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Norwegian Discourse Ellipsis

Clausal architecture and licensing conditions

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Volume 2

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by Mari Nygård

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Clausal architecture and licensing conditions

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List of abbreviations

A′	bar
AP	Adjective Phrase
AdvP	Adverbial Phrase
AGR	Agreement
AUX	Auxiliary
CLn	Context Linker
COMP	Complementizer
CP	Complementizer Phrase
CS	Conceptual Structure
DECL	Declarative mood
DM	Distributed Morphology
DP	Determiner Phrase
ELEC	Empty Left Edge Condition
E-SEMANTICS	Externalized semantics
EC	empty category
FEM	Feminine gender
FIN	Finite
GB	Government and Binding
G-SEMANTIC	Grammar semantic
IMP	Imperative mood
INFL	Inflection
INTERROG	Interrogative mood
IP	Inflectional Phrase
I-SEMANTICS	Internalized semantics
LF	Logical Form
MASC	Masculine gender
MP	Minimalist Program
N	neuter
NC	null constant
NEUT	Neuter gender
NoTa	Norwegian Speech Corpus – the Oslo part
NDC	Nordic Dialect Corpus
NP	Nominal Phrase
NUCL	Nucleus
OBJ	Object
OEA	Obligatory Element Absent

OEP	Obligatory Element Present
OP	Operator
P & P	Principles and Parameters
PERF/PERFP	Perfective/Perfective Phrase
PF	Phonetic Form
PHI VAL	Valued phi feature
PL	Plural
PP	Prepositional Phrase
PRED	Predicate
PrP	Predicational Phrase
PS RULES	Phrase Structure rules
REFL	Reflexive
SG	Singular
S-SEMANTIC	Situational semantics
SPEC	Specifier
SUBJ	Subject
T	Trace
Top	Topic
TP	Tense Phrase
uF	Unvalued feature
uphi	Unvalued phi-feature
vP	Little vP/little verb phrase
VP	Verb Phrase
V1	Verb first
V2	Verb second
ø	Phonetically null
¤	Slot for insertion
λ_a	Logophoric agent
λ_p	Logophoric patient

CHAPTER 1

Introduction

1.1 Characteristics of spontaneous speech

Speech is a primary form of linguistic behaviour: it is through speech that children learn their mother tongue, and being currently spoken is one criterion for a living language. A study of spoken dialogues can therefore lead to fundamental insights about language use and linguistic structure since linguistic performance presupposes a mastery of structures (Lindström 2008: 26). Thus, it has often been stated that spoken data should constitute the empirical base for linguistic theories. In practice, this has not been the case, however. Traditional grammars are generally based on idealized written language. In antiquity, grammar was related to the art of writing and most theories of grammar uphold this written bias.

However, since spontaneous speech is the primary linguistic medium, the specific features of this register need to be described and explained, both empirically and theoretically. This book is a contribution to that.

The spoken register represents a challenge to conventional syntactic analysis (Teleman 1983, Cheshire 2005). In several aspects, it is different from the more predictable written language. Spoken dialogues take place in real time, there is no time lag between production and reception, and the speakers may rephrase utterances while speaking. As a consequence, sentence boundaries are often unclear, and there are typically overlapping speech, interruptions and grammatically incomplete utterances.[1]

It is important to distinguish between spoken language (as distinct from written) and spoken dialogues (as distinct from monologues and recitations). Whereas the term *spoken language* points to the medium of linguistic expression, *spoken*

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1. The empirical focus of this book is on the general characteristics of spontaneous speech, not on dialectal variation among spoken varieties. This difference is discussed in Sandøy (1994), who defines *spoken language* as distinct from written language. The relevant distinction is then between the oral medium and the written medium. *Dialects*, on the other hand, are defined as geographical or social varieties and will not be discussed. Note also that in many linguistic societies, there is a clear distinction between colloquial spoken and standard spoken language, which is likely to be more influenced by the norms of written language. In Norwegian, this distinction (colloquial vs. standard) is not significant. Hence, even though discourse ellipsis may be more frequent in informal contexts, it is not limited to the colloquial register.

dialogue focuses on the contextual setting. This study focuses on spoken dialogues[2] in which many things are implicit, a feature that makes dialogues feel fragmented.

I investigate on a feature frequently attested in spoken dialogues, situational ellipsis (Leech 2000) or discourse ellipsis. The two terms are equivalent. For the sake of consistency, I use *discourse ellipsis*. They are exemplified in the examples that follow: (1) is an omitted referential subject, (2) an omitted expletive subject, (3) an omitted object, and (4) an omitted subject and auxiliary verb. NoTa stands for Norwegian Speech Corpus – the Oslo part.

(1) ~~Jeg~~ husker litt fra jeg var åtte. NoTa
~~I~~ remember some from I was eight
'I remember a little bit from the time I was eight.'

(2) ~~Det~~ var én som hadde kjørt forb … over en rev. NoTa
~~it~~ was one that had driven past … over a fox
'There was one who had hit a fox.'

(3) ~~Det~~ skal jeg òg. NoTa
~~that~~ shall I too
'I am going to do that, too.'

(4) ~~Jeg~~ ~~har~~ vokst opp i et stort stort hus. NoTa
~~I~~ ~~have~~ grown up in a big big house
'I grew up in a big, big house.'

Throughout the book, the strikethrough indicates that the element is elided. It is not always possible to specify which elements have been elided. The elements that are assumed to be silent are the most probable candidates based on contextual information.

The purpose of this work is to develop a grammar of discourse ellipsis in spoken Norwegian.[3] Therefore, the following question arises: is it necessary to establish a separate grammar for this register, or is the existing grammar developed for idealized/written language suitable? I propose that, despite the seemingly fragmentary nature of spoken language, the underlying syntax is the same as for written or non-elliptical language. Of course, the licensing conditions for elliptical data are not necessarily the same as for non-elliptical data. However, I believe that it is a mistake

2. Although formal, generative linguistics has been working with spoken data, e.g., eliciting acceptability judgments from informants, very little formal linguistic work has been done on spoken dialogues.

3. The empirical scope of this study is restricted to data from spoken Norwegian. It would be interesting to look at other languages and compare the restrictions on ellipses. First, however, it is necessary to provide a fairly comprehensive overview of discourse ellipsis in Norwegian as no work has been done on it.

to explain these differences by pointing to different grammars. It is preferable to specify at what point in the linguistic process these constraints come to differ.

Two major questions need to be addressed. First, what are the characteristics of discourse ellipses? Are they truncated structures or are they best analysed as underlyingly full-fledged sentence structures? Second, why are discourse ellipses possible? What are their licensing conditions? Despite the fact that meaning-bearing constituents may be absent, discourse ellipses are easily parsed and most often do not create ambiguity. Why is this so? To answer this, we need to investigate both structural and semantic/pragmatic conditions.

In this introductory chapter, I establish the empirical focus for the study. I briefly present fragment types and show how they differ from discourse ellipsis and why they are not included in the study. I also discuss whether the grammar of spontaneous speech is equal to the grammar of idealized written language or whether they are governed by different systems. Following this, I discuss the value of performance data and the distinction between I-language and E-language as well as between grammaticality and acceptability. This leads me to a comparison of different methods of data collection and a discussion of their advantages and disadvantages for this study. Finally, I show examples of related elliptical data from selected written registers.

1.2 Types of fragments and ellipses

Theoretical linguistics focuses on the correspondence between sound or signs and meaning. Chomsky (1995: 2; 2000b: 90–91) calls this the "double interface" property of language: cognitive systems interact with two external systems: articulatory-perceptual (A-P) and conceptual-intentional (C-I). In ellipsis, this correspondence appears to break down. Ellipses are fragmented utterances even though they are full-fledged semantic propositions. Given Saussure's claim that a sign is an association of form with meaning, ellipsis is surprising: there is meaning without form, at least at first sight. Ellipsis can generally be defined as the non-expression of sentence elements:

> **ellipsis** Any construction in which some material which is required for semantic interpretation and which could have been overtly present is absent but immediately recoverable from the linguistic context, particularly when that material is overtly present elsewhere in the sentence. (Trask 1993: 89)

> Elliptical processes capitalize on the redundancy of certain kinds of information in certain contexts, and permit an economy of expression by omitting the linguistic structures that would otherwise be required to express this information. (Merchant 2001: 1)

> **ellipsis** The omission of one or more words that are obviously understood but that must be supplied to make a construction grammatically complete.
> (Merriam-Webster Online Dictionary, http://www.merriam-webster.com/dictionary[4])

Ellipses and fragments come in various kinds, most of which will not be discussed in this book. In this section, I will discuss three types of fragments left out of further consideration:

1. Structural non-discourse triggered ellipses
2. Performance governed apocopes
3. Freestanding constituents

1.2.1 Structural ellipses

These are ellipses that are not discourse triggered, but also occur in the written standard.[5] Merchant (2013) lists the following sub-categories:

Sluicing

(5) John can play something, but I don't know what ~~John can play~~.

VP-ellipsis

(6) John can play the guitar; Mary can ~~play the guitar~~, too.

NP-ellipsis (or N′-ellipsis)

(7) John can play five instruments, and Mary can play six ~~instruments~~.

Gapping

(8) John can play the guitar, and Mary ~~can play~~ the violin.

(9) John can play the guitar better than Mary ~~can play~~ the violin.

Stripping/bare argument ellipsis

(10) John can play the guitar, {and Mary, too/and Mary as well/but not Mary}.

(11) John can play the guitar better than Mary.

Structural ellipses differ from discourse ellipses in several ways. Firstly, the occurrence of structural ellipses is not register-specific. They belong to core grammar and are found in both spoken and written texts (see Merchant 2001; Fox & Lasnik 2003;

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4. Accessed September 2012.

5. In addition, Merchant includes what he labels *fragment answers:*

   Q: Who can play the guitar?
   A: (Not) John

Unlike the other categories, it is unclear whether this ellipsis type has clausal structure. I will come back to fragments of this form shortly.

Lasnik 2005, 2010, among others). Secondly, in discourse ellipses, the omission is optional. A corresponding non-elliptical version is acceptable and in most cases would yield the same reading as the elliptical version.[6] In structural ellipses, on the other hand, the meaning of the elliptical and the non-elliptical variants is not necessarily the same, as (12) and (13) from Hendriks & Spenader (2005) illustrate;[7] (14) illustrates what happens in discourse ellipsis:

(12) A fish walked and a fish talked. *(2 different fish)*

(13) A fish walked and __ talked. *(The same fish)*

(14) Jeg/~~Jeg~~ driver og prøver å komme på når jeg sist var på
I/~~I~~ keep on and try to come on when I last was on
kino. NoTa
cinema
'I am trying to figure out when was the last time I went to the cinema.'
('Jeg' refers to the same person in both cases)

In structural ellipses, a non-elliptical variant is sometimes ungrammatical, contrary to what is the case for discourse ellipses. In some cases, ellipses are the only way to express a certain meaning; the corresponding non-elliptical form would violate syntactic or semantic constraints. Merchant (2001) gives the following example of *repair by ellipsis*:

(15) They want to hire someone who speaks a Balkan language but I don't remember which (*Balkan language they want to hire someone who speaks).

Finally, in structural ellipses, the semantic content of the elided constituents is recoverable sentence-internally, as in (5), repeated here as (16); in discourse ellipses, as in (17), a sentence-internal antecedent is often not found:

(16) John can play something, but I don't know what (John can play).

(17) (pointing to a poster of a movie):
~~Har~~ ~~du~~ sett den, eller?
~~have~~ ~~you~~ seen it or
'Have you seen it, or what?'

---

6. Discourse ellipses may give rise to several different interpretations not available for the corresponding non-elliptical variants, in which one overtly specified subject must be chosen. The ellipsis is ambiguous, but disambiguated by the context: ~~*Jeg/han/hun/vi*~~ *var på kino i går.* 'I/He/She was at the cinema yesterday.'

7. Some might argue that (13) is only an example of coordination, and thus not an ellipsis. Yet the illustrative point remains.

As we see, there are fundamental differences between structural and discourse ellipses. The licensing conditions of structural ellipsis will not be discussed further, as this is in itself a vast area of research (see e.g. Johnson 2001, Merchant 2001, among many others). However, certain overarching theoretical questions are still relevant for both groups:

- The structure question: Is there uninstantiated silent syntactic structure in ellipsis sites?
- The identity question: What is the relationship between the understood material in an ellipsis and its antecedent?
- The licensing question: Which heads, positions and structures allow for ellipsis, and what are the locality conditions on the relationship between these structures and ellipsis?

While these questions are relevant for both types of ellipses, the answers are not identical.

1.2.2 Performance governed apocopes in spoken language

In this section, I briefly discuss certain types of constructions typical of spoken discourse and comparatively rare in written or idealized registers. These strings cannot be categorized as discourse ellipsis proper and are therefore excluded from my study.

The TAUS project (Hanssen et al. 1978), the largest project to date investigating spoken Norwegian, studied the properties of spontaneous speech. It had a sociolinguistic focus; syntactic properties were not investigated in depth. A parallel project, *Talsyntax,* was carried out for Swedish in the 1960s and '70s. Other accounts of the grammar of spoken language are found in Blanche-Benveniste (1997) for French, Miller & Weinert (1998), Nygård (2004), Miller (2006), and Johannessen and Jørgensen (2006) for Norwegian.

The TAUS project targeted constructions that deviated from the grammar of idealized Norwegian. These were labelled 'error-types'. Although it was emphasized that this term was intended as descriptive, it does inevitably imply that spoken language contains imperfections, relative to the written register.

The examples in (18)–(23) are based on the categorization in Hanssen et al. (1978) and Johannessen & Jørgensen (2006). These data are taken from Johannessen & Jørgensen (2006), who collected them from the NoTa corpus. The English terms are also taken from Johannessen & Jørgensen (2006), who translated them from the 'error-types' in TAUS, and labelled them *rhetoric types*, since they had been recognized since antiquity, when they gave a sense of dialogue to otherwise monotonous monologues. The constructions of interest are marked with an underscore in the examples.

Lexical epanorthosis or lexical corrections, as in (18), are corrections of one or more words without rupturing the structure of the sentence:

(18) det kommer fra jeg kjøpte det i Devil's Lake North Dakota.
it comes from I bought it in Devil's Lake North Dakota
'It comes from, or rather I bought it in, Devil's Lake North Dakota.'

In *syntactic epanorthosis* or syntactic corrections, the structure of the sentence is not completed. The speaker starts out with one syntactic construction, but changes it in the course of the utterance:

(19) ja hvis jeg flyt- la oss si at vi fl- jeg f- bodde der
yes if I moved let us say that we moved I moved lived there
fra jeg gikk i åttende.
from I went in the 8th
'Yes, let us say that we moved – I lived – there from when I was in the 8th grade.'

Anacoluthons are telescopic constructions in which two sentences melt into one, such that one constituent is common to both. They are syntactic blends: the common element is a constituent of both sentences, yet it can fill a different syntactic function in each:

(20) Bogstadveien Hegdehaugsveien er det egentlig ganske
The Bogstad Road The Hegdehaug Road is it actually quite
forferdelig bortsett fra et par steder så er det kun gutter
horrible except from at a few places are there only blokes
i blå skjorte og mørke bukser.
in blue shirt and dark trousers.
'In Bogstadveien or Hegdehaugsveien it is actually quite horrible apart from at a few places there are only blokes with blue shirts and dark trousers.'

Epizeuxis is a repetition of elements. Structurally, it could be considered parallel to lexical epanorthosis, since both involve lexical doubling:

(21) følte du at du måtte forandre deg sjøl da eller eller
felt you that you must change yourself then or or
h-holdt du på…
w-were you at
'Did you feel that you had to change yourself or or w- were you…'

Syntactic apocope occurs when an utterance lacks one or more obligatory parts that, if present, would occur sentence-finally. According to Hanssen (1983), this is the most widespread irregularity within the spoken register. Several subtypes can be distinguished. A speaker may be interrupted by another speaker, who may introduce a new construction or complete the one initiated by the first speaker. Finally, a

speaker can interrupt himself with a new construction before finishing the previous one, as illustrated in (22):

(22) følte du at du måtte forandre deg sjøl da eller eller
felt you that you must change yourself then or or
h- holdt du på …
d- did you …
'Did you feel that you had to change or were you …'

False starts are a subtype of apocope, characterized by a "lack of continuation of an utterance" (Johannessen and Jørgensen 2006: 6). Often, this occurs after only one word:

(23) nei da vi har det bra vi så…
oh no we have it good we so
'Oh no, we have a very good time, so…'

Both syntactic apocope and discourse ellipsis involve the omission of constituents.[8] However, in apocope, elements are omitted sentence-finally, whereas discourse ellipses are sentence initial or sentence medial omissions (Hanssen et al. 1978, Johannessen & Jørgensen 2006). Moreover, in apocope the omission of elements is more random. In discourse ellipses, the omission obeys certain structural patterns.

To sum up, discourse ellipses obey systematic restrictions, while the other 'error-types' are governed solely by performance factors. Therefore, they will not be discussed any further.

1.2.3 Freestanding constituents

Freestanding constituents do not seem to have a clausal structure, but still express full-fledged propositions and function as independent utterances. They may appear similar to discourse ellipses, but I argue they are not of the same type.

(24) New shoes?

(25) (Rude dinner guest): 'Salt!'

