFV]-PST-PL   how   3M.ACC   bring.away[IPFV]-PRS.3PL
    'Everybody saw him being taken away' (lit. '… **how** he is taken away').
        [Russian National Corpus; A. Rybakov: "Tjaželyj pesok". 1975–1977]

Possible equivalents of such complements with a HOW-connective are complements with a non-finite verb form (and without a complementizer), like the English bare infinitive or the gerund (*He saw them cross/crossing the street*) or another converb, for instance a non-agreeing participle in Lithuanian (*J-is.*3-NOM.SG.M *mat-ė.*PST.3 *j-uos.*3-ACC.PL.M *artėj-ant.*NAGR.PRS 'He$_i$ saw them approaching (him$_i$)'; cf. Arkadiev 2012). However, non-finite verb forms as nuclei of dependent clauses after verbs of perception are not available in many languages, even if they show ample use of those forms in other grammatical contexts (see Section 15.2.3). For instance, Russian and Polish do not allow for infinitival complements after verbs of perception, and converbs are generally disallowed in complementation; in turn, in Lithuanian the use of non-agreeing converbs after verbs of perception (as in the example above) is stylistically restricted in the contemporary language and hardly encountered in colloquial data. In all those cases, finite HOW-complements are the most widespread option, often without an alternative. They, thus, do not seem to be a good discriminator

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55 Slavic languages normally do not follow rules of the sequence of tenses.

among languages (and this is why clausal complementation with HOW-connectives has not been analyzed in this volume).

There are more intriguing cases which reveal a clearer areal cluster. Before elaborating on them, a general caveat will be in order. Inasmuch as complementizers are means that link clausal arguments to complement-taking predicates (CTPs) and, in this function, are in "semantic harmony" with the governing CTP, one may argue that complementizers do not convey some specific meaning independently from "their" CTP. This holds true as well for candidates of evidential complementizers. Rather, complementizers can be compared to case markers on argument NPs in simple clauses; correspondingly, they serve as "flags" of dependent clauses.[56] To the extent that many CTPs allow for complementizer choice – and this applies probably in all cases relevant for evidentiality – the choice of the complementizer reflects a meaning alternation of the CTP, or a meaning alternation of the entire sentence.[57]

This admitted, let us now look out for complementizers with evidential functions (except HOW for direct perception). They are comparatively rare, at least in European languages, and most of them have remained in emergent stages. Within this narrow field, the employment of comparison markers (also called 'similatives'),[58] stands out. They are attested in Europe's southwest (e.g., Spanish) and in its northeast (e.g., Russian), but they also occur between these antipodes. However, in most cases they are only used after verbs of appearance (and related ones) and, in this respect, have not moved that much away from their original function as indicators of comparison (or similitude). Only in Europe's northeast do we find them in reportive contexts (see below).

Apart from comparison markers, another source of evidential (in particular, reportive) complementizers is the permissive-hortative domain (closely connected to analytical causatives). However, the only clear case to be pointed out here is *naj* in Slovene (not treated in this volume), which is a petrified form of the verb **nehati* 'let, release' otherwise employed as an auxiliary in analytical causatives in West and South Slavic (cf. Wiemer 2021b: 84–88).

Thus, the dominance of similatives as sources of evidential complementizers is striking. Generally, their employment as clausal connectives can be seen

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56 This is equivalent to 'functional heads' assumed in formal syntactic theories.

57 In this respect, complementizer choice with predicates that allow for (or require) clausal arguments is equivalent to differential argument marking (in particular, flagging) as it has been described for argument NPs on the level of simple clauses.

58 Cf. Treis (2018) for a survey and López-Couso and Méndez-Naya (2012b: 313–314) for a short comparison of Comparison and Similarity.

as an extension (or rather: a specialization) from the comparison of various ontological entities (things, properties, situations) that correspondingly are expressed, as a rule, by constituents of different formats (NPs, PPs, clauses). In a sense, instead of comparing two objects or persons (e.g., *You look like your sister*) one can compare some propositional content to another proposition, and both can be linked with a connective (cf. Letuchiy, forthcoming), e.g.

(58)   A   B
        [*He stumbled into the room*] *as if* [*he were drunk*].
              clause 1   clause 2

Clause 2 can be expressed in a way that deviates from the expression of independent declarative clauses, e.g., by subjunctives or equivalent distinctions (here: by *were* instead of *was* with a third-person singular subject). This indicates that, for the speaker, proposition B does not match with reality, or that the speaker distances themselves from this proposition,

From a syntactic point of view, (58) is an instance of adverbial subordination, whereas clausal complementation applies if clause 2 fills an argument slot of the predicate in clause 1. An argument relation can be observed with SEEM-verbs (or perception verbs with a reflexive marker; see Section 15.1.4). See the following examples; in (59) we are dealing with a direct observation, in (60) *looks as if* points to an inference (cf., Marín-Arrese, Carretero and Usonienė, this volume: Section 2.2.2):

(59)   English
        *He **looks as if** he were older*.   [López-Couso and Méndez-Naya 2012a: 173]

(60)   English
[12]   *(…) It **looks as if** you're in for a busy morning. It's pretty full out there*.

As at least emergent complementizers, AS IF-connectives are attested in various European languages. Usually, they have been mentioned but casually, with few exceptions like López-Couso and Méndez-Naya (2012a, b, 2015), which however consider only a small amount of languages. Among such emergent evidential complementizers belongs Sp. *como si*, but not Gr. *san* 'like, as'; the latter is a comparison marker (see 61), but it cannot be used to connect clauses (K. Stathi, p.c.):

(61)   Greek
[28]   *San   na   érxete   i   mama*
        like   PTCL   come.IPFV.NPST.3SG   ART   mum
        'It seems that/looks like mum is coming.'

Sp. *como si* 'as if' is employed after SEEM-verbs as an alternative to the standard complementizer (*que*);[59] *como si* emphasizes that, in the speaker's opinion, the comparison does not really fit reality. This insufficient match can be based on direct perceptual experience, or it arises because the speaker makes an inference and then may be not entirely committed to, or even doubt in, the truth of the proposition conveyed by the complement clause (cf., Marín-Arrese and Carretero, this volume: Section 6.2.2).