This type of fragment is often mentioned in discussions of ellipsis. The question is: Are these ellipses in a technical sense? And, if they are, what are they ellipses of? Wittgenstein (1953: §2) discusses this issue and gives the following illustrative example of a conversation between a builder A and an assistant B:

---

8. The category of *Ellipsis* in the TAUS project is also discussed in Wiggen (1986). Also Johannessen & Jørgensen (2006) mention the category *Ellipsis*, which is parallel to the discourse ellipses discussed in this study. The missing constituents in ellipses are elided either sentence-initially or sentence-medially.

> A is building with building-stones: there are blocks, pillars, slabs and beams. B has to pass the stones, and that in the order in which A needs them. For this purpose they use a language consisting of the words "block", "pillar", "slab", "beam". A calls them out; – B brings the stone which he has learnt to bring at such-and-such a call.

The relevant issue here is whether the call "Slab!" –intended as an order to bring the slab – should be defined as a sentence or a word. Wittgenstein says that "Slab!" is a word and also a sentence. When it is a word, it does not have the same meaning as the word '*slab*' in ordinary language. In other words, "Slab!" as an order conveys additional meaning compared to cases where the word is used as a constituent in a sentence. If "Slab!" were considered a sentence, it would be a degenerate one, a shortened form of "Bring me a slab!" (Wittgenstein 1953).

The fact that "Slab!" functions as a call, and thus represents a full-fledged semantic proposition, is in my opinion not debatable. The problem is whether to assume that the word is technically an underlying sentence with a full syntactic structure at some linguistic level, or whether an enrichment process towards a full proposition happens at a purely conceptual or pragmatic level of the linguistic derivation. The following passage from Wittgenstein (1953: §2) goes to the heart of the matter:

> Because if you shout "Slab!" you really mean: "Bring me a slab". – But how do you do this: how do you *mean that* while you *say* "Slab!"? Do you say the unshortened sentence to yourself? And why should I translate the call "Slab!" into a different expression in order to say what someone means by it? (…) But when I call "Slab!", then what I want is, *that he should bring me a slab!* – Certainly, but does 'wanting this' consist in thinking in some form or other a different sentence from the one you utter?

Freestanding constituents do not appear to relate to the sentence structurally.[9] Contrary to discourse ellipses, they do not display any *connectivity effects*, grammatical dependencies similar to those in non-elliptical sentences (Merchant 2004). Such effects could give information about the structural content of the ellipsis site and would consequently motivate a sentence analysis of the fragments. Hence, freestanding constituents demonstrate the necessity to distinguish between different levels of language processing. Structurally, they are probably non-clausal phrases (XPs), and hence not ellipses of sentences, linguistically speaking. Still, they may be described as ellipses at a conceptual level since the pragmatically enriched meaning of the XP must be interpreted as a full proposition.

Fragments of this type are currently under much discussion. Merchant (2010) distinguishes between syntactic, semantic and pragmatic ellipses, and Stainton (2006) argues that such utterances *should* be ascribed a full sentential structure

9. In this respect, the freestanding constituents also stand in contrast to most of the 'error types' of spontaneous speech discussed in Section 1.2.2 and the structural ellipsis types discussed in 1.2.1.

because some do display certain connectivity effects. These constructions are also discussed in Stanley (2000), Eluguardo & Stainton (2005), Progovac et al. (2006). The theoretical problems related to this data type are significant. I will leave aside the question of whether freestanding phrases are underlying sentences, noting the fundamental theoretical importance of the issue.

1.2.4 Discourse ellipses

Having excluded structural ellipses, performance governed apocopes, freestanding constituents and similar constructions from written registers from my study, I am left with discourse ellipses proper, as exemplified in (1)–(4), repeated in (26)–(29):

Omitted referential subject

(26) ~~Jeg~~ husker litt fra jeg var åtte. NoTa
~~I~~ remember some from I was eight
'I remember a little bit from the time I was eight.'

Omitted expletive subject

(27) ~~Det~~ var én som hadde kjørt forb… over en rev. NoTa
~~it~~ was one that had driven past… over a fox
'There was someone who had hit a fox.'

Omitted initial object

(28) ~~Det~~ skal jeg òg. NoTa
~~that~~ shall I too
'I am going to do that, too.'

Omitted subject and auxiliary/copula verb

(29) ~~Jeg~~ ~~har~~ vokst opp i et stort stort hus. NoTa
~~I~~ ~~have~~ grown up in a big big house.
'I grew up in a big, big house.'

As already noted, in discourse ellipses, elements are missing sentence-initially and occasionally sentence-medially. The meaning of the missing elements is most often fully recoverable and the ellipses can be paraphrased as full-fledged sentences. In this book, I will focus primarily on the ellipses that involve the left edge of the clause, i.e. the sentence-initial types. Is will only discuss medial ellipses briefly at relevant points in the analysis.

Many of the discourse ellipses display *connectivity effects*, i.e. grammatical dependencies that involve silent elements in the ellipsis site. These effects indicate that the elided item is syntactically active and that these fragments should be analysed as full sentences. The elided items are phonologically silent, yet their morphological and syntactic features are at work as in a full fledged sentence. Illustrative examples

of connectivity effects are anaphors pointing back to non-realized subjects and main verbs requiring a specific auxiliary, where this auxiliary is null. In (30), the anaphor *meg* requires the presence of a silent 1st person singular subject. The ungrammaticality of (31) underlines the same point: there is a mismatch between the silent subject (1st person singular) and the anaphor (2nd person singular). In (32), the perfective participle *kjørt* requires the presence of a silent perfective auxiliary, present or past. The elements displaying connectivity effects are underlined in the examples:

(30) ~~Jeg~~ kan tenke meg det. NoTa
~~I~~ can think me$_{\text{REFL}}$ that
'I can imagine that.'

(31) *~~Jeg~~ kan tenke deg det.
~~I~~ can think you$_{\text{REFL}}$ that

(32) ~~Har/Hadde~~ ~~du~~ kjørt mye skuter i påska? NDC
~~have/had~~ ~~you~~ driven much scooter in Easter
'Have/Had you been driving scooter a lot during Easter?'

Connectivity effects do not appear in all instances of discourse ellipsis. One reason for this is that Norwegian has no visible subject–verb agreement and many other forms of visible agreement. Still, the connectivity effects in the examples support the assumption of full sentence structures even for the cases where these effects are not visible. Hence, connectivity effects are important diagnostics for discourse ellipsis. In fact, the attempt to analyse ellipses often boils down to looking for signs of the elided elements in the instantiated part of the utterance:

> Detecting and arguing for such 'missing' structures is analogous to searching for a black hole: one can tell it's there only by its effects on surrounding material. The logic of the hunt for elided structure is similar. (Merchant 2013: 8)

Thus, connectivity effects suggest that discourse ellipses have full-fledged syntactic structures, an idea that I will explore further in the chapters that follow.

1.2.5 Elliptical data from written registers

Discourse ellipsis is a feature of spontaneous speech. Yet, as emphasized by Teleman (1983), it is naïve to assume that written texts are characterized by monologue, whereas spoken texts are dialogues. There are several hybrid categories. Prepared spoken material such as lectures, sermons and recitations may have more in common with written than with spoken language and will therefore not be of any interest to this study. On the other hand, the language in certain written media, such as social media, shares features with spoken dialogues. Data such as these

will therefore be included when theoretically relevant, but will not be analysed systematically. Thus, the findings of this study may be applicable to the structural description of multiple registers too.

Firstly, the omission of topicalized subjects is very frequent in several registers such as diaries, as discussed by Haegeman (1990, 1997), letters, post cards and written interviews. In all these registers, the linguistic subject is contextually salient and can easily be omitted, probably because of that. Also, discourse ellipses are often attested in spoken dialogues in novels. These ellipses are mainly of the same types as in real spontaneous speech, probably because this register seeks to imitate speech. Discourse ellipses also occur frequently in SMS, e-mails, online chats and Facebook conversations. These media are often said to be semi-oral, which explains the quality of the data (Greenfield and Subrahmanyam 2003; Freiermuth 2011). Note the ellipses in the following authentic text message:

(33) ~~Jeg~~ ~~er~~ ferdig nå. ~~Jeg~~ kjører straks. ~~Jeg~~ ~~er~~ hjemme om 10.
~~I~~ ~~am~~ done now ~~I~~ drive immediately ~~I~~ ~~am~~ home in 10
'I'm done now. I'm getting in the car very soon. I will be home in 10.'

The registers mentioned so far display similar characteristics to discourse ellipses in spontaneous speech. The fragment types are slightly different in two registers: headlines and recipes. Headlines are discussed in Straumann (1935) for English; in Dyrland (1973), Gynnild (1988), Fjeldstad (2000) for Norwegian; and in Vinet (1993) and Sullet-Nylander (1998) for French. Particularly interesting are the economy restrictions imposed by the limited space. Norwegian headline fragments typically fall into one of three groups (Fjeldstad 2000): (i) subjects omitted from active sentences (34),[10] (ii) omitted subjects and auxiliaries from passive sentences (35), and (iii) omitted non sentence-initial copula verbs (36). The first group is parallel to what we see in discourse ellipses, whereas the other two groups are not.

(34) Mener Tyskland har en helt spesiell egenskap.[11]
think Germany has a very special quality
'Believes that Germany has a very special quality.'

(35) Intervjuet av Eia.[12]
interviewed by Eia
'Interviewed by Eia.'

10. (34) is posted in an online newspaper next to a photo of the Norwegian minister for foreign affairs and illustrates how a photo of the intended subject can replace the linguistic subject.

11. VG online 23.06.2012: http://www.vg.no/sport/fotball/em/2012/artikkel.php?artid=10066174

12. Aftenposten, 27.09.2009: http://www.aftenposten.no/meninger/debatt/article3290112.ece#.T-bVU5EWJXg

(36) Norsk skuespiller etterlyst i Bolovia.[13]
Norwegian actor wanted in Bolivia
'Norwegian actor wanted in Bolivia.'

Elliptical headlines can be ambiguous if it is not clear what the underlying sentence is:

(37) Stoppet med falske skilt.[14]
stoppet with false plates
'Stoppet with false plates.'

Contextual information determines whether this is (a) an underlying active clause with an omitted subject, or (b) an underlying passive where both the subject and the auxiliary are unrealized. We need contextual input to decide whether the verb *stoppet* is a preterit or a participle form syncretism. Of course, the headline is much more newsworthy in the b-version:

a. (Han) stoppet med falske bilskilt.
(he) stopped with false license plates
b. (Han) (ble) stoppet med falske bilskilt.
(he was) stopped with false license plates

Recipes display ellipses of a different type, as discussed in Haegeman (1987); the complements of the verbs, i.e., the direct objects, are often omitted:

(38) Kutt (…) i biter. Ha (…) i kasserolle […]. Kok opp (…), og
Cut (…) in pieces. Put (…) in pan […]. Make (…) boil, and
la (…) koke i femten minutter.
let (…) boil for fifteen minutes.

Finally, Janda (1985) discusses *note-taking English*[15] and Barton (1998) gives an account of *telegraphese*, the language used in telegrams. In the latter, the economy restrictions are strict since payment is per symbol. Typical for telegraphese is the deletion of first person subjects and functional categories.[16]

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13. VG online 28.05.2008: http://www.vg.no/nyheter/utenriks/artikkel.php?artid=511071

14. rb.no, 18.02.2011: http://www.rb.no/lokale_nyheter/article5496214.ece

15. Major characteristics of this register are shortening of words by abbreviations and symbols, omission of finite copula verbs, omission of articles (definite and indefinite), omission of (unstressed) pronouns, in particular personal pronouns, omission of finite 'do', omission of whole phrases, nominalization of verbs and combinations of reduced sentences into topic + comment form.

16. Tesak & Dittmann (1991) also discuss this register and argue that it should not be treated on a par with the language of aphasics, contrary to what had often been suggested in the literature. They reject the claim that aphasics speak the way they do for reasons of 'economy'.

1.3 A distinct grammar for spontaneous speech?

Transcripts of spontaneous speech can make this register seem chaotic relative to written language. Teleman (1983) reports that even trained linguists tend to assume that spoken texts have a completely different grammar from written texts, probably due to the high frequency of incoherent or incomplete sentences is speech. Crystal (1976: 166) claims that the linguistic organization of the spoken register had been "fundamentally misconceived."

According to Linell (1988), the language of spoken conversation consists of loosely related phrases and clauses combined into structures that are less clear and hierarchical than the ones found in traditional grammars. Such observations have made several theorists recognise the problematic nature of the sentence in spoken conversation.

> It is not easy to establish what units can be recognized in spoken language and are useful for its analysis. Some analysts maintain that sentences are not recognizable in spoken language, others – that they are.
>
> The central problem is that it is far from evident that the language system of spoken English has sentences, for the simple reason that text-sentences are hard to locate in spoken texts. (Miller and Weinert 1998: 30)

Quirk et al. (1985: 47) point out that sentence boundaries may be difficult to locate in spoken data, and Crystal (1987: 94) states that it is not easy to decide whether pauses in spoken language function as sentence boundaries or whether the whole text is one loosely constructed sentence. Many linguists studying spoken language have in fact abandoned the sentence as an analytical unit (Halliday 1989, Brazil 1995, Carter & McCarthy 1995, Miller 1995, Miller & Weinert 1998 and Biber et al. 1999).

Miller (1995) and Leech (2000) argue that even if *sentence* is problematic, the term *clause* should be maintained for the spoken register. Traditionally, a sentence is understood as the set of words and phrases found between large punctuation marks (Linell 2005). A parallel definition for the oral medium could be based on pauses and intonation contours, as proposed in Chafe and Danielewicz (1987). Yet, these indications are not as discrete as the ones in written language. *Clause*, on the other hand, is more unambiguously a grammatical term. Radford (2004: 440) defines it as "an expression which contains (at least) a subject and a predicate, and which may contain other types of expression as well". Whereas the term *sentence* describes a linear linguistic expression, *clause* belongs to the system underlying our capacity for language (Miller 1995, Leech 2000). The reason for rejecting the term *sentence* was to avoid forcing spoken language data into the analytical frameworks constructed for written language (Leech 2000). Yet the concept seems relevant for spoken as well as written language. This view is supported by Miller (1995) and

Linell (2005). Hence, while linguists agree that there may not be sentences in spoken language, there are structural clauses obeying syntactic restrictions. Thus, the idea of constituent structure grammar is not automatically rejected (Leech 2000).

1.3.1 Same grammar or different grammars?

Implicit in the view that the sentence is irrelevant for spoken language is that the spoken and written registers are characterized by separate grammatical systems: "[i]f sentences are to be admitted as units of written but not spoken language, the next step is to analyse written and spoken language as having different language systems" (Miller 1995: 118).

Leech (2000) points out that in the study of English, there has been a tendency to assume that a completely new grammar is needed to analyze the grammatical characteristics of speech. Leech (2000) examines three different corpus studies from two different standpoints, the 'same grammar view' and the 'different grammar view', a distinction which can be traced back to earlier traditions in English grammar writing. The 'same grammar approach' of Biber et al. finds its roots in Quirk et al. (1972, 1985). The 'different grammar view' of Brazil can be traced back to Palmer (1924). Cheshire (2005: 83) also notes that "several researchers who have analysed corpora of spoken language claim that the structures of spoken language differ both from data obtained from intuitions and from the syntax of planned written language."

Brazil (1995) rejects the relevance of 'sentence grammar' as well as mainstream constituent-structure analyses for spoken language as they are based on the study of written language. Instead, he opts for a linear, process-oriented approach to the spoken register. Brazil's main goal is to study grammar on its own terms; thus he represents the 'different grammar view'. Contrary to Brazil, Biber et al. (1999) propose that by and large, spoken and written grammar may be characterized by the same descriptive apparatus of categories, structures and rules. Hence, they represent the 'same grammar view'. Finally, the *Nottingham school*, represented by Hughes, Carter & McCarthy (1995) and McCarthy (1998), takes an intermediate position. They insist that spoken grammar should be dealt with on its own terms, but they recognise that the same grammatical categories often apply to both media. Like Brazil (1995), they claim that the apparatus of theoretical grammars has been too heavily influenced by the written-grammar tradition, and they believe that the use of corpora can amend this by offering confrontation with linguistic reality (Leech 2000). However, the theorists of the Nottingham school recognize the dangers of taking an extreme position:

> (a) that we may rush off and assume that everything is different in spoken grammar and that nothing we say about written language has any validity for the description and the teaching of spoken language, or (b), equally dangerously, that we should assume that descriptions of the written grammar can simply be imported wholesale into spoken grammars. (McCarthy 1998: 3)

Leech (2000) points out that Brazil interprets grammar solely in terms of language use, not taking into consideration the grammatical system behind it.

> To go back to the old analogy of language and a game of chess, I believe that by focusing exclusively on the process of producing or interpreting grammatical sequences, Brazil is rather like a chess player who denies that the rules of chess have an existence independent of this or that game, seen as a sequence of moves. (Leech 2000: 54)

In Chomskyan terms, Brazil only considers performance factors and excludes the level of competence. According to Leech, a focus on performance should not lead to ignoring competence. In fact, the link between competence and performance may explain why the same system of grammatical categories applies to both registers: "It is obvious that the abilities to speak English and to write English are not unconnected, and surely they must be connected in the mind of the native speaker" (Leech 2000: 54). Consequently, Leech's claim is that the same analytical framework of grammatical categories can be applied to both registers. This is the position I endorse.