(62)   Spanish
        Parece como si *fuera a llover.*
        '**It seems as if** it is going to rain.'

[López-Couso and Méndez-Naya 2015: 195]

(63)   Spanish

[17]   ***parece   como si***   *no*   *hiciera*   *coche*   *más*
        seem.PRS.3SG   as if-COMP   not   make-PRS.SBVJ.3SG   car   more
        que para   que
        than for   COMP
        no nos matemos, ¿no?
        '(...) **it seems as if** they make cars only with the aim that we do not kill ourselves, right?'

Similar points apply to Engl. *as if* in opposition to *that* and equivalents in other languages. In particular cases – as in (60) – one may argue whether the AS IF-clause refers to direct evidence or rather points to an inference (*It's getting a busy morning for you*) triggered by the observed situation (*It's pretty full out there*). By contrast, Mortelmans (this volume: Section 3.3.3.1) remarks that Du. *erop dat* lit. 'thereupon that' seems to preclude a perceptual basis, but its inferential function can be considered conventionalized to some extent. Compare the following example, in which the inference has a conceptual basis (Mortelmans, this volume: Section 3.3.3.1):

(64)   Dutch

[24a]   *Het **lijk-t   erop dat** dievenbendes   een   nieuw   gat*
        it   seem-PRS.3SG like.it that gangs of thieves ART.INDF new   hole
        in de [...] markt hebben gevonden. Voor de derde keer op twee weken tijd
        werden loodsen van de overheid leeg<ge>haald.
        'It **seems that** gangs of thieves have found a new hole in the market. For the third time in two weeks public sheds were gutted.'

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59 López-Couso and Méndez-Naya (2015: 195) also mention *como que* (vs. simply *que*).

Alternatively, *alsof* 'as if' can occasionally be found after *lijken* 'seem' as well, and (66) demonstrates that it can be used for perception-based inferences:

(65) Dutch
[26b] *Er   is   eindelijk dialoog, het   **lijk-t**   **alsof***
       there be.PRS.3SG finally   dialogue it   seem-PRS.3SG as.if
       de   discussie uit   de   impasse klauter-t.
       ART.DEF.SG.C discussion out.of ART.DEF.SG.C impasse climb-PRS.3SG
       'Finally, there is some dialogue, it **seems as if/that** the discussion is getting out of the impasse.'

(66) Dutch
      *Het lijkt wel **alsof** Alfred zijn groenten opgegeten heeft.*
      'It seems **as if** Alfred has eaten his veggies.'
            [López-Couso and Méndez-Naya 2015: 196, citing Rooryck 2000: 48]

Similar connectives behaving like complementizers can be found in other European languages as well. However, practically all such complementation structures are restricted to a narrow class of verbs of appearance (including pretense verbs), and their extension into evidentiality is limited. If they can be qualified as inferential markers, judgments may be based on virtually any sort of knowledge background; otherwise, as Marín-Arrese, Carretero and Usonienė (this volume: Section 2.2.2) put it, "[t]he choice of complementizer is relevant because *as-if/though* and *like*-clauses often signal that the inference is basically conjectural and based on comparison with a virtual or potential situation, [...], thus indicating a weaker commitment to the propositional content than in clauses with the complementizer *that*". See the following example:

(67) English
[16] *Bernard Shaw has just completed the fourth volume, but it **appears as if** bricks, not books, will finish him off.*   [British National Corpus]

From the languages of our sample, only those situated in the northeastern part of Europe show a tendency toward developing complementizers in the reportive domain. I am unaware of any other such cases reported for European languages,[60] and even Boye et al. (2015: 8–10), who examined 89 languages of a genealogically balanced worldwide sample, found complementizers with a reportive function only in Turkish and West Greenlandic.

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60 This also applies to Slavic languages other than Russian and Polish (Wiemer 2018b: 313–328).

The best examples to make a case for reportive complementizers are Pol. *jakoby* and Russ. *budto* (see the relevant chapters in this volume). Their comparison uses in clausal adjuncts (68) or complements (69) have become rare and are felt obsolete, here illustrated for Polish:[61]

(68) Polish

Wiadomość uderzyła mnie,

jakoby   *piorun*   *trząs-ł (...).*

SIM.IRR   lightning[M]-(NOM.SG)   shake[PFV]-PST-(3SG.M)

'The news struck me **as if** the lightning was shaking.'

[Polish National Corpus]

(69) Polish

Przeszłej nocy śniło mu się,

jakoby   *gruszk-i*   *z*   *drzew-a*   *rwa-ł.*

SIM.IRR   pear-ACC.PL   from   tree-GEN.SG   tear[IPFV]-PST-(3SG.M)

'Last night he dreamed **that** he was tearing pears from a tree.'

[E. Orzeszkowa: "Nad Niemnem". 1888]

Instead, Pol. *jakoby* is now typically used to refer to other people's statements from which the speaker distances themselves (see ex. 70), but epistemic overtones can be lacking (Wiemer 2015: 220–224).

(70) Polish

Nie możemy tej firmy wyłączyć – odpowiada, ale jednocześnie

zaprzecza,   **jakoby**   *AMI*   *traktowan-a*   *by-ł-a*

deny[IPFV]-(PRS.3SG)   COMP.IRR   PN   treated-NOM.SG.F   be-PST-3SG.F

lep-iej   *od*   *reszt-y*   *mieszkańc-ów.*

better-ADV   from   rest-GEN   resident-GEN.PL

'We cannot turn off this company – he replies, but at the same time denies **that** AMI is treated better than the rest of the residents.'   [PNC]

In Polish and Russian, these units are also used as particles, without a change in their functional load. Thus, to the extent that they are acknowledged complementizer status, these units are heterosemic (see Section 15.1.7.6); compare Pol. *jakoby*:

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61 The original comparative uses have been taken over by cognate units (Pol. *jakby*, Russ. *kak by* 'as though, like').