1.3.2 Dialogism versus monologism

Recall Linell's (1998) claim that spoken conversation consists of structures that are less clear and hierarchical than those of written language. Hopper (1998) says: "[t]here are good reasons to believe that the grammar of spoken dialogues is less systematic and integrated than what is assumed in structural and generative theories, which have often sought maximally general rules."[17]

I do not agree with this claim. Despite a high frequency of fragments and interrupted utterances, spontaneous speech does indeed follow a clause-constructing grammar. Teleman (1983) explicitly argues against the view that spoken language doesn't follow any grammatical restrictions:

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17. http://www.ofti.se/gris/beskrivning.html, accessed 20.07.2012. The reference to Hopper (1998) is a part of the quote. My translation. The original quote is: «Det finns goda skäl att anta att samtalsspråkets grammatik är mindre systematisk och integrerad än enligt strukturalistiska och generativa teorier, som ofta sökt efter de maximalt generella reglerna.»

> The naïve view that spoken language has no grammar is of course wrong. Spoken language is grammatically organized, otherwise our utterances would simply be chunks of single lexical words. We do not say "the street on the picture yesterday you see", rather our spoken words are connected in a meaningful way by grammatical conventions precisely like the words in written language are. Moreover: these conventions or rules or norms are mostly the same as in written language. (1)[18]

This does not mean that all spoken utterances are underlyingly sentence structures. As discussed, freestanding constituents are possible exceptions. Still, I do not accept the claim that spoken language is chaotic and that grammatical constraints do not apply. My position stands in contrast to Linell's (2005: 309) claim that in spontaneous speech "[s]yntax does not play an equally important role as in written language, rather syntax must compete with (or interact) with prosody and pragmatics."[19]

How can syntax compete with pragmatics? In the model of analysis I propose, syntax is present both in written and spoken language as a structure-building operation. It cannot be replaced with pragmatics or intonation because spoken utterances would not adhere to any grammatical constraints, e.g., restrictions on word order. Intuitively, this is true neither for spoken language nor for any other linguistic variety.

Note that the theoretical fundamentals assumed in Linell's study of grammar in spontaneous speech are radically different from the formal generative theory I endorse. Linell distinguishes between *dialogism* and *monologism*. Dialogism implies that all individuals at all times are in dialogue with other individuals as well as different contexts; these dialogues affect the speaker. Monologism implies the opposite: cognition and processing take place internally in each individual (Linell 2005). Dialogism constitutes the basis of Linell's theory: he claims that a monologic point of view is fundamental in generative theories.

I believe this strict division needs to be questioned. In my model, it will be of primary importance to isolate distinct levels of analysis, so that contextual input does not affect all levels of the construction or processing of an utterance. It is crucial to distinguish between the structural derivation of a sentence and the pragmatically-influenced processing of an utterance. According to Linell (2005), structural and generative grammar is abstract: it investigates decontextualized utterances from a monologist perspective. I, however, believe it is possible to include contextual influence while

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18. My translation. The original quote is: «Den naiva uppfattningen att talet inte har någon grammatik är naturligtvis felaktig. Talet organiseras grammatiskt, annars vore våra yttranden ju bara hopar av enstaka lexiconord. Vi säger inte "gatan på bilen igår förstås" utan våra talade ord sammanbinds meningsfullt av grammatiska konventioner precis som orden i skrift. Vad mera är: dessa konventioner eller regler eller normer är i stort sett desamma som i skrift.»

19. My translation. The original quote is: "Syntaxen spelar inte så stor roll som i skrift, utan måste konkurrera (eller samverka) med prosodi och pragmatik."

maintaining the assumption that narrow syntax is decontextualized. Contextual information affects other levels of the derivation.

1.4 Well-formedness in discourse ellipses

In generative grammar, data come mostly from acceptability judgments. This is problematic for performance data such as discourse ellipses: they often violate standard norms and can be considered unacceptable even though they are allowed and produced by the internalized grammar.

It is often assumed that introspection and acceptability judgments lead to insights about I-language while corpora only provide E-linguistic data (Cornips & Poletto 2005). However, this is only a qualified truth:

> In practice, we tend to operate on the assumption, or pretence, that these informant judgments give us "direct evidence" as to the structure of the I-language, but, of course, this is only a tentative and inexact working hypothesis, and any skilled practioner has at his or her disposal an armory of techniques to help compensate for the errors introduced. (Chomsky 1986a: 36)

Acceptability judgments alone do not provide direct insight into the I-language of an individual since they may be influenced by grammar-external factors (Cornips & Poletto 2005). Given that grammaticality is defined through I-linguistic competence, grammaticality judgments about specific sentences are strictly speaking not accessible to the intuition of language users. Native speakers can only have intuitions about acceptability (Newmeyer 1983: 51). Acceptability is a pretheoretical notion related to whether a language user, for any reason, will reject a sentence. Grammaticality, on the other hand, is a theoretical term (Newmeyer 1983). A sentence is grammatical only if it is generated by the I-linguistic grammar. Acceptability is part of performance; it describes language users' intuitions on whether specific utterances are well-formed. Hence, a sentence's grammaticality must be seen in relation to a formal representation of the grammatical competence of an individual (Newmeyer 1983). If a linguistic string is consistent with the I-language system, it is by definition grammatical.

Thus, in principle it is possible to distinguish between grammatical and ungrammatical discourse ellipses by devising a syntactic model that generates grammatical ellipses, but excludes ungrammatical ones. Hence, the method for distinguishing between grammatical and ungrammatical ellipses is inextricably linked to the development of the analytical model for this phenomenon.

The concept of grammaticality is particularly interesting when it comes to discourse ellipses since these constructions appear to violate the central restrictions

of standard Norwegian. For instance, normative grammars of Norwegian prescribe a strict subject requirement in finite main clauses. Yet, in spontaneous speech, the subject is often omitted. Moreover, it is commonly assumed that Norwegian is a verb second language and that all main clauses obligatorily contain a finite verb. Both of these requirements are frequently violated in discourse ellipses.

Based on these observations, we might ask whether the notion of grammaticality is relevant for discourse ellipsis. I argue that it is. Consider the following well- and ill-formed discourse ellipses:[20]

(39) Gikk ikke så veldig bra *versus* *Veldig ikke bra så gikk.
went not so very well very not well so went
'It didn't go very well.'

(40) Må vel ha katter. *versus* *Katter ha vel må.
must well have cats cats have well must
'You probably need to have cats.'

(41) Dratt på hyttetur igjen. *versus* *Igjen på dratt hyttetur.
gone on cabin-tour again again on gone cabin-tour
'He has gone to the cabin again.'

(42) ~~Det~~ gikk ikke så veldig bra *versus* *Det gikk ~~ikke~~ ~~så~~ veldig bra
~~it~~ went not so very well it went ~~not~~ ~~so~~ very well
'It didn't go very well.'

(43) ~~Vi~~ må vel ha katter. *versus* *Vi ~~må~~ ~~vel~~ ha katter.
~~we~~ must well have cats we ~~must~~ ~~well~~ have cats
'You probably need to have cats.'

(44) ~~De~~ ~~har~~ dratt på hyttetur igjen. *versus*
~~they~~ ~~have~~ gone on cabin-tour again
*De har ~~dratt~~ på ~~hyttetur~~ igjen.
they have ~~gone~~ on ~~cabin-tour~~ again
'He has gone to the cabin again.'

These examples demonstrate two ways in which a discourse ellipsis may be ill-formed. In (39)–(44) it is the omission of elements that is illicit, demonstrating that ellipsis cannot occur randomly in a clause. In (39)–(41), the word order is distorted, illustrating that word order is significant for ellipsis. If the word order changes, the result is ill-formed.[21] This insight may seem naïve, but it is important, because it

20. The well-formed examples in (39)–(41) are all retrieved from the NoTa corpus. The ill-formed ones are constructed for explanatory purposes and are not attested in the corpus.

21. For this section, it is primarily the word order type that is relevant. Licensing requirements will be thoroughly investigated in Chapter 6 and 7.

demonstrates that spoken language does not allow for syntactic anarchy. Neither does it necessitate the postulation of a different syntax. From these examples, we can conclude that even though discourse ellipses violate the restrictions of standard Norwegian, they follow specific well-formedness criteria.

These examples also raise the question of what constitutes relevant linguistic data. How can discourse ellipses, which violate the standard norms for Norwegian, be of any theoretical interest? Within the generative framework, the object of study has traditionally been defined as follows: "[l]inguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogenous speech community" (Chomsky 1965: 3). The grammar based on such data is called a *core grammar*. It is defined by the setting of UG parameters (Chomsky 1981a). But language also contains peripheral constructions: imported constructions, historical residues, innovations and so on (Chomsky 1981b). Haegeman (1994: 17) gives this definition of the periphery:

> For instance, we go on learning new words throughout our lives. In addition we also learn certain less usual constructions of the language. These exceptional or marked patterns of the language are not taken to be part of the core grammar of the language, they belong to the marked periphery of the grammar and may be acquired later.

Therefore, it seems logical to define discourse ellipses in different registers as peripheral phenomena. Compared to regular, idealized language, discourse ellipses represent exceptions. Ordinarily, a declarative sentence of the core grammar of Norwegian would have a phonologically realized subject and would be V2. Discourse ellipses may not obey any of these requirements if they belong to the periphery. However, it makes no sense to define the spoken register as peripheral. Of all registers, this should be the core one.[22] I will not pursue this issue. What is important is not whether these data are peripheral or not, but rather whether they display clear restrictions that can be accounted for. Clearly, they do. Chomsky (1981b) notes that peripheral data can shed light on grammar and argues that such data should not be discounted: both the core and the periphery are part of the internalized linguistic competence. The periphery does not contain only chaos but also regular structures (Chomsky 1981b).

Register variation in Norwegian is discussed in Eide and Åfarli (2007), who argue that the following varieties display regularity: grammatical and ungrammatical strings can be distinguished within one register:[23]

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22. To my knowledge, the core/periphery issue with respect to discourse ellipses has not been explicitly discussed in the literature.

23. See Eide & Åfarli (2007) for illustrative examples of each variety.

- The syntax of diaries and headlines: frequent subject omission
- The syntax of spoken language: frequent sentence initial omissions
- Hymns[24] and festive syntax: SOV word order
- Poetry: unusual word order due to 'poetic liberty'

Following Roeper (1999), Eide & Åfarli (2007) argue that such variation can be understood as a kind of multilingualism. One individual has access to several parallel I-grammars activated by contextual triggers that determine which grammar is relevant in a certain context. This theory can explain register variation without characterising all data violating standard norms as mistakes or performance errors. When a string from one register violates standard requirements, this may simply be the result of a different syntax. Consequently, peripheral varieties of Norwegian can be assessed as grammatical relative to their specified register. The claim that discourse ellipses are grammatical can thus be upheld.

Hymns, poetry and festive language display true syntactic differences, the word order being different from standard Norwegian. Data from spoken language, diaries and headlines, do not display any such word order differences. In these registers, the variation is first and foremost due to differences in phonological instantiation. Compare the following elliptical sentences (from the NoTa corpus)[25] with their non-elliptical counterparts:

(45) Tok med seg sånn albinopytonslange. –
took with self such albino pyton snake
'(He) brought such an albino pyton snake.'

Han tok med seg sånn albinopytonslange.
he took with self such albino pyton snake
'He brought such an albino pyton snake.'

(46) Klarer jeg ikke altså. – **Det** klarer jeg ikke altså.
handle I not therefore That handle I not therefore
'(That), I just cannot handle.' 'That, I just cannot handle.'

The word order in the elliptical versions is identical to the one in the corresponding full-fledged sentences, which strongly suggests that the underlying syntax is the same. From this I conclude that it is a mistake to classify discourse ellipsis as an instance of a parallel grammar: the difference between an elliptical and a corresponding non-elliptical expression is not syntactic, but phonological.

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24. See Barstad (2000).

25. NoTa-Oslo: Norwegian Speech Corpus – the Oslo part (Tekstlaboratoriet, ILN, Universitetet i Oslo. http://www.tekstlab.uio.no/nota/oslo/index.html).

This entails that there are two main well-formedness criteria for discourse ellipses. Firstly, the syntactic structure must be correct, and secondly, the ellipses must obey certain restrictions on realization (which elements it is possible to elide and from which positions). The word order restrictions in ellipses are identical to those for full-fledged clauses. It is only the restrictions on phonological realization that differ. Recall the ill-formed examples in (39)–(41), which were divided into two subclasses. The ellipses in (39)–(41) were illicit due to word order, i.e., they were not well-formed for structural reasons; (39)–(44) are ill-formed because the restrictions on realization of elements are not obeyed. The dividing line between underlying, abstract syntactic structure and phonological instantiation will be an important focal point for the model of analysis that I will develop.

1.5 Collection of data

The data for this study was collected through a combination of corpus studies, introspection and elicitation of judgments from informants. Since each method has advantages and disadvantages, a combination is advantageous. A corpus provides authentic spoken data, so I use corpus data. In some cases, the need arises to test types of discourse ellipses which I (by introspection) may suspect to be (un)acceptable; such a test provides important theoretical input. After the first phase of data collection, additional, more fine-grained theoretical questions arose. For instance, if the corpus shows that topicalized subjects can be dropped, it is relevant to find out whether subjects can be dropped from other positions, too, and whether other types of constituents can be dropped from [SPEC,CP]. Also, can several constituents be omitted at once? Which ones, and under which structural circumstances? The corpus may provide answers to some of those questions, but not all. To investigate such specific questions, it was necessary to construct possible discourse ellipses and test them by eliciting judgments from informants.

In principle, relevant data could also be found in written registers. However, for my purposes, spoken dialogues provide the most appropriate data. Spoken data surround us, and, thanks to tagged spoken corpora, these data are easily accessible. In these corpora, the context is easily observed, both the linguistic context, since the corpus provides earlier utterances in the dialogue, and occasionally also the non-linguistic context.[26] This is fortunate as the licensing of discourse ellipses is often context dependent. Finally, elliptical data in spoken dialogues are not influenced

26. Some modern corpora (e.g. the NoTa corpus and the Big Brother corpus) include video recordings of the spoken dialogues.

by written standards, contrary to the elliptical data in written registers. Hence, using mostly spoken data eliminates a possible source of bias.[27]

The first step in my investigation was to examine spoken data both from corpora and from conversations I observed in person. This pointed to the kinds of elements most frequently omitted and from which positions. I also considered whether the ellipses in question were acceptable to me as a speaker. Then, I studied the data in tagged spoken corpora more systematically.[28]

My primary source of empirical data were Norwegian spoken language corpora. More specifically, I searched for authentic examples in the NoTa-corpus (Norwegian speech corpus – the Oslo part) and the Nordic Dialect corpus. The NoTa corpus was built between 2004 and 2006 and consists of interviews with and conversations among 166 informants who were born and raised in the Oslo area. The Nordic Dialect corpus contains spoken data from all parts of Norway.[29] Both corpora contain recordings of spontaneous dialogues between two informants in addition to interviews conducted by a research assistant.

I also looked at the Big Brother corpus, which consists of transcripts of the first Norwegian season of the television show Big Brother in 2001; this corpus also includes recordings of spontaneous conversations. Additionally, I searched the TAUS corpus, which consists of spoken data from interviews conducted between 1971 and 73 (and were digitized, transcribed and tagged in 2006–7).

All corpora were orthographically transcribed and grammatically tagged by the Text Laboratory at the University of Oslo.[30] They provide both transcripts of the dialogues and video recordings or, in some cases, sound files. Hence, both the linguistic and the non-linguistic context are easily accessible. This is a clear advantage for the investigation of discourse ellipses, given that these constructions are highly context-dependent.[31]

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27. Note that the examples provided in this book in general follow the orthography of *Bokmål* ('Book Language'), one of the two standard forms of written Norwegian. When an example is given in the other written standard, *Nynorsk* ('New Norwegian'), this is indicated in the surrounding text. The corpus examples cited follow the same pattern, as the corpora I used are transcribed orthographically, not phonetically.

28. I utilized spoken corpora developed by Tekstlaboratoriet at the University of Oslo: The NoTa corpus, the Big Brother Corpus and the Nordic Dialect Corpus.

29. The corpus covers the spoken languages of all Nordic countries: Norwegian, Swedish, Danish, Faroese, Icelandic and Övdalian. My investigation is limited to Norwegian.

30. For additional information about each corpus, see the webpages of the Text Laboratory: www.tekstlab.uio.no.

31. I did not look at variables such as age, gender, dialects, etc. Neither did I conduct frequency statistics. Since these corpora are not tagged for ellipsis or for missing constituents, it is not

The tag *segment initial* was particularly useful for locating relevant examples in the corpora: it allowed me to search for utterance-initial elements; this was useful given that discourse ellipses primarily involve sentence-initial omissions. The segment initial tag allowed me to search for utterances in which the initial element was a finite verb, which led me to examples of topic drop. It also permitted me to search for verb-initial cases containing an anaphor, which led to ellipsis with connectivity effects between an elided subject and an anaphor. Moreover, searching for segment initial verbal participles led to examples where both a subject and a finite auxiliary were omitted.