(71) Polish
(...) lampka czerwonego wina dziennie

wpływa		**jakoby**	*kojąc-o*	*na*	*nasz-e*
influence[IPFV]-(PRS.3SG)		REP	soothing-ADV	on	our-ACC.PL

skołatan-e   serc-a.
troubled-ACC.PL   heart[N]-ACC.PL

'**Allegedly**, a glass of red wine a day has a soothing effect on our troubled hearts.'   [PNC]

Complementizer-particle heterosemy would also apply to more arguable cases, which are Lith. *esą*, *lyg*, *tarsi* and Ltv. *it kā*. While *it kā* and *lyg* etymologically relate to comparison, *tarsi* is a petrified FUT.2SG-form of *tarti* 'pronounce, tell'. In our small sample, it might be qualified as the only candidate of a SAY > complementizer change (as listed, e.g., in Heine and Kuteva 2002), although only an embryonic one since its complementizer status is shaky. It is used as an adverbial subordinator (for comparisons that, in the speaker's view, are not conform with reality); as a complementizer it can appear after SEEM-verbs, and it can occur clause-initially in propositional complements of speech verbs, although it is difficult to come by with examples from corpora. Here is an example from the internet:

(72) Lithuanian
Faktas Skaistė tam gale nei pati buvo, nei kažką matė,

o	*teigi-a*	**tarsi**	*pat-i*	*išvad-as*
and	claim-PRS.3	as.though	self-NOM.SG.F	conclusion-ACC.PL

padar-ė.
do-PST.3

'It is a fact that, in the end, Skaistė neither was there herself, nor did she see anything, and she claims **that** she drew her own conclusions.'
[https://www.etaplius.lt/del-sunu-geroves-pazeidimu-suspenduota-zinomo-veislyno-eos-tanagros-veikla/komentarai, 30.05.2021]

Regardless of its syntactic status, *tarsi* retains its function by which the speaker distances themselves from the propositional content; a reportive extension implies that this distance relates to other people's claims (as in ex. 72). A similar point can be made for *lyg* and *esą*, although the latter has an entirely different etymology (see Section 15.1.7.6). The complementizer status of *esą* has likewise been debated, mainly because researchers assume that a structure like (73b) has

to be deduced from a structure as in (73a), that is from the deletion (or dropping) of an epistemically neutral complementizer:[62]

(73)   Lithuanian
   a.   *Teig-ė,*   *kad*   *esą P.*
        claim-PST.3   COMP
   b.   *Teigė, esą P.*
        'S/He claimed (that) *esą* P.'

The same might be pointed out for *tarsi*, *lyg* and Ltv. *it kā*. This assumption turns out vulnerable (not only because clauses headed by *esą* also attach to nouns), and there are more intricacies in the arguments raised against both the complementizer status and the evidential function of all these units, which cannot be discussed briefly. For this reason I here refrain from going further into this issue.

Notwithstanding the arguable status of these units in the Baltic languages, from a bird's eye view it is difficult to overlook that a tendency for AS IF-connectives to enter into the reportive domain as at least emergent complementizers can be spotted only for a region in Europe's northeast. Russ. *budto* has been MAT-borrowed into the Permic languages Komi and Udmurt. Klumpp (2016: 553) shows that *byťťö* functions as a comparison connective also in propositional complements of speech-related verbs and, thus, can behave as a reportive complementizer.

Although as for Europe we have not been able here to consider, for instance, Scandinavian languages and non-Indoeuropean languages other than Basque, neither a perusal of Boye and Kehayov (2016) nor the survey in Kehayov and Boye (2016) bring to light any other area in Europe in which complementizers "specialized" in, or at least related to, the reportive domain have been emerging.[63] This contrasts with the more widespread phenomenon of AS IF-complementizers expanding into inferentiality. Thus, an intriguing issue for further research is the question whether the reportive functions of complementizers (or complementizer-like connectives) in Polish, Russian and possibly Baltic were acquired through preceding inferential use, or whether there have been other roads into reportive use. Possibly, the answer to this question requires an item-by-item analysis.

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62 For discussion concerning Lith. *esą* and/or Ltv. *it kā*, cf. Chojnicka (2010), Wiemer (2010b, c), Holvoet (2016: 238–246) and Usonienė and Ruskan (this volume: Section 12.5).

63 I do not count here obvious combinations of a THAT-complementizer with direct speech, as discussed, for instance, for Estonian by Kehayov (2016: 484–485).

15.3   Conclusions

This chapter has attempted to summarize results from the language-specific chapters of this volume in order to achieve a more comprehensive picture of the various means of evidentiality marking in European languages. Additional information concerning languages from outside the small language sample of this volume has been accounted for, if it appeared useful in complementing this picture. Lexical (or extragrammatical) expressions have been evaluated on the background of better known grammatical means. The picture nonetheless has remained fragmentary in at least two respects. First, whole areas have been left out of sight, such as Scandinavia and largely the Balkan Peninsula. Together with this, only one non-Indo-European language, at once a genealogical isolate, has been systematically taken into consideration, namely Basque, whereas two other isolates, Albanian (Indo-European) and Maltese (Semitic), and whole groups like Celtic, Turkic and Uralic (Finno-Ugric, incl. Saamic, and Permic) have almost entirely been left beyond consideration. We have to keep in mind that our sample of languages is unbalanced, but it anyway has not been the aim here to give a fully representative account of European languages. Second, although from the onset the task concentrated on describing lexical markers of evidentiality, to determine their inventory in a particular language has proved to be much more difficult than for those means that are organized into tighter paradigms and/or more clear-cut constructional frames (like those of SEEM-verbs; see Section 15.1.4). Scattered coding in the context of grammatical evidentiality marking has been discussed, among others, by Aikhenvald (2004: 80, and passim) and Boye (2012: 115–122). However, in the absence of more clear-cut constructional frames and in view of the heterogeneous morphological shape of lexical units (i.e., of units understood as words, not as affixes or clitics) it proves much more difficult to "fish out" from discourse expressions with suitable functions and to determine their distributional properties.

After all, an account of lexical markers easily becomes too broad or too narrow, but for different reasons, which basically have to do with methodology.

15.3.1   Methodological concerns

An account of lexical evidentiality markers can become unjustifiably broad if we consider all sorts of expressions that at least occasionally acquire a function specifying information source. This raises the issue of what counts as sufficiently conventionalized and what not, or otherwise: what is pragmatically inferred

and what makes a stable contribution to the meaning of utterances. Moreover, an account may become too prolific, for instance, in the inferential domain since in principle any kind of judgment can be based on just some knowledge background.[64] If we account for every possible type of knowledge background, even very vague and unspecific ones, we end up by saying that every epistemic modifier has at the same time an evidential value. This might be justifiable from a theoretical point of view – i.e., as far as the conceptual relation between epistemic support and epistemic justification (= evidentiality) is concerned – but probably this is not what we want to achieve for the descriptive purpose of classifying language-specific expressions according to meaning components that are highlighted, or predominant (also in terms of frequency), in their use. In turn, in the reportive domain we may face the problem that some markers are used both for indicating propositional content of other people's utterances (hearsay) and for pointing at the manner of speech, at semiotic substitutes of speech or only at imagined thoughts incriminated by the speaker (quotative use). In such cases it may be difficult to decide "where these expressions belong", in particular when we engage ourselves in thorough usage-based accounts. Problems of this kind have been addressed in some of the language-specific descriptions included in this volume, however only casually, like scratches on the surface.

Fuzzy edges of category membership are, of course, nothing unusual, and they are no prerogative of lexical markers. All issues mentioned above arise with grammatical means as well; consider, for instance, debates about evidential extensions of MUST-auxiliaries, of future tenses or non-indicative moods, or about the delimitation of reportive marking from reported speech. However, lexical units (among them many function words and their etymological source expressions) are usually richer in semantic content and, therefore, more capable of expressing subtler shadows of meaning. This applies in particular to particles and sentence adverbs; it is thus not by accident that extensive lexicographic descriptions of them have been proposed (sometimes in parallel with parenthetical verbs like *I presume*, *I expect*).[65] The question however is which of

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64 This caveat can be derived from Plungian's (2001: 354) comment on the relationship between epistemic justification (= reference to information source) and epistemic support: "While an evidential supplement can always be seen in an epistemic marker, the opposite does not always hold: not all evidential markers are modal in that they do not all necessarily imply an epistemic judgment."

65 Compare, for instance, Helbig (1988), Wierzbicka (2006), Métrich and Faucher (2009), Grochowski et al. (2014).

the subtle differences in their often complex meanings are relevant when it comes to specifying information source. It may therefore be considered no less accidental that among many sentence adverbs and particles only few can be included into inventories of evidential markers (see Section 15.1.5).

By contrast, an account of lexical markers may become too narrow for one of two reasons. One reason lies in an argument saying that evidential functions are only side effects. For instance, reference to, say, hearsay can be regarded as subordinate to some other communicative purpose, e.g., of hedging or distancing (however defined), i.e., largely of interactive functions related to the manipulation of interlocutors' discourse moves, to rhetoric purposes, and the like. In such cases, the issue may be whether reference to information source is somehow included into some larger domain (see the discussion in Usonienė and Ruskan, this volume: Section 12.5), or whether the evidential function is just "parasitic" on a discourse function from which it arises via implicature (so that it can be cancelled). We might thus overlook expressions that do have some relevance for specifying information source, in particular if it is admitted that information source may be treated as a concomitant, or subdomain, of some larger conceptual domain.

Another, very different reason for an undue narrowing of the number of lexical evidentiality markers lies in a tendency of viewing function words (particles, complementizers, adpositions, etc.) primarily as instances of grammaticalization, instead of analyzing them as (new) lexical units, in the first place. New lexicalized units can become core components of constructions, which, in turn, can be conceived of as the proper units which undergo grammaticalization (or: in which grammaticalization takes place). We should however keep apart whole constructions from their constitutive parts, even if constructions often are not transparent sums of their parts. Otherwise, we might get into trouble when we have to define the relation of a particular unit (e.g., a particle) and its environment on which it operates. Such problems arise particularly with propositional modifiers (among which evidential markers belong), since propositions may take very different formats. See the argument proposed in Wiemer and Marín-Arrese (this volume: Section 1.2).

A separate issue is observations concerning genre-specific differences. This may relate to evidential extensions acquired by some broader class of markers (often subsumed under discourse markers) or of grammatical means (like non-indicative moods, complex predicates with auxiliaries, or participial constructions) under favorable conditions of discourse. For instance, certain texts or genres serve illocutionary purposes which require the confrontation of viewpoints, or an argument that needs to be grounded in the author's experience.

Such communicative requirements provoke an elaboration of the evidential background, usually together with other things, and this is why evidential functions are so often covered under other dimensions of propositional modification. However, increased use of linguistic means for such illocutionary purposes also creates a fertile soil for the emergence of markers whose primary functions are evidential. It was not among the aims of this volume to address these issues to any systematic extent, but similar discourse-driven and genre-related factors are able to "override" areal features of evidential means all along a lexicon-grammar cline.

15.3.2 Some tentative generalizations

Of course, these caveats will have to be taken into account in any language studied from the perspective of evidentiality, among others further European languages which would help complete the picture about evidentiality marking and, in particular, to understand in which respect Europe can be considered specific, or by which parameters it tends to divide into subareas and areal clines.