In searching a corpus, one is limited by one's creativity: I was only able to search for empirical cases I could think of. In this respect, my search was hypothesis-driven: I first established certain issues I wanted to investigate and then looked for the relevant data. I also conducted less specific searches of the corpora, i.e., I scrolled through large amounts of transcribed speech to make sure I was not overlooking important ellipsis types. Obviously, however, I cannot guarantee that there are not additional types in the corpus.

Despite all my efforts, it was not possible to find all relevant data types in the corpora. I encountered this issue after beginning data analysis and testing the theoretical predictions of previous analyses and my own preliminary hypotheses. Not finding a sentence type in a corpus does not mean that sentence type does not exist in the language. Therefore, I ran informant tests on a selected set of discourse ellipses, both for cases I suspected acceptable and for those I suspected unacceptable due to ungrammaticality. For each tested sentence, I collected judgments from at least three informants, all at least 16 years old and all native speakers of Norwegian. To prevent informants from providing judgments of how normatively correct the string is (rather than evaluating to what extent it occurs), I asked them: 'How natural does this sound?' rather than 'Do you judge this sentence to be correct?' or 'Would you use this sentence?' (see Featherston 2007: 292 for a discussion of this issue).

Testing discourse ellipses with informants is a challenging task. Firstly, such ellipses in general are apparent violations of the rules of standard Norwegian. Secondly, discourse ellipses most often require a very specific context to be licensed. Therefore, I provided a context for each example I tested.

Throughout this book, the data from spoken corpora are labeled with the corpus in which they were found. The Norwegian Speech Corpus (the Oslo part) is abbreviated as NoTa, and the Nordic Dialect Corpus as NDC. Authentic data from

possible to determine the frequency of the different ellipsis types. Hence, my investigation will not make any specific claims with respect to frequency. Rather, I focus on specifying the types of discourse ellipses and proposing a grammatical analysis that accounts for them.

other sources are also given a reference. Constructed examples are not labeled. In those cases, it can be assumed that they have been checked and approved by at least three informants.

Many of the elliptical examples require a specific context; due to space restrictions, I have not included extensive context for the corpus examples in the running text. That is provided in the appendix. For the constructed examples, the context provided to the informants is included in the running text.

1.6 Overview of the book

The overall goal of this book is to propose a grammar model capable of analysing different types of discourse ellipses, primarily initial ellipsis, i.e. which involve the left edge of the clause. This raises important theoretical questions concerning the relationships among syntactic, semantic and pragmatic content.

Chapter 2 summarizes previous research on discourse-triggered dropping of constituents. I show how earlier analyses have centred on dropping from the specifier of CP, i.e. topic drop-analyses. I argue that the empirical base upon which they are built is too narrow as discourse ellipses may also include omission of elements also from other positions.

In Chapter 3, I establish the basis for the model I will propose. I discuss where to draw the line between the syntactic, semantic and pragmatic portions of a derivation, and I argue for a selective theory of semantics. In the second part of this chapter, I present arguments in favour of an exoskeletal, separationist theory of syntax, rejecting the endoskeletal, lexicalist take assumed in most branches of generative grammar. In Chapter 4, I propose a clausal skeleton in which each main projection (CP, TP, PrP and VP) is motivated from a non-lexical, G-SEMANTIC base.

This clausal skeleton is adopted in the analysis of Norwegian discourse ellipses that I propose. I start from the assumption that any object of study can be approached with at least two different aims. One could try to characterize the objects as such (*what*-questions) or one can aim to discover *why* the objects exist in the first place. This distinction relates to discourse ellipses. Therefore, my analysis is divided into two parts. In Chapter 5, I discuss the structural properties of discourse ellipses. I argue in favour of a full-fledged syntactic structure and against a truncated structure. Word order and connectivity effects provide empirical support for this viewpoint. More specifically, I discuss agreement and phi-feature valuation, and I propose an analysis in which feature matrices are not linked to lexical items but to syntactic positions. Chapters 6 and 7 focus on the *why*-questions. More precisely, I address the licensing conditions on discourse ellipses: which elements

can be omitted from which position and under which restrictions. I conclude that an adequate account of the licensing restrictions must comprise both structural and semantic conditions. I conclude that the deletion in ellipsis is phonological (the syntactic structure is intact) and that this phonological deletion obeys both semantic/pragmatic and structural restrictions. These are discussed in Chapters 6 and 7, respectively. Chapter 8 sums up the main contributions of the study.

CHAPTER 2

Null arguments in generative theory

Discourse ellipsis data clearly demonstrate that omission occurs mostly sentence-initially, cf. 0. The omission of a sentence-initial argument has been labelled *topic drop*; the resulting sentences has an unrealized discourse-salient topic: "[a]s noticed already by Ross (1968) and further developed in Huang (1984), it is possible in many languages to leave out a contextually prominent subject or object in sentence-initial position, but not in other positions" (Platzack 2000: 51).

It is generally assumed that in topic drop, [SPEC,CP] is not realized. This prevents topic drop in subordinate clauses like (48). Also, since [SPEC,CP] can only host one constituent, topic drop is ruled out when another element is fronted, as in (49) and (50).[1] Finally, only one constituent can be dropped, the one that occupies [SPEC,CP] of the matrix clause (51):[2]

(47) ~~Vi~~ fikk ny leieboer med hund. NoTa
~~we~~ got new tenant with dog
'We got a new tenant with a dog.'

(48) *Jeg vet at ~~vi~~ fikk ny leieboer med hund.
I know that ~~we~~ got new tenant with dog
'I know that we got a new tenant with a dog.'

(49) *Ny leieboer med hund fikk ~~vi~~.
new tenant with dog got ~~we~~
'A new tenant with a dog, we got.'

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1. Example (47) is taken from the NoTa corpus. The unacceptable examples in (48)–(51) are constructed.

2. Example (51) is unacceptable. Yet, sometimes if an element is sufficiently discourse prominent, it can be elided even if the deletion violates structural restrictions. For example, one could envision a context that would make the example much more acceptable:

(1) Når var det dere skulle få ny leieboer med hund?
'When was it that you were getting the new tenant with a dog?'

(2) ?? ~~Vi~~ fikk ~~ny leieboer med hund~~ forrige helg.
~~we~~ got ~~new tenant with dog~~ last weekend
'We got a new tenant with a dog last weekend.'

(50) *Hva var det ~~vi~~ fikk?
what was it ~~we~~ got
'What was it that we got?'

(51) *~~Vi~~ fikk ~~ny~~ ~~leieboer~~ ~~med~~ ~~hund~~ forrige helg.
~~we~~ got ~~new~~ ~~tenant~~ ~~with~~ ~~dog~~ last weekend
'We got a new tenant with a dog last weekend.'

The last condition is also illustrated in (52) (from Mörnsjö 2002).[3] The [SPEC,CP] can host only one constituent, so (52b) is ill-formed as only one of the null elements is licensed. The well-formed topic drop in (52c–d), displaying subject and object topic drop respectively, support this argument; in these cases, only one constituent is omitted:

(52) a. Har du sett mina nycklar?
have you seen my keys
b. *ø La ø på bordet.
ø put ø on table-the
c. ø La dem på bordet. (ø = jag)
ø put them on table-the (ø = I)
d. ø La jag på bordet. (ø = dem)
ø put I on table-the (ø = them)

Ever since Huang's (1984) influential work on null arguments, the discussion of silent arguments has focussed on the identification, categorization, and structural licensing of null elements cross-linguistically. The empty category is analysed either as *pro*,[4] a phonologically null pronoun identified through agreement, or as topic drop, a discourse-identified operator that binds a variable in the argument position (see Huang 1984; Sigurðsson 1989; Cardinaletti 1990; Haegeman 1990; Rizzi 1994; Huang 1995; Rosenkvist 1995; Platzack 1996, 1998a; Mörnsjö 2002).

Generative research has thus generally focused on two aspects of the phenomenon: the non-realization of referential arguments and the position [SPEC,CP]. In what follows, I will discuss the most important theoretical contributions and specify which parts of the previous analyses are included in the model that I present.

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3. I will discuss this issue in more depth in later chapters. For now, I want to point out that, at least in Norwegian, there is a clear difference in acceptability between 0–(50) and (51). I argue that although this example is not fully acceptable, it is not completely illicit either; it would be quite acceptable in a very specific context.

4. See Roberts (2007) for an overview of theoretical contributions on *pro* and the null subject parameter.

2.1 *Pro* drop and zero topic

Huang (1984) proposes a cross-linguistic analysis of the distributional and referential differences of null arguments, introducing two distinct parameters, +/− *pro* drop and +/− zero topic. Different values on these parameters lead to different types of null arguments. A language with *pro* drop, e.g. Italian, may have a silent pronoun in [SPEC,IP]. In a +zero topic language, on the other hand, e.g. Chinese, an empty category can be identified and licensed under A′-binding by a silent topic operator in [SPEC,CP].

Huang's analysis of zero pronouns assumes two distinct parameters.[5] One of them distinguishes zero-topic from non-zero-topic languages, and the other pro-drop from non-pro-drop languages. Moreover, the possibility of allowing a variable bound to a zero-topic can be related to a more general parameter distinguishing discourse-oriented from sentence-oriented languages, responsible for a cluster of properties (Tsao 1977). One of these is Topic NP Deletion, which predicts that a topic can be deleted if it is identical to a topic in a preceding sentence. Chinese is discourse-oriented and English is sentence-oriented. In Huang's classification, German is discourse-oriented since it has discourse-bound empty topics.[6]

Types of empty categories	***Hot* languages (Eng/French)**	***Medium* languages (Italian)**	***Cool* languages (Chinese)**
Zero subject (PRO) in tenseless clauses?	Yes	Yes	Yes
Zero subject (pro) in tensed clauses?	No	Yes	Yes
Zero object (pro)?	No	No	No
Zero topic?	No	No	Yes

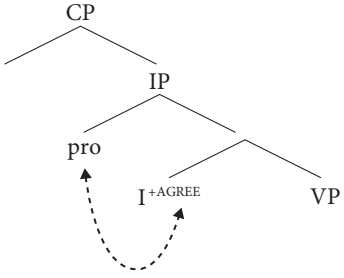
Note that none of the languages exhibit true zero objects. Empty object pronouns are prohibited in Chinese, but null objects occur because Chinese is +zero topic, i.e., it allows for a silent operator in [SPEC,CP] to bind a variable in the object position.

Italian is a +*pro* drop, -topic drop language; it allows for a silent *pro* subject in [SPEC,IP], identified through the rich agreement morphology on the verb:

5. According to Huang (1989), the German data provide support for the above classification. As for English and French, they are neither zero-topic nor pro-drop languages. Italian and Spanish on the other hand are pro-drop, but not zero-topic. If we consider the typological scheme proposed by Huang, German appears to be a fourth type: zero-topic but non-pro-drop. Consequently, it provides important evidence for the theory, since it fills an otherwise peculiar gap (Huang 1989).

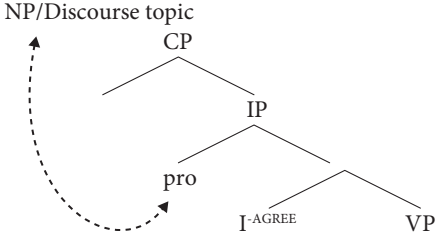
6. The first row of this table, the distribution of PRO, is not relevant for my purposes.

(53) Subject drop in Italian:



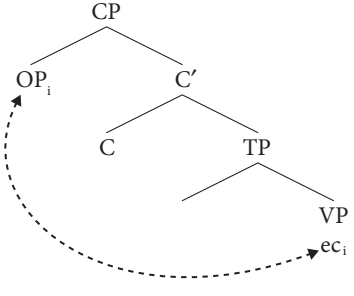
Silent objects are not allowed in Italian, since it is not a zero topic language. English and French are both -*pro* drop and -zero topic. Even though both display agreement morphology on the verb, this agreement is too weak to identify *pro*. Hence, null subjects are illicit. Null objects are also prohibited, since English and French are not +zero topic. Chinese, on the other hand, is both +*pro* drop and +topic drop. Note that Chinese does not have any agreement on the verb. Huang proposes that the *pro*-subject in this case can be identified through linking to a topic in the discourse or to an antecedent in a superordinate clause, i.e., through control:

(54) Subject drop in Chinese:



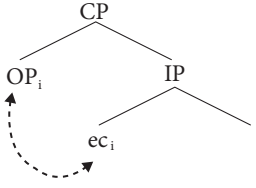
Chinese also allows silent objects if the null object is bound by a silent topic operator in [SPEC,CP]. Huang notes that the null object must refer to the discourse topic:

(55) Object drop in Chinese:

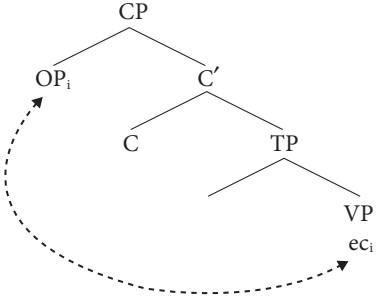


In German, both subjects and objects can be dropped, but the omission is restricted to the sentence-initial topic position, and only one argument per sentence can be dropped. German is like Chinese in allowing an object NP to stay unrealized; object drop in German thus receives an analysis parallel to the one for Chinese (Huang 1984). The empty category in the object position is bound by a zero topic operator in [SPEC,CP], which in turn is discourse linked. The two languages thus allow a variable bound by a zero topic. This is 'visible' only in German because of V2, which does not exist in Chinese. For German, this operator-variable analysis extends to subjects as well. This explains the distribution of null subjects in German.[7]

(56) Subject drop in German:



(57) Object drop in German:



Huang's (1984) theoretical insights are important for the study of discourse ellipses. We need to recognize that silent subjects in German are not instances of *pro*. Moreover, Huang emphasizes that topics may be null when identical to a topic in a preceding sentence. This is relevant for discourse ellipses, where silent elements can be recovered sentence-externally. However, Huang's empirical focus are silent arguments of the referential type, and Norwegian discourse ellipses are not empirically restricted in that way: in addition to referential arguments, expletive subjects may also be omitted. Moreover, elements other than arguments may also be silent. Thus, my model needs to account for a broader set of data.

7. At this point, Huang (1989) points to Ross (1982), who labels this *pronoun zap*.

2.2 German subject/object asymmetries

Cardinaletti (1990) discusses null-topic constructions in German, sentences that are superficially verb first because [SPEC,CP] is not lexicalized.[8] She proposes that null subjects are instances of topicalized *pro* drop: a *pro* subject moves to [SPEC,CP]. Null objects are instances of topic drop involving null operators in [SPEC,CP] binding an empty category in object position.

(58) a. $\underline{ec1}_{OBJ}$ habe ich gestern $\underline{ec2}$ gekauft. *object topic drop*
have I yesterday bought
'I have bought it yesterday'

b. $\underline{ec1}_{SU}$ habe $\underline{ec2}$ es gestern gekauft. *subject topic drop*
have it yesterday bought
'I have bought it yesterday'

This differs from Huang's (1984) analysis, in which subject drop was also a case of an operator-variable construction.

Hence, sentences with subject topic drop are analysed as in Italian, involving the null pronoun *pro*, which can move to [SPEC,CP], like any other XP in German. While in Italian the recovery of the feature content of the null subject depends on the agreement specification on the verb, in German the recovery hinges on the linguistic or pragmatic context.[9] This analysis predicts that expletive subjects cannot be null in German since they cannot be contextually recovered.

This category difference correctly predicts, according to Cardinaletti, that object drop, contrary to subject drop, is restricted to 3rd person. The null Op is a (-pronominal) and (-anaphoric) empty category, which can only be associated with 3rd person NPs, since 1st and 2nd person pronouns are intrinsically (+anaphoric) (+pronominal). Null subjects, on the other hand, are pronouns, which can have any person specification.[10]

I will argue that this 3rd person restriction is too strict for the Norwegian data. Moreover, Cardinaletti's analysis excludes expletive null subjects since they are never recoverable. However, expletive subjects are among the most frequently dropped elements in Norwegian discourse ellipses. The empirical base assumed by Cardinaletti thus differs from mine, so her analysis makes the wrong predictions. Finally, like Huang's (1984) analysis, Cardinaletti's (1990) analysis of Germanic null elements is

8. The examples in (58) are from Cardinaletti (1990).

9. This is also what we find in colloquial Swedish (Sigurðsson 1989) and Norwegian.

10. Mörnsjö (2002) argues that the same pattern is found in Swedish. I will argue, however, that the empirical patterns are less clear for Norwegian. Although not frequent, cases of null 1st and 2nd person null objects are attested.

restricted to the position [SPEC,CP]. Yet, Norwegian discourse ellipses display silent elements in other positions as well. Auxiliaries and copula verbs also undergo ellipsis in Norwegian.[11] Thus, for our purposes, the empirical base needs to be expanded. Still, Cardinaletti's point that silent elements need to be recoverable – sentence-internally, as in Italian, or from linguistic or non-linguistic context, as in Germanic – is important for the model I propose. Also, the attested asymmetry between topicalized null subjects and null objects is an insight I will incorporate in my analysis.

2.3 The null constant

Rizzi (1994) notes that null subjects in colloquial German and other Germanic varieties obey the same structural restrictions as early null subjects in non-*pro* drop languages. A main clause subject can be dropped from the specifier of COMP in a V2 configuration, but not in clause-internal position or in embedded clauses. However, in colloquial German, preposed objects can also be dropped, contrary to what is described for English acquisition data.