For the time being, I would like to point out that, regardless of where we want to place various expressions on the lexicon-grammar cline (for which see Wiemer and Marín-Arrese, this volume: Section 1.2), European languages are a good playground for studying how evidential strategies arise and may, or may not, develop core functions in the domain of evidentiality. Various means, from practically any segment of the lexicon-grammar cline, are "parasitically" employed as markers of evidential functions, and with some of them the association with the respective evidential function becomes so firmly associated that it can be considered a conventional part of its meaning. This holds true for both grammatical paradigms and for lexical units. Notably, grammatical markers organized in paradigms of the TAM-domain acquire evidential functions not as a result of grammaticalization, but because they are already highly entrenched in the grammar of their language. They just demonstrate a specific type of functional development, whose recurrent character (and areal distribution) requires an explanation.[66] However, the tendency (or expectability) of expressions (grams, constructions) to acquire evidential functions seems to depend, to a considerable extent, on the general "design" of the grammar of the respective

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[66] Calling this process 'secondary grammaticalization' would not be particularly telling, among other things because it is not obvious in which sense evidential extensions of TAM-paradigms might be 'more grammatical' than tense-aspect meanings or functions of mood.

language: whether it has an elaborated system of moods, or of auxiliaries, etc. By contrast, there does not seem to be any palpable correlation between differentiated inventories of function words and sentence adverbs, on the one hand, and a more pronounced employment of such word classes with evidential values, on the other (see below).

From this angle, we may understand why, for instance, Romance languages so consistently employ conditionals for evidential purposes, whereas languages in the eastern half of Europe lack evidential extensions of non-indicative moods. Romanian is an exception in areal terms (the conditional is used for evidential marking), but not in terms of genealogical affiliation (see Section 15.2.1). A similar point can be made for the (present and past) perfect, although its evidential extensions are attested only in the eastern peripheries of Europe, not in the west (they are lacking on the British Isles and the Iberian Peninsula);[67] see Section 15.2.2. They thus cluster areally and are less associated with genealogical groups as the conditional. Moreover, the evidential (in particular, reportive) extensions of the perfect as an areal feature are simultaneously favored by an employment of participles as independent predicates in the Baltic languages, Estonian and some other Finnic (usually minority) languages. The reason for this is straightforward: participles are the carriers of the lexical meaning of predicates in the (present and past) perfect. In addition, the rise of reportive marking by clauses with participles as predicate nuclei was most likely favored by a prominent use of such clauses as arguments of speech verbs (which then, as it were, could be dropped). These two factors – the former paradigmatic, the latter syntagmatic – jointly created favorable conditions for the establishment of reportive marking by independent participial predicates in the Baltic languages and Estonian.[68] The fact that these constructions are rare in contemporary speech and have to some extent become genre-specific signals, e.g. of journalistic discourse, is another issue (see Section 15.3.1). In this respect, the participial evidentials "join up" with the employment of conditionals in Romance languages or the subjunctive (*Konjunktiv I*) in German (see Section 15.2.1).

On this background, it is intriguing that in languages of the western half of Europe, particularly in English, no development of non-finite clausal comple-

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67 The areal pattern of the future perfect differs (for those languages which have it), but this is because its extension is basically an epistemic one (see Section 15.1.3).
68 Cf. Wälchli (2000) for the probably most convincing analysis. Another (primarily inferential) construction with uninflected participles (*-ta*) is restricted to Lithuanian and of different provenance with an origin in the southeastern corner of the Baltic language continuum (cf. Wiemer 2007b: 234–236).

ments into evidential marking beyond rather trivial strategies can be discerned. AcI/AcP-constructions (or: subject-to-object raising with bare infinitives or gerunds) are a prominent feature of English syntax (to a lesser extent of other Germanic languages), and among verbs that favor this kind of matrix coding we find perception verbs (e.g., *I saw her come*; *We hear them talking*).[69] These constructions are related to immediate perception and can be considered strategies of marking direct evidentiality, but they do not appear to have ever "moved farther" than that. It is as if they are in a deadlock from which they cannot go anywhere. The reason rather lies in the construction type itself than in the lexical meaning of the "matrix" verbs, because we observe a crosslinguistic pattern of perception verbs as parts of other syntactic environments in which they partake in the marking of indirect evidentiality. First of all, when finite complements attach to these verbs, they undergo a regular meaning shift into cognition and the entire sentence becomes associated to inferential evidentiality, with a flexible array of inference triggers (compare, e.g., *I see (that) you are tired* vs. *(that) you know what you are doing*). By analogy, HEAR-verbs become associated with reportivity (e.g., *I hear that you have won the prize*).

These are well-known facts (elaborated on also in the chapters of this volume). Less trivial is the observation that certain grammatical forms of perception verbs turn into evidential markers when their paradigm gets lost, or when they otherwise lose their relation to other paradigmatic forms. Such units sometimes end up as particles or other new minor, and weakly distinguished, word classes like predicatives, which can be distinguished in Europe's eastern half (see Sections 15.1.7.5, 15.2.5). Likewise, not so trivial is the observation that in Europe's other half, first of all in English, some units partaking in evidentiality marking have evolved from NcI-constructions (or: subject-to-subject raising) as the result of passivization or, more precisely, as a consequence of demoting the judging subject from a privileged syntactic position; compare, e.g., *Jane is supposed/believed/said/claimed... to have eaten all the cake*. In English this kind of argument demotion is realized with particular ease, and since verbs of cognition (epistemic attitudes) and of communication (speech acts) are involved in it, this productive process has led to the rise of (semi-)auxiliaries, provided we can argue for a monoclausal analysis. This would imply that in a sentence like *Anne is supposed to be playing tennis now* the string *supposed to be playing* (or gener-

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69 AcP-constructions are attested for Baltic, but in the contemporary languages they seem to have become even rarer than syntactically independent participle constructions as evidential markers (see Section 15.1.4). In Slavic languages, AcP-constructions have disappeared completely.

ally: *supposed to* + INF) is analyzed best as a complex predicate and not as a predicate (*is supposed*) with a clausal complement (*to be playing*), i.e., a biclausal structure.