Because of this subject-object *symmetry* in German, a topic drop analysis with an operator in [SPEC,CP] binding a subject/object variable has been proposed (Ross 1982, Huang 1984). Rizzi objects to this proposal, due to the observed asymmetry between subject and object drop with respect to person specification, as pointed out by Cardinaletti (1990).

Rizzi argues that none of the empty categories currently assumed in the theory have the correct properties. He therefore proposes a new analysis, drawing on Lasnik & Stowell (1991), who postulate a split between the two types of A′-bound traces.[12] Only the trace bound by a genuine quantifier is a variable; the trace bound by the empty operator is not. Rizzi postulates that this latter trace type is a *null constant*, a non-variable R-expression, that is –anaphoric, -pronominal and –variable. To be identified, this null constant needs to be A′-bound by a null operator.

Now Rizzi asks: What is it that forces A′-binding of the null constant by a null operator? Why can't the null constant behave like other definite descriptions and pick up its referent directly in discourse? The proposed answer is that, like all other

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11. In addition, we find sentence-medial ellipses in Norwegian. Yet, I will not treat this thoroughly in this book.

12. Lasnik & Stowell (1991) observed a significant interpretive differences between constructions with null operators (1a) and 'ordinary operator-variable constructions' as found in wh-questions (1b) (examples from Rizzi 1994):

(1) a. John is easy OP_i to please t_i. null operator – variable
b. John wonders who_i to please t_i. ordinary operator – variable

non-pronominal empty categories, the null constant must satisfy the identification requirement stated in the Empty Category Principle (Lasnik & Stowell 1991; Rizzi 1994: 160):

> ECP (identification)
> Empty categories <– p> must be chain-connected to an antecedent.

An empty category requires a clause-internal antecedent. It cannot be linked directly to an antecedent in the discourse.

Importantly, the empty category found in German topic drop constructions, which is bound by a discourse-identified null operator, is now also defined as a null constant. In object drop, the null constant is bound and thereby licensed by a null OP, with inherent 3rd person singular features. In examples of subject drop, there is no such person restriction. Null subjects may be 1st, 2nd or 3rd person. To account for this, Rizzi argues that in V2 languages, the [SPEC,CP] position can occasionally behave as an A-position, when the local subject is moved there.[13] Hence, the null constant subject can be situated in [SPEC,CP], from where it can bind an NP-trace in [SPEC,IP]. Thus, in null subject constructions, no null OP is involved. In such a scenario the null constant subject would lack a clause-internal identifier and would violate the ECP. To fix this problem, Rizzi (1994: 162) proposes a revision of the ECP allowing the specifier of the root to be exempt from the identification requirement; as a consequence it is available for discourse identification: [14]

> ECP (identification):
> Empty categories <– p> must be chain-connected to an antecedent
> … if they can

Due to the revised ECP, the null constant in [SPEC,CP] is identified in the discourse. In German, the null constant is also possible in other structural positions, e.g. with objects, provided it is bound by the discourse-identified null operator in [SPEC,CP] (Rizzi 1994: 163). Thus, for null objects, identification happens through a chain connection with the operator in [SPEC,CP], which in turn is identified in the discourse.

Rizzi extends this null constant analysis to all cases of root null subjects, including early null subjects in non-*pro* drop languages and also diary style. In a way that is similar to Huang (1984) and Cardinaletti (1990), but Rizzi restricts his analysis to

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13. The idea that [SPEC,CP] may be an A-posisiton in V2 languages is also argued for by Holmberg (1986), Taraldsen (1986) and Rizzi (1991).

14. Hence, the status of the root is crucial; it is therefore important to define how the root can be realized. Rizzi (1994: 162) states the following principle:
Root = CP

referential arguments and omissions from the position [SPEC,CP]. As noted earlier, this empirical base is too narrow when it comes to discourse ellipses.

Rizzi (1994) notes the possibility of dropping non-referential subjects in early English, adult Swedish and colloquial French. Sentences with null expletives seem to be genuine cases of root null subjects. The expletives can only be dropped from the initial position and cannot be omitted when [SPEC,CP] is filled. Rizzi does not give a detailed explanation of null expletives, but points out that specifiers are optional, unless required by a constraint such as the EPP. This entails that [SPEC,CP] may be missing, and if so, an unbound null constant in [SPEC,IP] becomes possible. The null constant does not violate the ECP since there is no c-commanding maximal projection that may act as its antecedent. Thus, Rizzi argues that the non-referential null constant is possible here, while it remains illicit in embedded contexts or in main contexts where [SPEC,CP] is present. Still, this proposal contradicts the analysis proposed for referential null constants, which hinges on the assumption that the null constant moves from [SPEC,IP] to [SPEC,CP]. Thus, this analysis of null expletives is not compatible with the analysis of referential null subjects. Rizzi (1994: 169) himself also points out this weakness. Null expletives therefore remain a theoretical challenge.

2.4 Null subjects in abbreviated registers – structural truncation?

Over the last two decades, Liliane Haegeman has discussed the phenomenon of null subjects in special registers of English. She focuses on diaries, but argues that the analysis is also valid for other written registers in which "pressures of economy seem to over-rule the 'core' grammar" (Haegeman 2000: 132).[15]

Haegeman & Ihsane (1999) point out that empty subjects in abbreviated registers of English, i.e., root null subjects, do not fit easily into the traditional generative classification of empty categories: A-traces, PRO, *pro* and A′-traces. Haegeman (1990) observes that the root null subject has similar distributional properties as a *wh*-trace and argues that it is a trace A′-bound by a discourse topic in the left periphery of the clause. This assumption is based on the characterization of *wh*-movement and topicalization as parallel syntactic operations. A similar analysis is proposed by Weissenborn (1992) and Bromberg & Wexler (1995). Clearly, these analyses build on Huang (1984).

15. Economy here refers to concrete space restrictions imposed by the registers, not to theoretical economy.

Haegeman (2000) abandons her previous analysis.[16] Building on the insights of Rizzi (1994), she proposes that the root null subject is an *antecedentless empty category* in the specifier of the root, parallel to Rizzi's null constant. Haegeman also adopts Rizzi's (1994: 162) reformulation of the ECP to account for the identification of root null subjects. She also advances the hypothesis that the adult null subjects are antecedentless empty categories in [SPEC,IP] and that CP is truncated. Structural truncation then becomes a characteristic of the 'abbreviated' styles.

Following the revised ECP (Rizzi 1994), traces are allowed to occur in one position without being identified by an antecedent, namely the highest position in the clause. Accordingly, Haegeman postulates that if one could generate a clause without the CP layer, with a trace in the subject position [SPEC,IP], such a trace would escape the identification requirement because there is no c-commanding XP position to identify it. Haegeman therefore assumes a CP-less structure for these cases (both early null subjects in non-*pro* drop languages and adult null subjects in abbreviated registers). The idea is that null subjects in abbreviated registers are licensed by virtue of the non-availability of an antecedent position. Their content is identified directly from the discourse. The hypothesis is that root sentences with null subjects in these registers have one distinctive property: their CP level is not activated.

But *why* do abbreviated registers allow for truncation of the CP layer? In the unmarked variety of English, a finite clause must always project to CP, the locus of illocutionary force. One way of conceiving this structural truncation is to interpret it in terms of economy, requiring structure to be minimal:

> While in the standard registers the requirement that the root CP be projected is inviolable, and ranks higher than the economy requirement, in abbreviated registers economy prevails and the requirement that structure be minimal ranks higher than the requirement that the root CP be projected.
>
> (Haegeman & Guéron 1999: 624)

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16. She argues that a *wh*-phrase is usually considered a focussed element, not a topic. Furthermore, the CP domain (following Rizzi 1997) is actually split into several projections. As a consequence, preposed topics and *wh*-constituents have distinct landing sites, entailing that preposed *wh*-phases and topicalized constituents are not in complementary distribution after all. The assumed basis for the topic drop analysis then dissolves: the left periphery in the revised model no longer consists of a single projection and *wh*-preposing and topicalization do not target the same position.

Haegeman (2000) notes that in these abbreviated registers of English, null subjects are frequently attested, but null objects are never available. Yet, a topic drop analysis should allow for both null subjects and null objects. A last counterargument against a silent topic analysis is that non-referential subjects are frequently omitted, but non-referential subjects cannot generally be topicalize in English and French (Haegeman 2000).

But how can a truncated structure with a bare IP be integrated into the discourse, CP providing the interface between the sentence and the discourse? Haegeman (2000) proposes a more direct procedure, comparing it to the interpretation of pronouns as either anaphoric or indexical. Whenever a bare IP is used as a root clause, the discourse connection is established indexically. However, this suggestion is not developed further, so the question is left unanswered. In what follows, I will argue against a truncated structure analysis, primarily because of the attested connectivity effects in discourse ellipsis.

Haegeman's approach does not seem applicable to my study for several reasons. Like the analyses presented in the previous sections, hers is restricted to the treatment of arguments and the position [SPEC,CP]. It excludes topic drop of objects, which is frequently found in my data from spoken discourse (unlike in English diary style). Moreover, Haegeman does not discuss null expletives, which are among the most frequent null elements in Norwegian discourse ellipses. Hence, the empirical base is different. Also, her analyses are developed for English and French, which are not V2 languages. It seems that the patterns are slightly different in German and other V2 languages. Therefore, I argue against a truncated structure analysis for discourse ellipses.

2.5 Fundament ellipsis in Swedish

Platzack (1998a, 2010) argues that *fundament ellipsis*, i.e., topic drop, in Swedish, is best analysed as a silent pronoun in [SPEC,CP]. He claims that both subject topic drop and object topic drop are instances of *pro* drop, where *pro* is moved from subject or object position to [SPEC,CP] and is identified in the discourse.[17] This construction cannot be given an operator-variable analysis in Swedish as operators are not sensitive to lexical category. If an operator occupies [SPEC,CP], it would be expected that elements of any category could be left out. However, according to Platzack (1998a, 2010), topic drop is restricted to nominal constituents.

Platzack takes this sensitivity to lexical category as an indication that such deletions are not purely phonological. Any type of constituent can move to the specifier of CP, but only nominal elements can be elided. If one were to argue for pure phonological deletion, one would have to assume a phonological rule sensitive to lexical category. Platzack therefore argues that a *pro*-analysis makes more sense.

17. The glossing and translation of the examples are mine, but the examples are Platzack's.

I will argue that this line of reasoning is founded on the wrong empirical grounds. It is not true that non-nominal topics can never be dropped. Light adverbials are frequently omitted from [SPEC,CP] (Mörnsjö 2002).[18] Also, in Platzack's analysis the empirical differences between *pro* drop in Romance languages and null arguments in Germanic, e.g., Swedish, are lost. Due to different licensing restrictions for the two categories, Platzack has to stipulate an additional difference between the licensing restrictions on *pro* in Romance languages and in Swedish, even though the silent element is allegedly the same.

Mörnsjö (2002) takes this issue with Platzack's (1998a, 2010) analysis as a point of departure and argues that the *pro* vs. operator discussion really overshoots the mark. Mörnsjö proposes an analysis of V1 declaratives in Swedish, including topic drop of both subjects and objects, but also sentences in which an initial adverbial is dropped (narrative inversion). Moreover, Mörnsjö underlines that previous studies have focussed primarily on structural licensing and identification of null arguments, neglecting contextual and pragmatic factors. Her analysis seeks to address this. Hence, both empirically and theoretically, Mörnsjö (2002) represents a broadening of perspective.

Mörnsjö distinguishes between two types of V1 declaratives: OEA (Obligatory Element is Absent) and OEP (Obligatory Elements are Present). OEA covers sentences where a referential or non-referential argument is omitted, including subjects (59)–(60), direct objects (61), complements of prepositions and predicate objects.[19] Examples of OEP on the other hand, what Platzack calls *narrative inversion*, typically have a null connective adverb in [SPEC,CP]: [20]

OEA – Obligatory Element is Absent

(59) ø Jobbade på Järnia. (ø = hon)
ø worked on Jernia (ø = she)
'She worked at Jernia.'

---

18. Platzack (2010) does discuss cases where a silent light adverb occupies [SPEC,CP]. He calls them *narrative inversion*. These are cases where a light adverb is omitted sentence initially:

~~Så~~	kom	hon	in	där,		~~så~~	kände	han	igen henne…
~~then~~	came	she	in	there		~~then~~	he	recognized	her

For these cases, a pro-analysis is not possible since the omitted element is not nominal. So, Platzack (2010) assumes that there is a silent adverbial in the lexicon, with a meaning similar to *then*. He sees this as a parallel analysis to the silent pro, which is also assumed to be present in the lexicon, in addition to the overt pronouns.

19. Interestingly, indirect objects are never dropped. I will return to this matter.

20. The examples are from Mörnsjö (2002).

(60) ø Finns inte så många sådana som man kan tänka sig att gå
ø exists not so many such which one can think REFL to go
omkring med.
around with
'There aren't so many that you could imagine wearing.'

(61) Här är pajen. $ø_i$ kan du sätta in t_i direkt i micron, om du
here is pie-the $ø_i$ can you put in t_i directly in micro-the if you
vill. (ø = den)
want (ø = it)
'Here's the pie. You can put it directly in the micro if you want.'

OEP – Obligatory Elements are Present

(62) ø Får man be konsulatet om hjälp. (ø = då)
ø may one ask consulate-the about help (ø = then)
'Then you have to ask the consulate for help.'

As illustrated by (60), expletive null subjects are attested in Swedish, provided that [SPEC,CP] is not lexicalized. As I argued for Norwegian, Mörnsjö (2002) states that Cardinaletti's analysis cannot apply to Swedish.

According to Mörnsjö (2002), the *pro* vs. operator distinction introduces unnecessary items into the discussion since it depends on how we consider V2 word order and topicalization. She claims that the only relevant difference between V1 and V2 declaratives is whether or not the phonological features of [SPEC,CP] are realized:

> The most economical analysis of V1 declaratives in Swedish would thus be to assume that the semantic and grammatical features of the phonetically non-realised element are present in Spec-CP, in order to feed the interpretation process. Lacking phonological features, this element cannot be spelled out. Consequently, the syntactic licensing of a phonetically non-realised element is identical to its visible alternative. (Mörnsjö 2002: 133–134)

Both V1 categories (OEA and OEP) are thus analysed as having a phonetically unrealized element in front of the finite verb, i.e., in [SPEC,CP]. In OEAs, either an argument selected by the verb or a structurally obligatory non-referential subject is omitted. In OEPs, the null element is determined sentence-externally and is interpreted as a frame topic conveying information about the type of relation (temporal/spatial/logical) that the OEP sentence establishes with the preceding discourse. I believe that, by and large, this insight is correct, and provides a more fruitful line of reasoning than previous generative analyses. The observation that discourse ellipses display connectivity effects lends support to Mörnsjö's view. If syntactic and semantic features are intact, such effects are expected.

For OEPs, Mörnsjö argues against the non-[SPEC,CP] analysis put forth in earlier analyses (Rögnvaldson & Thráinsson 1990; Brandt et al. 1992; Platzack 1996, 1998b). All earlier analyses argue for a missing [SPEC,CP] in OEPs; the presence/absence of the [SPEC,CP] is what distinguishes OEA (topic drop) from OEP (often called *true inversion*). Mörnsjö emphasizes, however, that an analysis where [SPEC,CP] is absent would leave no formal means for specifying the relation of an OEP sentence to the preceding discourse. I will follow her view on this point.

Mörnsjö (2002) points out that Swedish object topic drop favours 3rd person. She refers to Cardinaletti (1990) and Rizzi (1994), who argue that object topic drop is restricted to 3rd person. In 1st and 2nd person, null objects are not accepted. In their analyses, this is explained by the assumption that null subjects are *pro*, and *pro* is a pronoun, i.e., it can have all person specifications. Null objects, on the other hand, are operators, which are inherently 3rd person and hence cannot appear as 1st or 2nd person. Mörnsjö found no dropped 1st and 2nd arguments in her data, but she points out that this is probably due to pragmatic conventions rather than structural differences between *pro* and operators. As support for this view, she notes that regardless of whether the object in [SPEC,CP] is phonetically realized, the example would be equally inappropriate, so this has nothing to do with the type of empty category in [SPEC,CP].[21]

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21. Mörnsjö presents two constructed examples of object topic drop: the first one contains a null 1st person object, the second a 3rd person object. She emphasizes that both examples are acceptable, but there is a pragmatic preference for the null 3rd person object. This means that the second example below is judged to be more acceptable than the first, even though both are grammatical and pragmatically appropriate:

(1) A: Ni kommer aldrig att få tag på mig!
you come never to get grip on me
B: Jodå. ø hittar vi alldeles säkert med hjälp av polisen, oroa
oh ø find we completely surely with help by police-the worry
dig inte!
you not
'You'll never catch me! Oh, we'll surely find you with a little help from the police, don't you worry!'

(2) A: Ni kommer aldrig att få tag på tjuven!
you come never to get grip on thief-the
B: Jodå ø hittar vi alldeles säkert med hjälp av polisen, oroa
oh ø find we completely surely with help by police-the worry
dig inte!
you not
'You'll never catch the thief! Oh, we'll surely find him with a little help from the police, don't you worry!'

Mörnsjö (2002) broadens both the empirical and the theoretical focus relative to the analyses presented earlier in this chapter. She explicitly rejects the *pro* vs. operator distinction, primarily based on examples where non-arguments such as topicalized adverbials are elided. Also, she includes null expletive subjects in her account as well as non-nominal silent elements in [SPEC,CP]. Moreover, she takes into consideration pragmatic factors. For my purposes, this widening is welcome, and in the analysis I propose, I build on her insights.

Still, the narrow theoretical focus on [SPEC,CP] remains in Mörnsjö's analysis. There is no discussion of discourse ellipsis involving other positions of the clause. As discussed earlier, Norwegian discourse ellipses frequently involve omissions from positions other than [SPEC,CP]. Hence, I need to integrate these examples into my analysis. A further widening of the empirical focus is thus necessary.

Mörnsjö's (2002) analysis is that omitted elements lack phonological features, as in Distributed Morphology (Halle & Marantz 1993; Harley & Noyer 1999): they are not spelled out, but are otherwise identical to their visible counterparts. She does not develop this idea into a formal analysis, however. In the model I develop, I adopt the overall view proposed by Mörnsjö, claiming that discourse ellipses give rise to a full-fledged syntactic structure and that ellipsis is solely lack of realized phonological features. Moreover, taking this as a theoretical primitive, I intend to integrate these ideas into a formal generative analysis.

Mörnsjö's analysis does not predict when an element may or may not be silent. Although it accounts for cases where [SPEC,CP] is silent, i.e., V1 constructions, it provides no explanation for cases where it is impossible not to realize this position, i.e., cases which cannot occur as V1. I will such examples and will seek to explain them.

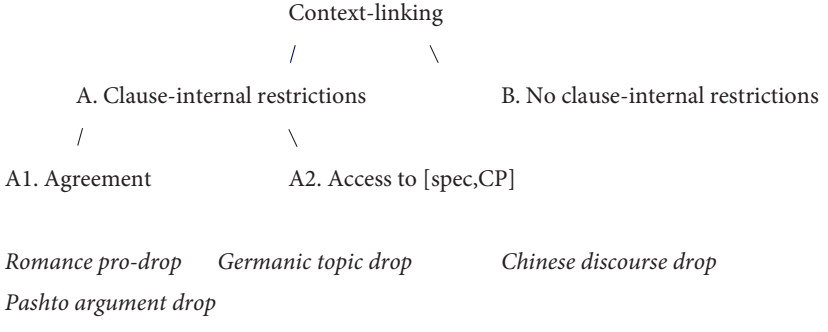
2.6 Towards a uniform approach to null arguments

Sigurðsson & Maling (2010) and Sigurðsson (2011) aim is to provide a unified analysis of null arguments cross-linguistically. This is different from Huang (1984), Cardinaletti (1990), Rizzi (1994) and Haegeman (1990, 2000), who focus on the differences between *pro* drop and topic drop as well as between topic drop of subjects and objects. Sigurðsson (2011: 268) identifies three types of referential null-subjects subject to different restrictions. Romance null subjects (*pro drop* type) are conditioned by verb agreement, whereas Germanic null subjects (*topic drop* type) are restricted to clauses with an empty [SPEC,CP]. Chinese null subjects (*discourse drop* type) are not clause-internally constrained.

When I discuss the related empirical pattern for Norwegian discourse ellipses, I will take Mörnsjö's argument as a starting point. Norwegian displays a similar distributional pattern, but I will argue that 1st and 2nd person topic drop is not possible in certain contexts.

Null objects differ with respect to clause-internal restrictions. Null objects in Pashto agree with the finite verb,[22] whereas null objects in Germanic do not, but require an empty [SPEC,CP]. Null objects in Chinese obey no clause-internal restrictions. Hence, as with null subjects, the clause-internal conditions for null objects are either agreement or access to [SPEC,CP].

Sigurðsson & Maling (2010) argue that the GB account of null arguments is not satisfactory: it does not explain the fact that silent topics differ from spelled-out ones with respect to dependency on an accessible [SPEC,CP]. Overt topics are equally acceptable whether they move to the left edge or not.[23] In GB analyses, the object trace is defined as a variable, whereas *pro* subjects are pronouns. Sigurðsson & Maling (2010: 66) seek a uniform approach to null arguments and claim that there are no underlying inherent or 'lexical' differences between them. In Sigurðsson's (2011) model, all null arguments are pronouns, and argument drop is commonly subject to both clause-external and clause-internal conditions. This explains the apparent differences between the types of null arguments:



According to Sigurðsson, all referential arguments, overt or silent, are pronouns (contrary to Huang 1984 and Cardinaletti 1990), and thus must be linked to the context to be interpreted. Germanic null topics and Romance 3rd person *pro* subjects are linked to a topic, whereas 1st and 2nd person subjects are linked to the speaker or hearer.[24] Sigurðsson postulates that the CP domain contains silent but

22. Agr-linked object drop is not very common in the world's languages, but is found in Pashto, Georgian, Swahili and Chichewa (Sigurðsson & Maling 2010).

23. This argument presupposes a particular understanding of the term *topic*. Importantly, Sigurðsson & Maling (2010) argue that topicalization does not turn anything into a topic. Rather, *topic* is understood as the element in a sentence that is presented as already existing in the discourse and that the rest of the sentence is 'about' (Trask 1993).

24. He refers to Frascarelli (2007), who presents evidence that all Italian third person null subjects must match an A-Top feature in the CP domain.

probing or syntactically active 'speaker' and 'hearer' features (the *logophoric agent* (Λ_A) and the *logophoric patient* (Λ_P), as well as Top features) (Sigurðsson 2004a, 2004b, 2011). The required matching relation between these *context-linkers* (CLn) is governed by the Context-Linking Generalization:[25]

The context-linking generalization

a. Context-linking features of the C-domain include at least Λ_A, Λ_P and Top
b. Any referential pronoun, overt or silent, positively matches a context-linking C-feature

These context-linking features thus enter into two-directional matching relations: they need to match with clause-internal elements, which may or may not be spelled out, and also clause-external topics and/or participants of the speech event.

So what distinguishes the covert from the overt ones? Sigurðsson argues that overt pronouns can match CLn features when [SPEC,CP] is filled with phonological content, as opposed to null pronouns. *Pro* subjects in Romance (ø–Iphi in Sigurðsson's terminology) behave like regular weak pronouns in this respect. 'Radically empty' null-arguments, such as the null topics (subjects and objects) in Germanic, require an empty [SPEC,CP]. Crucially, if [SPEC,CP] is filled, the null arguments cannot A′-move into this position and locally match the relevant CLn feature.

Sigurðsson's (2011) analysis predicts that dropping of referential arguments is subject to two types of restrictions: [26]

a. context-linking only, or
b. context-linking *and* some kind of clause-internal restriction

The best known clause-internal restriction is Agr-linking, as attested for *pro* subjects in Romance languages and also for null objects in, for instance, Pashto. In Germanic, however, agreement is not obligatory to identify null arguments.[27] Instead, many Germanic varieties obey another salient clause-internal restriction,

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25. Sigurðsson (2011: 282) relabels this generalization the C/Edge-Linking Generalization. As he points out, the Context-Linking Generalization is neither very controversial nor innovative. Still, it formalizes the widely accepted truism that referential pronouns, both overt and covert ones, link to or match their linguistic and/or deictic context. Furthermore, the generalization states that this linking or matching happens via the CP domain.

26. Chinese obeys solely context-linking and no clause-internal restrictions, whereas Germanic, Romance and Pashto null arguments are restricted by some combination of the two.

27. Icelandic display subject–verb agreement, while Mainland Scandinavian does not, yet null-subjects are allowed in both. Sigurðsson (2011) points out, however, that even though topic drop is not preconditioned by agreement in Germanic, agreement still constrains identification.

namely that a lexicalized [SPEC,CP] renders null arguments ungrammatical. This has traditionally been explained by the assumption that CP cannot host more than one constituent in addition to the finite verb in C. If the [SPEC,CP] is lexically filled, there is no room for a null argument. Underlying this analysis is the idea that null arguments are as syntactically active as overt arguments. Sigurðsson & Maling (2010) formalize this insight in the Empty Left Edge Condition (ELEC), proposed as a restriction on Germanic referential null arguments:

> **The Empty Left Edge Condition**
> The left edge of a clause containing a silent referential argument must be phonetically empty (in language or construction X)

ELEC predicts that context-linking of null arguments is blocked in Germanic if [SPEC,CP] is lexicalized. Sigurðsson starts from the hypothesis that Germanic null arguments must be context-linked under strict locality, i.e., they need to move into the CP domain to be able to locally match the relevant CLn.

This means that Italian *pro* resembles overt pronouns more than 'true nulls' in Germanic. Consequently, structural licensing does not distinguish between Italian ø-Iphi and German weak pronouns. Still, Sigurðsson emphasizes that pronouns in all languages must be successfully context-linked. The difference is that the nulls in Germanic must rise into the CP domain in order to fulfil the context-linking requirement, unlike the nulls in Romance. Also, weak pronouns in Germanic are acceptable both when the [SPEC,CP] is lexicalized and when it is not. The traditional GB approach, also called the A′-A approach, was based on the difference between operators and NP-traces. It accounted for the fact that Germanic topic drop clauses cannot have [SPEC,CP] lexicalized by movement. Hence, it is fair to say that Sigurðsson accepts the essence of this approach. Still, he points out that Germanic topic drop appears to obey constraints that are more fine-grained than those observed for overtly moved A′-moved constituents (see also Cardinaletti 1990 and Mörnsjö 2002).

Sigurðsson emphasizes that regardless of the grammatical content of the constituent in [SPEC,CP], the spelling out of the phonological matrix blocks context-linking of the null arguments. The intervention effect seems to be simultaneously structural and phonological. If such left edge emptiness conditions are purely syntactic, it is remarkable that there are no similar conditions constraining overt objects (Sigurðsson & Maling 2010). Yet, overt pronouns are obviously not 'disturbed' by lexicalized left edge elements. Apparently, ELEC is not purely a syntactic restriction, but instead applies at PF.

2.7 The need for an empirical and theoretical broadening

As outlined, most generative analyses of null elements primarily consider the omission of referential arguments, focussing on the inherent differences between the null argument *pro* in Romance and the operator involved in Germanic topic drop constructions. For Germanic, the analyses have been concerned with topicalized referential subjects and objects (Huang 1984; Cardinaletti 1990; Rizzi 1994; Platzack 1998a; Haegeman 1990, 1997, 2000, 2007; Mörnsjö 2002; Sigurðsson & Maling 2010; Sigurðsson 2011). Null expletives are for the most part not considered, with the exception of Mörnsjö's (2002) work.[28] Furthermore, for Germanic languages, the specifier of CP is singled out as the one licensing position for null elements, the position in which it is possible to find a null constituent. In these analyses, topic drop is equivalent to the non-realization of [SPEC,CP]. The general approach has been to postulate a discourse-bound operator in this position, binding a null variable in the subject or object position (Huang 1984). Alternatively, null objects have been given an operator analysis, whereas Germanic null subjects have been analysed as NPs moving to [SPEC,CP] (Cardinaletti 1990).

If we consider a slightly broader range of data, it becomes obvious that this focus is too narrow. Omission of referential arguments from [SPEC,CP] is frequent, yet discourse ellipsis is not limited to silent topicalized arguments. Other kinds of omissions are frequently attested. In (63), a fronted expletive subject is omitted, in (64) both a referential subject and a finite auxiliary are elided, and in (65) an expletive subject and an auxiliary are omitted. (66) displays ellipsis of a referential subject and a copula verb, and (67) shows omission of an expletive subject and a copula verb.[29] Finally, (68) illustrates discourse ellipsis in which a topicalized adverbial is elided:

(63) ~~Det~~ sto et eller annet om "rebooting" og sånn på skjermen.
~~it~~ said something about "rebooting" and such on screen-the
'It said something about "rebooting" and stuff on the screen.' NoTa

(64) ~~Jeg har~~ vært i masse slåsskamper på barneskolen.
~~I have~~ been in lots of fights in primary-school-the
'I have been in lots of fight when I went to primary school.' NoTa

(65) ~~Det hadde~~ vært litt artig å holde på med musikk. NDC
~~it had~~ been a little fun to deal with music
'It would be quite fun to work with music.'

28. See also Engdahl (2012) for an analysis of optionally realized expletive subjects in Swedish.

29. The status of the subject in (65) as an expletive and the status of the verbs in (66) and (67) as copula verbs might be a matter of discussion. Some might argue that they should be characterized differently. I have chosen to label these expletive subjects and copula verbs. In any case, this is not of major importance to my overall analysis.

(66) ~~Jeg er~~ født i Tromsø og oppvokst her. NDC
~~I am~~ born in Tromsø and grown up here
'I am born and raised in Tromsø.'

(67) ~~Det er~~ svært stor forskjell på klientellet tror jeg altså.
~~it is~~ very large difference on clientele-the think I so
'The clientele is very varied, I really believe.' NoTa

(68) ~~Så~~ setter dem seg der og drikker kaffe mens dem liksom setter
~~so sit~~ them self there and drink coffee while they like set
på karakterene til oss. NoTa
on grades-the for us
'Then they just sit down and drink coffee while they like decide our grades.'

It is thus fair to say that discourse ellipsis seems to be empirically broader-ranging than what is assumed in the topic drop family of generative analyses.

Two solutions are possible. One could assume that the topic drop analyses are correct and that additional explanation is needed for the data in (63)–(68). This would lead to two separate analyses, one for topic drop phenomena and one for the other data. However, following Occam's razor, one should seek to reduce the explanatory possibilities to a minimum and aim for a unified explanation for all discourse ellipsis types. Two proposals have a broader empirical basis than the one in the topic drop group: Napoli (1982) and Fitzpatrick (2006). Napoli (1982) argues for a phonological deletion account of various kinds of sentence initial discourse ellipses in English, whereas Fitzpatrick (2006) proposes an analysis of auxiliary drop in English. Both consider data in which elements other than a sentence initial subject or object are omitted. I will present their insights in Chapter 7, when I investigate the restrictions on licensing of discourse ellipses.

The most recent work on argument drop is found in Sigurðsson (2011). This analysis is elaborate and precise, yet it accounts for the same data as previous generative analyses (referential argument drop from [SPEC,CP]), albeit within a modern minimalist frame. There is no discussion of ellipses in which non-arguments are silent and where elements in positions other than [SPEC,CP] are not phonologically realized. It thus appears that both empirically and theoretically, Sigurðsson's analysis is too restricted to account for the variety of discourse ellipses. Mörnsjö (2002) attempted to broaden the empirical focus slightly, including dropping of expletives and, importantly, topicalized adverbials. Still, the strict focus on [SPEC,CP] is upheld. I argue that the empirical focus needs to be broadened.[30]

30. For a critical discussion of Sigurðsson's (2011) analysis, see van Gelderen (2013). She points out that one fact that remains unclear in Sigurðsson's account is the character of the topic in Germanic and the licensing in English. To clarify these issues, she investigates data from Old English and compares them to Modern English. The main conclusion reached is that with respect

Despite the shortcomings of these previous analyses, some yield useful theoretical insights I will adopt. This concerns above all Mörnsjö's (2002) assumption that the omissions are purely phonological. Rather than focusing solely on the type of empty category in [SPEC,CP] and the syntactic licensing restrictions on this null argument, Mörnsjö (2002) argues that the *pro* vs. operator discussion is irrelevant and that the surface variation is due to differences in phonological realization. I endorse this conclusion and argue that topic drop is a subtype of discourse ellipsis, i.e. that the ellipsis affects only the phonological component and does not alter the narrow syntax.[31]

A central claim in Sigurðsson (2011) is that all null arguments are uniform in nature: "[h]ere, I will explore and argue for a unified minimalist approach to referential null arguments, where all types of (overt and silent) definite arguments require C/edge linking." (269).[32] This entails that all differences between lexical elements are due to factors external to the items themselves. However, if all null elements are alike, it is hard to explain why some display connectivity effects, while others do not. Null subjects typically show agreement with verbs or with anaphoric elements, yet this is not the case for null objects. In this respect, Sigurðsson's claim is diametrically opposed to my argument. I claim that null elements are identical to their overt counterparts and have all relevant syntactic properties; the only difference is that they are not phonologically realized. I will thus adopt the main argument of Mörnsjö (2002). This means that just as overt subjects agree with anaphors, null subjects do, too. Objects and null objects do not show similar effects. Under an analysis in which deletion targets only the phonology of a constituent, this follows directly.

Sigurðsson's analysis entails that null elements do not carry with them any formal properties when they enter syntax. All properties of empty categories are defined in the structural position, by the structural context, in a way that resembles Chomsky's (1986b) proposal. Importantly, the properties are not contributed by the

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to null subjects, Old English patterns with Italian (i.e. *pro* drop licensed by rich agreement) and Modern English patterns with Germanic, where movement of the null topic to the C-domain is necessary for licensing a null subject.

31. Even though I will reject the empty categories traditionally assumed to categorize discourse related null arguments, I do not reject all empty categories assumed in generative theory, such as *pro*, PRO, traces (or copies) and variables. My argument concerns the categories proposed for discourse related null arguments in [SPEC,CP]. This insight follows from my general argument that syntax is intact and ellipsis occurs in phonology. The empty categories mentioned belong to the syntactic component, resulting from processes and restrictions in narrow syntax. Discourse ellipses, on the other hand, occur in PF. At the point of spell out, when the sound is, or is not, turned on, the nature of the syntactically empty categories (*pro*, PRO, traces/copies and variables) is already defined. This does not hold for discourse ellipses.