In this respect, English NcI-constructions with "passivized" cognition/communication verbs differ not only from monoclausal SEEM-constructions and SEEM-constructions with clausal complements (see Section 15.1.4.1), but also from Lithuanian participles that demote the most agent-like argument, suppress its expression in the syntax and block agreement, so that from cognition/communication verbs we get forms like *numanoma/teigiama ... (kad P)* '(it) is believed/claimed ... (that P)', derived from *numany-ti*.INF 'guess', *teig-ti*.INF 'claim, assert' (Usonienė and Ruskan, this volume: Section 12.4). These participial forms are derived productively, but they are not subject to auxiliation: they do not license an agreeing subject and, if they occur with an infinitive (as, e.g., in *ketinama įkurdinti kavinę* '(is is) planned to establish a café' or *numatoma priimti galutinį sprendimą* '(it is) planned to take the final decision') the infinitive heads a clausal argument of the *ma*-form, i.e. in no way could we argue for a monoclausal analysis.[70]

When we now turn to propositional modifiers with word status, we must admit that it is not possible to detect any conceivable correlation between the degree with which sets of such expressions form an elaborate and frequently used subsystem of the language, on the one hand, and their more prominent association with evidential values, on the other. For instance, whether speakers of a language fancy the use of particles relevant for different levels of discourse or not, does not bear much on the amount of inferential or reportive particles. Thus, German, with its elaborate set of so-called modal particles, does not have a single reportive particle (unless one considers *angeblich* 'allegedly', which rather counts as a sentence adverb). Further eastwards, for languages like Polish, Russian and the Baltic languages, particles with evidential (inferential or reportive) functions have been pointed out, but for most of them the evidential function has been questioned, or it has been argued that it is but a side effect of some other, more central function. Yet other particles are clearly marginal in the sense that they are used either as quotative markers or as similatives (see the relevant chapters in this volume). However, some similative (or comparison) markers have become evidential (mainly reportive) complementizers,

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70 Only in one case has the *ma*-form yielded an auxiliary. This is the POSS modal *galima* 'can' derived from *galė-ti*.INF 'can', which is the inflected POSS modal. Both units are unrelated to evidentiality.

at least in emergent stages, and this tendency appears to be an areal feature of north-eastern Europe (see Section 15.2.6).

The case for sentence adverbs is again much more diffuse, but this confirms the point made here: sentence adverbs are not a specific category (or word class) for which languages differ, at least in Europe; so, if none of these languages stands out in terms of evidential functions found among sentence adverbs, this simply mirrors their comparative uniformity in this regard. In addition, if sentence adverbs encroach onto evidentiality they are mostly associated only to inferential functions, for most of them epistemic assessment remains the more prominent meaning component. Only few sentence adverbs have made it into the reportive domain, but those which have can be used without epistemic overtones.

As concerns ACCORDING TO-adpositions, they are likewise well-attested in European languages and, on first sight, do not differ much. However, differences become evident when we look closer at their properties in combination with complements of various formats, above all with clausal complements. These differences can partially be motivated from their etymologies. Like sentence adverbs, most ACCORDING TO-units do not derive from domains related to speech, but their semantic development into reportive evidentiality uniformly differs from the path of semantic changes on which sentence adverbs enter reportivity.

Abbreviations in glosses (not included in LGR)

FUTP	proximate future
GEN_PRON	generalized personal pronoun
MM	middle marker (= light reflexive marker)
NAGR	non-agreeing participle
PPA	active anteriority participle

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List of Contributors

Marta Carretero is Professor at the Complutense University, Madrid, where she is currently Head of the Department of English Studies: Linguistics and Literature. Her research concentrates on modality, evidentiality and evaluative language, including approaches to theoretical issues such as the concept and types of modality and the relation between modality and evidentiality, as well as descriptive work mainly on English and Spanish. She authors numerous articles and reviews in international journals such as *Journal of Pragmatics*, *Functions of Language* and *Languages in Contrast*, and also in Spanish journals. She is co-editor of the books *English Modality: Core, Periphery and Evidentiality* (De Gruyter Mouton, 2013), *Evidentiality Revisited: Cognitive Grammar, Functional and Discourse-Pragmatic Perspectives* (John Benjamins, 2017) and *Evidentiality and Modality in European Languages* (Peter Lang, 2017). She has directed the project titled *Evidentiality: A Discourse-Pragmatic Study of English and other European Languages* (EVIDISPRAG), and has continuously been a member of other projects funded by Spanish ministries. She chaired the 'International Conference on Evidentiality and Modality 2018 (ICEM'18)', and was managing editor of the academic journal *Atlantis* between 2006 and 2008. She currently lectures in semantics, pragmatics and functional linguistics, and has participated in many projects geared at innovation in lecturing.

Marta Carretero, Complutense University of Madrid, Department of English Studies, 28040 Madrid, Spain. E-mail: mcarrete@filol.ucm.es

Karlos Cid Abasolo, Associate Professor (area of expertise: Basque Philology) at Universidad Complutense de Madrid. He has a B A (degree in Hispanic Philology) from Universidad Autónoma de Madrid (1986) and holds a PhD in Linguistics from the same university (1994). Research lines (all of them related to the Basque language, on which he has published numerous research papers): Syntax (mainly relative clauses, the subject of his doctoral dissertation studied from a comparative perspective), Sociolinguistics, Translation, Onomastics, and Evidentiality. He is also a translator of Czech literature into Basque and a poet (he has authored two poetry books in Basque), and has served as an advisor to the Basque Government on language policy matters (2011–2014). Additionally, he is a member of the Editorial Advisory Board of the Department of Philology and Linguistics of UPV-EHU (University of the Basque Country) and has collaborated with the Basque-language public radio "Euskadi Irratia" since 2010.

Karlos Cid Abasolo, Complutense University of Madrid, Department of Romance Studies, 28040 Madrid, Spain. E-Mail: abasolo@ucm.es

Patrick Dendale is professor of French Language and French Linguistics at the University of Antwerp (Belgium). With his PhD (1991) on evidential marking in French (*Le marquage épistémique de l'énoncé: esquisse d'une théorie avec applications au français*), he was the first scholar to propose evidential analyses of French items (the reportive conditional and 'epistemic' *devoir*). He has further published a bibliography on French evidential markers (2014) and studies on a whole series of French items with an evidential function, grammatical and lexical (the conjectural future, the conjectural conditional, *visiblement, certainement, à ce que je vois, à vue d'œil, à vue de nez, selon, aux dires de* and on evidentiality in general. He (co-)edited two thematic issues, on French evidential markers (*Langue française* 1994) and on the notion of

evidentiality (*Journal of Pragmatics* 2001) and further collective volumes on modal verbs (2001) and on commitment (2008, 2009, 2011). He teaches a master course on evidential and epistemic marking in French (since 2010). Since 2021, he is handling editor of the *Journal of French Language Studies*.

Patrick Dendale, University of Antwerp, Department of Linguistics, Prinsstraat 13, 2600 Antwerp, Belgium. E-Mail: patrick.dendale@uantwerpen.be

Elena Domínguez Romero is Associate Professor of English Language and Linguistics at the Complutense University in Madrid. Her research interests include evidentiality and modality in media discourse. She has participated in the projects EUROEVIDMOD "Evidentiality and Modality in European Languages", EVIDISPRAG "Evidentiality: A Discourse-Pragmatic Study of English and Other European Languages", and STANCEDISC "Stance and Subjectivity in Discourse", all of them based on evidentiality, modality, stance, and subjectivity. She has co-edited two volumes in the field *Evidentiality and modality in European languages* (Peter Lang 2017) and *Thinking modally. English and contrastive studies on modality* (Cambridge Scholars 2015).

Elena Domínguez Romero, Complutense University of Madrid, Department of English Studies, Madrid, Spain. E-mail: elenadominguez@filol.ucm.es

Mercedes González Vázquez is Lecturer of Galician Language at the University of Vigo. She graduated in Spanish and Galician-Portuguese Philology from the University of Santiago de Compostela. Her doctoral research focused on semantics and modality and she has continued working on modal verbs and evidential expressions in Spanish and Galician. As a result of this work, the publication of her book *The sources of information: Typology, semantics and pragmatics of evidentiality* (2006) is to be highlighted. She has participated as researcher at the Spanish Corpus projects BDS and ARTHUS (University of Santiago de Compostela) and in the evidentiality projects "EUROEVIDMOD" and "EVIDISPRAG" (Complutense University in Madrid). She has been Teacher of Spanish as a foreign language at the Universities of Prague, Leeds and Vigo. She also held the position of Academic Coordinator at the Cervantes Institute in Leeds.

Mercedes González Vázquez, University of Vigo, Department of Galician Language and Latin Philology, Vigo, Spain. E-mail: mercedes@uvigo.es

Alexander Letuchiy (HSE University, Moscow) wrote his Candidate degree (PhD) dissertation on labile (ambitransitive) verbs, and his Doctoral dissertation focuses on complement clauses in Russian. His main research interests are complementation and complex sentence typology, transitivity, voice and valency change, evidentiality, Russian morphology. In the evidentiality domain, he works on evidential expression in European languages and beyond, the link between evidentiality and comparison, and between evidentiality and tense.

Alexander Letuchiy, National Research University Higher School of Economics, Moscow, Russia. E-mail: alexander.letuchiy@gmail.com

Juana Isabel Marín-Arrese is Professor of English Linguistics in the Department of English Studies: Linguistics and Literature at the UCM. She is a Fleming Award and Fulbright/Hays scholar. She holds an MA (University of Lancaster, UK, 1985), and a PhD with outstanding Doctoral Award (UCM, 1992). Her main research interests include the fields of discourse, se-

mantics, and pragmatics, with special interest in cognitive linguistic studies, critical discourse studies, and cross-linguistic studies. Her recent research focuses on stance, epistemicity and the expression of inter/subjectivity in discourse. She is currently PI in the research project STANCEDISC (PGC2018-095798-B-I00), and has been PI in the project EUROEVIDMOD (FFI2011-23181). She is co-editor of the collective volumes on evidentiality and modality: *Evidentiality revisited: Cognitive grammar, functional and discourse-pragmatic perspectives* (John Benjamins, 2017), *Evidentiality and modality in European languages* (Peter Lang, 2017), *Evidentiality and the semantics pragmatics interface* (*Belgian Journal of Linguistics* 29, Special issue, John Benjamins, 2015), and *English modality: Core, periphery and evidentiality* (De Gruyter Mouton, 2013). Her recent publications on these topics include papers in peer-reviewed journals and chapters in collective volumes (2021, *Journal of Pragmatics*; 2021, John Benjamins; 2020, Routledge; 2018, John Benjamins; 2017, John Benjamins; 2017, *Kalbotyra*; 2016, Peter Lang; 2016, Vervuert; 2015, *Belgian Journal of Linguistics*; 2015, *Critical Discourse Studies;* 2015, *Discourse Studies*; 2015, Routledge).

Juana I. Marín Arrese, Complutense University of Madrid, Department of English Studies, 28040 Madrid, Spain. E-Mail: juana@ucm.es

Victoria Martín de la Rosa is Associate Professor at the UCM Department of English Language and Linguistics. She has participated in the following research projects on evidentiality and modality (EUROEVIDMOD-FFI2011-23181, EVIDISPRAG-FFI2015-65474-P) and stance and subjectivity (STANCEDISC-PGC2018-095798-B-I00). She has co-edited two volumes in this field, *Thinking modally: English and contrastive studies on modality* (2015) and *Evidentiality and modality in European languages* (2017). Part of her recent research is based on the study of modality and evidentiality working with authentic corpora.

Victoria Martín de la Rosa, Complutense University of Madrid, Department of English Studies, Madrid, Spain. E-mail: mvmartin@ucm.es

Viviane de Moraes Abrahão (São Paulo, Brazil) holds a Master's in English Linguistics: New Applications and International Communication (Complutense University – Madrid). After teaching English and Portuguese in many contexts, she is currently involved in Inclusive Practices in Second Language Teaching, Inclusive Assessment, and Special Learning Differences. She is a certified Cambridge ESOL examiner, and TOEFL Test Administrator.