32. As noted, C/edge linking is another term for context linking.

lexical item itself. This is contrary to what I assume. In my analysis, null elements are parallel to their non-silent counterpart. They carry with them all relevant properties, as if they were overt. I assume that these null arguments have morphosyntactic features as well as phonological features. The morphosyntactic features are realized in the same way as in a non-elliptical sentence; the phonological features are present as a potential and the structure and the context define whether it is possible for them to be silent.

Following Mörnsjö (2002), I argue that all grammatical categories are present precisely as in a sentence with no dropped elements. This view entails that the previous theories discussing the nature of the empty category in [SPEC,CP] are irrelevant; there are no designated empty categories in [SPEC,CP]. There are only ordinary syntactic derivations, displaying differences in the phonological component. Crucially, Mörnsjö's (2002) theory challenges the premises of a whole line of theories about the nature of the null argument in [SPEC,CP] (Huang 1984; Cardinaletti 1990; Rizzi 1994; Haegeman 1990, 2000 among others). She argues that there are no designated empty categories, only PF-deletion. I agree and will follow Mörnsjö's (2002) argument that discourse ellipsis is a matter of phonology, more specifically related to the syntax–phonology interface. A discourse ellipsis is structurally parallel to its non-elliptical counterpart; hence, the omission is not structural, but phonological.

In this respect, my analysis shares significant elements with the Copy theory of movement of Nunes (1995, 2004). The displacement aspect of this theory is not relevant for my purposes. What *is* relevant is the assumption that a copy represents a full-fledged version of an element, but a version not necessarily realized with sound. Whether or not a copy is phonologically instantiated is decided by factors external to the element itself; crucially, a silent copy is structurally equal to its realized counterpart.

Whereas Sigurðsson's (2011) proposes that null elements lack phonological features, and that this is the reason they are silent,[33] Nunes' Copy Theory holds that a silent copy retains all its features, including the phonological ones, all the way through the syntactic derivation. While some copies are pronounced and others are not, this has nothing to do with the internal feature specification of the copy.[34] In

33. It appears that, for Sigurðsson, silence is due to a lack of phonological features. This view seems to contradict Chomsky's (1995: 230) claim that lexical items contain three types of features (semantic, formal and phonological), and that what distinguishes them is that the phonological ones only receive an interpretation at the A-P interface, not at the C-I interface.

34. One could envision an analysis where a copy is defined as a constituent that has some, but not all (i.e., not phonological), features inserted. Then the difference between the two views (Nunes and Sigurðsson) is neutralized (an analysis which assumes something along these lines is found in Embick & Noyer 2001).

his rejection of trace theory in favour of Copy theory, Nunes (1995, 2004) presents different scenarios for the phonological realization of copies. One is that only the chain head, i.e., the highest copy, is realized; another is that several or all copies are realized at once; a third alternative is that only a lower copy is realized, and a fourth is that part of the copy is realized in one position, and the remaining part in another position (scattered deletion). As I see it, there is a scenario missing from Nunes' account, the one where none of the copies are phonologically realized. This scenario is the one I will be investigating. I will assume that a non-realization of all copies in a chain is what happens in discourse ellipsis, and I will investigate the restrictions for this.

Note that in recent versions of the minimalist program, it has been argued – with empirical support – that certain areas of derivation that previously were assumed to be handled by the syntactic component, are now handled by PF. One example of this is the V2-requirement. I will not argue against such a view, because I believe that it is compatible with the analysis argued for in this book, only it is formalized differently. One might argue that it would be å good strategy the account for discourse ellipses as syntactic structures generated by the narrow syntax, but that the structures must meet PF requirements.[35] Obviously, a consideration of the interaction between V2 and PF could lead to new insights, also with regard to discourse ellipses. However, these issues are discussed in the analysis in Chapter 7, and therefore I will not pursue it any further.

It appears that the restrictions on phonological realization are influenced both by pragmatic and structural factors. I thus follow Sigurðsson's (2011) conclusion that intervention effects such as the Empty Left Edge Condition (Sigurðsson & Maling 2010) are simultaneously structural and phonological. Hence, even though the deletion in discourse ellipses is phonological, affecting only the phonology of the elided item, the licensing is clearly structurally governed. This entails that defining discourse ellipsis as a non-syntactic phenomenon, i.e., as obeying only restrictions outside narrow syntax, would be a mistake.

In what follows, I will present an analysis of discourse ellipses, aiming to cover all the ellipsis types displayed in (63)–(68). The model seeks to answer two questions: what is the structure of discourse ellipses, and what are the restrictions on licensing of ellipses? Before I present the details of the analysis, however, in the next chapter I settle some fundamental issues concerning the nature of the model.

35. I thank an anonymous reviewer for pointing this out.

CHAPTER 3

Foundations of a grammar model

This chapter lays the groundwork for my theoretical proposal. Since the relationship between form and meaning may appear distorted in ellipsis and contextual information is essential in interpretation, it is important to specify how the workload is divided between contextual and strictly linguistic information. Is the silent material linguistically encoded or does its processing require only a conceptual basis?

I start out by presenting a selective theory of semantics (Bouchard 1995). The schism between two types of grammar models – lexically-driven models and exoskeletal models assuming late lexical insertion – is highlighted. I conclude that the latter is preferable and that this has positive implications for the derivation of ellipses. This implies that lexical items (morphemes) do not motivate sentence structure; syntactic structure is abstractly motivated. It will be a goal in this chapter to discuss how this abstract motivation happens, and what are the building blocks of Merge when it is not lexical elements.

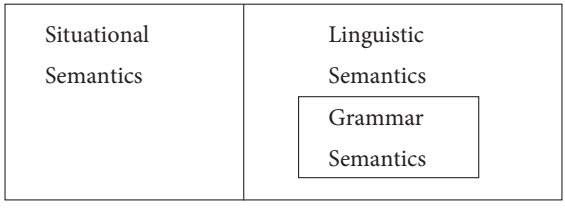
3.1 A selective approach to meaning: Grammar semantics

Bouchard (1995) argues that situational aspects of meaning should be excluded from grammar; only a small, abstract part of meaning is relevant for grammar: "most linguistic theories are based on the wrong semantics. They are GLOBAL approaches to semantics, in that they, to a large extent, incorporate information that is part of the background knowledge shared by speakers." (3).

Three tasks are traditionally attributed to semantics: the meaning of words, phrases and sentences; properties such as synonymy, entailment, and inconsistency; and the mapping of semantic meaning onto syntactic structures. In global theories of semantics, these tasks are accomplished by the *same* semantic representation. This makes the semantic representation very complex, entailing three main problems: semantic symbols with no syntactic equivalent, an indirect syntax-semantics correspondence and distortion of some of the dominance relations (Bouchard 1995: 10). Consequently, regularity in the *linking* between semantics and syntax is not predicted.

Bouchard argues for a selective approach where the task of representing meaning is allocated to different compartments with different formats. The result is a simpler, theoretically less costly analysis, where all situational aspects of meaning

are removed from grammar. Fundamental to this approach is that contextual information is not excluded from all meaning building. Language is not used in a vacuum and since language users have access to context, this information must not be conveyed by language itself. The language "only provides a very abstract outline of events and we use our shared background knowledge to fill in the details" (Bouchard 1995: 8). So, background information is important for interpretation; it is simply not relevant for the grammatical derivation. The following model is proposed for the cognitive representation of meaning, i.e., the Conceptual Structure (Bouchard 1995: 17):



Conceptual structure

Situational semantics (S-SEMANTICS) refers to general cognitive capacities and has no direct bearing on linguistic analysis. This level of meaning concerns conceptual knowledge and background information that is not linguistically relevant (Bouchard 1995: 17). The two linguistically relevant levels are *Linguistic Semantics* (L-semantics),[1] which includes information about logical entailment, and *Grammar Semantics* (G-SEMANTICS), the level relevant for grammar. S-SEMANTICS, on the other hand, influences only the situation-specific information, and is irrelevant for grammatical structure.[2]

Recall Chomsky's famous example *Colorless green ideas sleep furiously*, which is traditionally assumed to be syntactically but not semantically well-formed. Bouchard (1995: 44) claims that this sentence is unacceptable at the level of S-SEMANTICS because it is hard to find elements that fit the descriptions. The problem is one of conceptualization/reference, not meaning. That is to say, the sentence

1. I do not have anything more to say about L-semantics apart from Grammar Semantics, as the content of this part of meaning has little significance for the analysis of my data.

2. The distinction between two kinds of semantics, content and use, has a long tradition in linguistics. Bouchard (1995: 40–42) refers to Strawson (1971) and the old problem of distinguishing sense from reference, Strawson's point being that truth and falsity are characteristics of the uses of a sentence, not of the sentence itself. He also mentions Hjelmslev (1961) as a predecessor of his view. What is important is *how* ideas are expressed by the linguistic system, not the intuitive interpretations of a situation, or what the situation expressed.

is semantically well-formed, but only at the level of G-SEMANTICS. Bouchard opts for a shift from autonomous syntax to autonomous grammar. The cut-off point for the autonomy of grammar is no longer between syntax and semantics, but between two types of semantics, G-SEMANTICS and S-SEMANTICS.

> The autonomy of Grammar is usually assumed in terms of the autonomy of syntax from meaning. This is not a possible definition in my approach because the representations themselves have meaning. The nature of autonomy must therefore be reassessed. (Bouchard 1995: 4)

Bouchard (1995: 16) maintains that syntactic and G-SEMANTIC representations are in a homomorphic relation and that the very form of semantic representation has meaning. This form is the syntax. The idea of a purely formal syntax is thus rejected. All linguistic form is meaningful[3] and everything present in syntax must also be present in semantics. This is expressed in the principle of Full Identification (Bouchard 1995: 22):[4]

> **Principle of Full Identification**
> Every (morpho)-syntactic formative of a sentence must have a corresponding element in the semantic[5] representation. Every formative of a semantic representation must be identified by a (morpho-)syntactic element in the sentence, which is associated with that representation. [my footnote]

G-SEMANTIC properties map directly onto syntactic structures, and all compositional properties of syntax are correlated with properties of G-SEMANTICS. All structure-building processes are by definition meaningful and each level in the

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3. A mathematical analogy is presented as support: David Hilbert attempted to relate mathematical order to a purely formal system (Bouchard 1995: 65). The attempt failed, and it is now assumed that mathematical objects bear a certain semantic load; they cannot be reduced to simple forms of organization. Mathematics is formal, but not simply formalistic since the forms studied are derived from human activities and are used to understand those activities. Bouchard proposes a parallel view of natural language.

4. At first glance, this principle may look similar to Chomsky's (1986a) principle of Full Interpretation, which requires every element of PF and LF to receive an appropriate interpretation. However, according to Bouchard (1995: 93–94) the two principles differ in one important respect: "in Chomsky's Full Interpretation, it is only the syntactic formatives that must be licensed, whereas Full Identification is a constraint on both syntactic and semantic formatives." Hence, Bouchard's model requires licensing of both syntactic and semantic formatives.

5. By semantic representation, Bouchard here intends a G-SEMANTIC, not an S-SEMANTIC representation. S- semantics have no direct bearing on syntax. On these grounds, theta roles are rejected. They are situational and belong to the wrong semantics, hence they have no grammatical relevance (Bouchard 1995: 41–45).

tree corresponds to a semantic element. Syntax is the formal tool for expressing the G-SEMANTIC relationships between different elements. Interestingly, this patterns with a view expressed in Chomsky (2000c: 74): "[m]ost of what's called 'semantics' is […] syntax." In a purely formal approach, syntax would consist of structures void of content. Syntactic relations would be abstract arbitrary relations between nodes and structure building mechanisms would be blind construction procedures. Yet, if form has meaning, structural relations express actual relations between specific elements. A syntactic tree is then more than just a formal representation, and all subparts of grammar express some kind of meaning: "[t]he formalism that I adopt has meaning, as all formalisms do: there is a semantics to syntax" (Bouchard 1995: 68).[6]

3.2 A weak interpretation of the principle of full identification

The principle of Full Identification dictates that all semantic primitives be identified by morphosyntactic elements. Bouchard (1995: 75) thus takes a *strong* position with respect to the syntax-semantics correspondence. He explicitly rejects any syntactic node that is not semantically licensed.[7] All nodes must be semantically motivated and phonologically realized, i.e., all projections and all nodes must correspond to a G-SEMANTIC element. This entails that vacuous projections are illicit,[8] since empty nodes have no semantic content, but only function as potential landing sites for movement.[9] Moreover, the principle dictates that every node in a syntactico-semantic representation be filled with phonologically realized linguistic material. In this respect, the system is quite strict. Indeed, it is my claim that in certain respects it is too strict since it fails to account for some data.

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6. The idea that syntax cannot be strictly formal is also put forth in Crane (1990), in the field of philosophy. The main focus of this article is the language of thought, but the general claim remains the same: there can be no syntax if there is no semantics.

7. Bouchard claims that this is a general development in generative grammar, exemplified by the system in Chomsky (1986b), which has the property that syntactic structure is given. Some nodes and projections are semantically licenced, whereas others are licensed by geometric properties of X′-theory.

8. This contradicts the long generative tradition of assuming empty elements of various kinds.

9. This also entails a rejection of X′-theory.[9] The Principle of Full Identification does not allow for three levels of phrase structure to project from only one single word. There can be no more structure than the lexical elements directly motivate. This view is consistent with the idea of Bare Phrase Structure, as outlined in Chomsky (1995). The number of bar levels is then dependent on the number of bar constituents with which the head and its projections entertain semantic relations.

I adopt Bouchard's idea that a syntactic node cannot be radically empty. A projection must project from something; it must be endocentric (Stowell 1981). A syntactic node contains different features: phonological, semantic and formal (Kitahara 1997). Yet, under Bouchard's view, a purely formal or uninterpretable feature cannot be assumed. I will therefore distinguish between phonological features and syntactic or G-SEMANTIC features, the latter including both Kitahara's formal and semantic features. Contrary to Bouchard and following Åfarli (2001), I propose that phonologically vacuous projections may be postulated as long as they are not G-semantically vacuous.[10]

A consequence of Bouchard's theory is that structurally related sentences may end up with different syntactic structures. Consider the following pairs, variants of the same sentences, the only difference being the presence/absence of *som* 'which'/'that' and *at* 'that':[11]

(69) a. Jeg liker den boka som /__ du gav meg til jul.
I like that book-the which/__ you gave me for Christmas
'I like the book that you gave me for Christmas.'

b. Jeg ser at/__ hun sliter med leksene.
I see that/__ she struggles with homework-the
'I can see that she is struggling with her homework.'

If one were to accept Bouchard's strong version of the Principle of Full Identification, syntactic structure would project directly from phonologically instantiated lexical items. One would then be forced to ascribe different syntactic representations to these parallel sentences since, in this model, all structure must be motivated from phonetically realized elements. In (69a), *som* and *at* would give rise to syntactic structure, whereas in (69b), there would be no corresponding structure. The phrase structure of the two variants would thus be distinct. Bouchard's principle prevents a simple explanation of the close structural relationship between these sentences. Therefore, Åfarli (2001) suggests a distinction between a strong and weak interpretation of the Principle of Full Identification, where a weak interpretation states that a morpho-syntactic element may not necessarily be instantiated as a phonologically realized element. Under this interpretation, the close structural relationship between (69a) and (69b) can be upheld.

This is relevant for ellipsis. Traditionally, an elliptical construction was considered an amputation of a richer structure or sentence (Trask 1993). Another

10. There are also restrictions on which elements need not be phonetically instantiated, but for now I will postpone that discussion.

11. In the literature, these cases are described as PF-deletion (Åfarli & Eide 2003). Hence, the words are assumed to be present in both sentences, and the underlying syntactic structures are identical.

theoretical possibility is that ellipsis does not hide any information or structure other than what is directly indicated by the phonologically instantiated elements: what you see is what you get.[12] Bouchard's model must assume this second view since the principle of Full Identification excludes all structures not phonetically motivated. However, most ellipses have a non-elliptical counterpart, with what intuitively seems to be a parallel syntactic structure. Under Bouchard's analysis, a parallel structure would not account for the elliptical and the non-elliptical cases since only phonologically instantiated elements can give rise to syntactic structure. This point is clearly demonstrated in the following set of data from newspaper headlines (Fjeldstad 2000):

(70) Familien på drapsstedet
family-the on murder-site-the
'The family on the murdersite.'

a. DP: Ikke familien på drapsstedet / *Familien ikke på drapsstedet
not family-the on murder-site-the family-the not on murder-site-the

b. Clause: *Ikke familien på drapsstedet / Familien ikke på drapsstedet.
not family-the on murder-site-the family not on murder-site-the

The headline in (70) is ambiguous between a clause interpretation where the verb is elided and a DP interpretation. Relevant for our purposes is the clause interpretation. The question is whether such fragments give rise to full sentence structures. I argue that they do. This is obvious in the distribution of the sentence adverbial of negation. Under a DP interpretation, the negation must occur to the left of the whole phrase. Under a clause interpretation, the first noun, i.e. the subject, must precede negation. Importantly, the sentence adverbial occurs in a position parallel to that of a regular main clause, and not to that in an independent DP.