Viviane de Moraes Abrahão, ESIC Business & Marketing School, Language Department, Pozuelo de Alarcón, Madrid, Spain. E-mail: viviane.moraes@esic.university

Tanja Mortelmans is Professor of German Language and Linguistics at the University of Antwerp (Belgium). Her main research interests are the expression of modality (modal verbs, mood), evidentiality, (progressive) aspect and (future) tense in German, Dutch and English, mainly from a cognitive-functional and contrastive perspective. Grammaticalization phenomena, (inter)subjectification and grounding are recurrent topics in her research. Her publications include a monograph on functional grammar theories (together with Elena Smirnova) and a number of research articles and reviews in journals and collective volumes.

Tanja Mortelmans, University of Antwerp, Department of Linguistics (Grammar and Pragmatics), Prinsstraat 13, 2000 Antwerp, Belgium. E-Mail: tanja.mortelmans@uantwerpen.be

Anna Ruskan is Associate Professor at the Department of English Philology at Vilnius University. Her research focuses on stance, evidentiality, epistemic modality, corpus linguistics, contrastive linguistics, academic discourse and media discourse. She has participated in national and international projects related to stance, modality and evidentiality (i.e. *Realizations of modality and evidentiality in Lithuanian*; *Evidentiality: A discourse-pragmatic study of English and other European languages*; *Stance and subjectivity in discourse*: *Towards an integrated framework for the analysis of epistemicity, effectivity, evaluation and inter/subjectivity from a critical discourse perspective*). Her publications include articles on epistemic qualifications, stance, and contrastive linguistics.

Anna Ruskan, Vilnius University, Department of English Philology, Universiteto st. 5, 01513 Vilnius, Lithuania. E-mail: anna.ruskan@flf.vu.lt

Andreu Sentí is Associate Professor of Catalan linguistics at the University of València. He received his PhD in Catalan linguistics from the University of Alacant with an extraordinary mention in 2013. His research interests range from semantic change, historical linguistics, grammaticalization, dialectology and language learning. He has had numerous papers on modal and evidential constructions in Catalan language published. He is currently coordinating the elaboration of the *Corpus Parlars*, a spoken and informal corpus for Valencian Catalan.

Andreu Sentí, University of València, Department of Catalan Studies, Avinguda de Blasco Ibáñez 32, 46010 València, Spain. E-Mail: andreu.senti@uv.es

Katerina Stathi is Professor of German linguistics at the University of Münster, Germany. She studied Greek Philology at the University of Athens, and later General Linguistics, Comparative Philology, and Phonetics at the University of Cologne in Germany. Her research interests are in the fields of lexical semantics, evidentiality, grammaticalization, historical linguistics, corpus linguistics, phraseology, and linguistic typology. Her research includes contributions to both German and Greek linguistics.

Katerina Stathi, University of Münster (WWU), German Studies, Schlossplatz 34, 48143 Münster, Germany. E-mail: stathi@uni-muenster.de

Anna Socka is Assistant Professor (adjunct) and head of the Department of German Language and Translation Studies at the Institute of German Philology, University of Gdansk. She received her PhD at the University of Cologne with a doctoral dissertation about the linguistics of free indirect discourse in German and Polish. Currently her research interests focus on evidentiality, especially reportativity. She has recently been involved in research projects concerning the relationship between modality, evidentiality and discourse. Her latest publication is *Satzadverbien und Modalverben als Marker der Reportativität im Deutschen und Polnischen* (Berlin et al.: Lang 2021).

Anna Socka, University of Gdańsk, Institute of German Philology, Wita Stwosza 51, 80-308 Gdańsk, Poland. E-mail. anna.socka@ug.edu.pl

Aurelija Usonienė (Professor of Linguistics at Vilnius University, Lithuania) has carried out research and published articles on contrastive corpus-based studies the focus of which is on epistemicity (epistemic modality and evidentiality), verb complementation, adverbialization, discourse markers, and syntax-semantics interface. Apart from lecturing, research, supervision of doctoral theses and administrative activities at Vilnius University she has acted as a reviewer for international periodical journals: Languages in Contrast, Journal of Pragmatics, Folia Linguistica and she is an editor of the journal of linguistics *Kalbotyra*. A number of successful research projects have been designed and conducted under her coordination (compilation of *Corpus Academicum Lithuanicum* – CorALit, *Realizations and meaning of author stance in the Lithuanian academic discourse, Non-grammatical evidentiality in the Baltic languages: content, form and functions, Modality and evidentiality in the Lithuanian language,* etc.). She was a team member of the international research project devoted to the expression of evidentiality and modality in English and other European languages: Cross-linguistic perspectives (EUROEVIDMOD) and **EVIDISPRAG:** *Evidentiality: A discourse-pragmatic study of English and other European languages* (Universidad Complutense de Madrid).

Aurelija Usonienė, Vilnius University, Department of English Philology, Universiteto st. 5, LT-01513 Vilnius, Lithuania. E-mail: aurelia@usonis.lt

Björn Wiemer received his PhD in Slavic and general linguistics in 1996 (Hamburg University). He worked as research assistant at the chair of Slavic Languages at Constance University from 1996 to 2003. Subsequent to his postdoctoral thesis, which was devoted to grammaticalization (2002, venia for Slavic and Baltic linguistics) he continued doing research and teaching at Constance University until 2007, when he was appointed to the chair of Slavic Linguistics at Mainz University. His main topics of interest are aspect and other verbal categories, voice related phenomena, evidentiality and modality, clausal complementation, also from a diachronic perspective and in non-standard varieties, language contact and areal linguistics. He has contributed to all mentioned domains with publications both on synchronic and diachronic issues. He has (co)edited 14 volumes and written three books on Slavic, Baltic and general linguistics.

Björn Wiemer, Johannes-Gutenberg-University of Mainz, Institute of Slavistics, Jakob-Welder-Weg 18, 55099 Mainz, Germany. E-mail: wiemerb@uni-mainz.de

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