This distribution is easily explained if we assume a full underlying sentence structure for these headlines. Then the distribution in the clausal interpretation is explained by assuming that negation is adjoined to T′[13] and the subject moves across negation when it moves from [SPEC,PrP][14] to [SPEC,TP] and further to [SPEC,CP]. We also assume movement of the elided finite verb from T to C:

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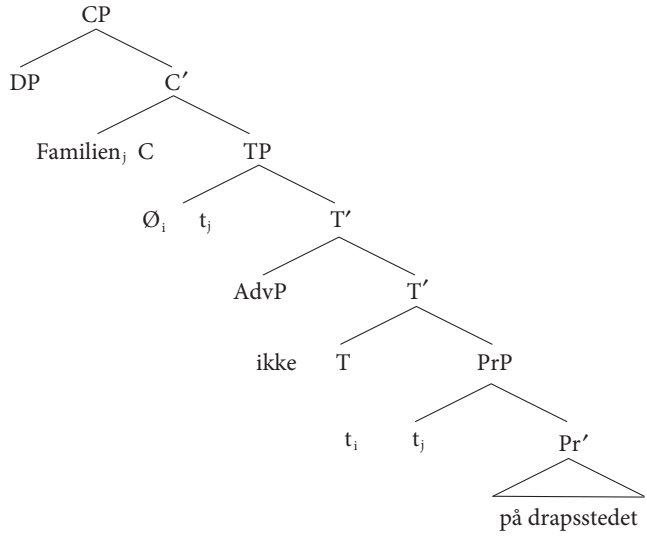
12. This is argued in Culicover & Jackendoff (2005). Under this view, *ellipsis* implies that something is missing.

13. I base this assumption on the analysis proposed by Holmberg and Platzack (1995), where the position of negation is argued to be the same as the position of sentence adverbials in Scandinavian.

14. PrP is a predication projection, which occupies the same syntactic position as little vP. I have chosen PrP because it is semantically motivated. I present this projection in more detail in Chapter 4.

(71)



Under a strict interpretation of Bouchard's Principle of Full Identification, this explanation is not possible. The silent verb could not give rise to a structural position; there would be no reason to assume distinct phrase structures for the two interpretations and the distribution of the sentence adverbial would remain a mystery. A weak interpretation, on the other hand, offers the possibility that a morpho-syntactic element may not necessarily be instantiated by a phonetically expressed element. This interpretation is therefore preferred. In what follows, the weak interpretation of Full Identification will lay the grounds for the model I propose. We can keep Bouchard's principle to govern the relation between abstract G-SEMANTIC representations and their (equally abstract) syntactic organization, the two sides of the abstract syntactic-semantic representation. However, we do not assume it governs the relation between the syntactic-semantic representation and the visible string instantiating it. More specifically, this assumes underlying abstract syntactic-semantic representations under the 'outer' phonetic realization of a sentence, referred to as *separationism* (Harley & Noyer 1999; Åfarli 2001; Borer 2003, 2005a, b).

Separationism posits that syntactic structure is separated from its phonetic instantiation: the relation between syntax-semantics and phonology is not one-to-one:

> Separationism characterizes theories of morphology in which the mechanisms for producing the form of syntactico-semantically complex expressions are separated from, and not necessarily in a simple correspondence with, the mechanisms which produce the form ("spelling") of the corresponding phonological expression.
>
> (Harley & Noyer 1999: 7)

Separationist theories distinguish the mechanisms that produce the syntactico-semantic form of an expression from the mechanisms that produce its phonological

form (Harley & Noyer 1999). Syntax is not constructed from phonetically realized elements, but rather from morphemes with abstract syntactic and morphological content. Phonological information is stored in vocabulary items, which are inserted late into the abstract syntax.

The assumption that the representation of a sentence can contain phonologically unrealized elements is in itself not revolutionary. Yet, the postulation of empty elements is often met by scepticism; if a linguistic explanation can do without such elements, it is often considered superior. According to Nygård, Eide & Åfarli (2008), the motivation for this may be found in the strong influence of de Saussure's notion of the linguistic sign. Following de Saussure, a sign is defined as a conventional association of form and meaning (Sag & Wasow 1999: 356). A sign therefore always has two sides, form and content, and these two sides are closely related: one cannot appear without the other. Bouchard (1995) offers a modern version of the same view. The ideal is homomorphy between meaning and form, semantic content and phonological expression. Culicover and Jackendoff (2005: 537) propose a similar point of view: a syntactic component with no movement, no null elements, no projections of functional categories and no other 'excess nodes'. However, as I have demonstrated, such strict sign-based models of linguistic structure cannot account for the range of elliptical data. Separationist theories, however, can explain such data.[15] In the remainder of this chapter, I present arguments for a separationist view in the lexical domain. In the next chapter, I argue that this view should also be extended to the functional domain.

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15. Separationist theories are attractive because they allow for multiinsertion and multifunctionality (Harley & Noyer 1999: 7; Åfarli 2001). Multiinsertion means that different phonological forms can be used to instantiate the same syntactic node. This is demonstrated in (1), where two distinct complementizers are inserted into otherwise identical structures. Multifunctionality means that the same phonological expression can be inserted into different syntactic nodes with unrelated functions, as in (2), where the lexical item *som* is used as a question complementizer (a) or as a predicational operator (b):

(1) Hvem sa du at/som kom?
who said you that came

(2) a. Hun vet hvem som kom.
she knows who that came
'She knows who came.'

b. Hun betrakter bilen sin som utrygg.
she considers car-the hers as unsafe
'She considers her car not to be safe.'

These two phenomena show that the relationship between syntactic-semantic structure and phonological realization is not always direct. Thus, they are arguments for a separationist mode. Note, however, that to yield interesting theoretical predictions with respect to the possible variation between syntactic-semantic form and phonological form, it is crucial that the analyses are restrictive (Harley & Noyer 1999: 7).

Theories that embrace separationism include distributed morphology (Halle & Marantz 1993; Harley & Noyer 1999) and neo-constructionism (Hale & Keyser 1993, 2002; Borer 2003, 2005a, b; Åfarli 2007; Brøseth 2007; Embick & Noyer 2007; Lohndal 2012). They differ in many respects, but share one fundamental assumption: that syntactic structure does not grow out of phonologically instantiated lexical elements, instantiation here meaning a concrete phonological representation of an abstract structure.[16] Rather, the insertion of these elements happens after syntactic structure is generated. In distributed morphology, this is called *late insertion*. However, this term can be interpreted in two different ways. Is it late insertion of lexical elements into an abstract syntactic frame, or is it late phonological instantiation of abstract lexical items in a syntactic frame? If the latter, this is no different from the mainstream view in minimalist models, in which syntax is not instantiated until Spell Out. The former, on the other hand, suggests that it is the lexical elements that are inserted late into abstract syntactic frames. This interpretation prevails in the theoretical models outlined in this section and I will adopt it in the analytical model I present.[17] A more elaborate discussion of the details of an exoskeletal model of the clause is presented in Chapter 4.

3.3 Endoskeletal versus exoskeletal theories

Borer (2005a, b) embraces a separationist approach, establishing a fundamental distinction between two grammar models. Endoskeletal models define the lexicon as the central source of syntactic structure and exoskeletal models define syntax as primary and lexical insertion as secondary. In what follows, I discuss the endoskeletal view and point out certain issues not easily accounted for in such a model. Thereafter, I argue for the exoskeletal alternative.

3.3.1 Lexically driven grammars

Both Government & Binding and Minimalism are endoskeletal theories of grammar. In these frameworks, syntactic structure is largely lexically driven in that it is

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16. The specific relationship between structure and phonological instantiation will be explored in the following chapter. Therefore, I will not discuss it any further here.

17. The model I propose shares fundamental characteristics with the theory of Distributed Morphology. Yet I also draw heavily on neo-constructional theories, in particular the idea of syntactic templates. Åfarli/Subbarao (forthc.) suggest a similar combination of ideas, which they label EFM (an exoskeletal frame model in many ways similar to my view). There are minor differences in these two models with respect to feature matrices.

derived from the content of the lexical elements. Lexical and functional words or morphemes constitute the base for lexical and functional projections. The roots of the lexicalist view may be traced to Chomsky (1970), where the difference between derived and gerundive nominal is given a lexical rather than a syntactic explanation. Chomsky (1970) concludes that syntactic structure has its basis in lexical information. This assumption has had a strong impact on generative theory. As Borer (2003: 31)points out, "[w]ithin generative theories, the dominant approach to the projection of argument structure crucially links it to information in the lexical entry of argument selecting heads (verbs, adjectives, possibly nouns)."

In GB-theory, the lexicalist view is manifested in the Projection Principle and the Theta Criterion, which state that the argument structure of a lexical head projects into syntax (Chomsky 1981a). Information stored in lexical items thus determines syntactic structure: "Syntacticians are accustomed to specifying the theta-grid of a lexical item and to having this grid determine the syntactic structure that the word appears in" (Baker 2003: 95). Aitchison (2003: 125) says that "[v]erbs dominate a sentence and dictate its structure." In the GB model, the verbs *kjøpe* 'buy' and *snorke* 'snore' will have the following argument structures:

kjøpe 'buy', V: $\underline{\theta}$, θ
snorke 'snore', V: $\underline{\theta}$

(72) Bestemor kjøper svisker
grandma buys prunes

(73) Bestemor snorker.
grandma snores

Thus, *kjøpe* 'buy' assigns two theta-roles. The Projection Principle dictates that these roles be realized as arguments in the structure, as the subject and direct object, as in (72). Moreover, the Theta-Criterion assures that a theta-role can only be assigned to one DP and vice versa. *Snorke* 'snore' assigns only one external theta-role, which, following the Projection Principle and the Theta-Criterion, must be realized as a subject, as in (73).

The Minimalist Program takes an even more lexicalist stand, assuming that all information in a syntactic structure is given in the lexical elements. This is manifested in the Inclusiveness Condition, which states that syntactic structure can include no more than what is specified in the numeration. The numeration consists of the selected lexical items or grammatical features for a specific derivation (Kitahara 1997). Mainstream Minimalism (e.g. Chomsky 1995) is lexicalist in that lexical items are ascribed numerous properties, which are projected into syntax, where they have a number of syntactic effects.[18]

18. Arguments in favor of lexicalist grammar are found in Reinhart (2002) and Levin & Rappaport Hovav (2005).

Several scholars have argued against lexically driven grammars and in favour of an exoskeletal view (Hale and Kayser 2002; Borer 2005a, b; Lohndal 2012).[19] In what follows, I present two arguments against lexical approaches. Both are related to the flexibility of verbs. The first group are so-called made-up verbs, "verbs that seem to lack a semantic-conceptual content that can trigger the formation of a lexical-semantic argument structure specification" (Åfarli 2007: 6), e.g., verbs constructed on the basis of nouns:

(74) Snart kan du tekste enda raskere.[20]
soon can you text even quicker
'Soon you will be able to write text messages even quicker.'

(75) Elgkalver *flaskes* opp på kumelk.[21]
moose calves are bottled up on cow milk
'Moose calves are fed with cow milk.'

(76) This problem has *dogged* us for a long time (Baker 2003)

(77) Du skal vel bare tante deg i dag, du.[22]
you shall well only aunt you_{REFL} today you.
'You are probably going to do nothing but be an aunty today, aren't you?'

(78) Jeg skal nave et år. Du har trygda, du?[23]
I shall dole one year you have doled you
'I'm going to get money from NAV (Social Security Service) for a year. You have received unemployment benefits, haven't you?'

(79) Det å få noen i regjeringen til å betale for
that to get someone in government-the to pay for your
dine næringslivssatsinger, er kjent som
commercial investments is known as
å Støre.[24]
to Støre (name of the Norwegian minister for foreign affairs as of 2012)
'Getting someone in the government to pay for your commercial investments is known as *to Støre*.'

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19. There are also scholars who argue specifically agains the exoskeletal view and defend a lexical approach to argument structure. See e.g. Müller and Wechsler (2014) for an overview.

20. Online headline from Amobil.mo/artikler, accessed 14.06.2011

21. Online headline from dyreparken.no/Nyheter/Arkiv, 16.08.2008

22. Authentic sms received 15.04.2012

23. Example taken from the Norwegian TV-show *Nytt på nytt*¸ 13.04.2012.

24. Example taken from the Norwegian TV-show *Nytt på nytt*¸ 13.04.2012.

In an endoskeletal model, nouns used as verbs must be listed in the lexicon with a specific theta-grid, in addition to being listed as nouns. This is a theoretical drawback: in principle, *any* proper name/noun can be used as a verb. Consequently, all verbs would have to be specified twice in the lexicon: as nouns and as verbs.[25] If all elements are listed as independent lexemes, the effect is explosive. In addition, the theory misses out on important generalizations: the relationship between nouns and verbs derived from the same morphological stem is not be expressed. Thus, the explanatory power of the traditional analysis is reduced to a stipulative description of the syntactic environment of the lexical item.

Related empirical evidence are cases where the argument structure of a verb appears flexible: (80) shows a Norwegian verb that may appear with different argument structures:

(80) a. Kari handler.
Kari shops
'Kari shops.'
b. Kari handler mat.
Kari shops food
'Kari shops for food.'
c. Kari handler barna nye klær.
Kari shops the kids new clothes
'Kari shops for new clothes for the kids.'
d. Kari handler Visa-kortet varmt.
Kari shops the Visa card hot
'Kari shops until her Visa card is hot.'

Assuming an endoskeletal approach, what is the argument structure or theta-grid for *handle* 'shop', given the syntactic variation in these sentences?

In an endoskeletal model, this issue can be dealt with in two ways. One alternative is, as we have seen, that the verb posits facultative theta-roles in the lexicon:

hoste 'cough', V: θ, (θ)[26]

(81) a. Per hostet hele natta.
Per coughed whole night-the
'Per coughed all night.'

25. In to deal with such homophony within an endoskeletal model, one could argue that there is some kind of derivational or grammatical relation between the two homophonous items, and to capture this in the lexical entry of either the noun or the verb. My view is still that this would be a less economic analysis.

26. The optional theta-roles are marked with parentheses in the theta-grids.

b. Per hostet blod i går.
Per coughed blood yesterday
'Per coughed up blood yesterday.'

This is a common generative explanation. But *why* are these roles optional?

An alternative is to postulate several lexical entries for one verb, each with a different argument structure. This entails that there are several verbs *hoste* 'cough'. This leads a massive redundancy in the grammar: each lexical entry gives rise to different argument structures correlating with the syntactic variation (Borer 2005a, b; Brøseth 2007: 72). A theory that posits different lexical entries for one concept is problematic because it cannot explain how different argument structures can relate differently to the same concept. Also, this analysis leaves unexplained the fact that the different entries are closely related, both in sound and in meaning. In such an approach, the two versions of *hoste* are not any more related than any two completely different verbs. The endoskeletal model appears circular since the argument structures are based on the syntactic configurations in which the verb is found. The observed phenomenon and the alleged cause explain each other. In the following section, I will present an alternative analysis to account for this issue.

3.3.2 The exoskeletal alternative

Exoskeletal models reject the idea that syntactic structure grows out of lexical heads. Borer (2003, 2005a, b) rejects the endoskeletal view in common generative models and proposes to move some operations 'back' to the syntax. In exoskeletal models, the generation of syntactic structure is separated from the insertion of lexical items into the structure:[27]

> In recent years, I have been pursuing an approach which shifts the computational load away from the lexical entry to the syntactic structure, subscribing to the view that an independent linguistic lexicon includes a minimal amount of structural information, and that it is structural constraints which determine traditionally lexical properties such as syntactic category type and argument structure.

The main issue on which endoskeletal and exoskeletal theories disagree is where sentence structures come from. Where does the derivation of a sentence begin and with what? Exoskeletal theories place the burden on syntax, endoskeletal theories on the lexicon. Borer (2003: 32) summarizes the two opposite views neatly:

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27. The quote is taken from Borer's webpage: http://www-bcf.usc.edu/~borer/, accessed 31.07.2012.

1. (Semantics of Lexical item) → Predicate-Argument structure → structure (syntactic or lexical)
2. Syntactic Structure → event structure → interpretation of arguments

Relevant here is the distinction between *semantic bootstrapping* and *syntactic bootstrapping* (Gleitman 1990). Semantic bootstrapping is what we find in traditional generative approaches, where semantics is assumed to predict syntax. Under this view, one really does not need to know anything more about syntactic structure than what is already incorporated into the lexical items (Lasnik 2000: 134). Syntactic bootstrapping, on the other hand, assumes that syntax predicates semantics. Exoskeletal models represent this viewpoint.

I will follow the exoskeletal view, assuming that syntax is primary and that syntactic structure is not lexically motivated. Combining this with a weak interpretation of Bouchard's Principle of Full Identification, I argue that abstract syntactic structures (frames or templates) are inherently meaningful, bearing a G-SEMANTIC meaning. Lexical items are inserted into these structures. The meaning of the inserted items then interacts with and enriches the G-SEMANTIC meaning of the structure, but crucially these meanings do not define the structure. Structure is generated first and lexical elements are inserted into it. Importantly, these abstract templates are bearers of G-SEMANTIC meaning, entailing that information earlier assumed to be inherent in lexical elements is now partly seen as a property of syntactic structure. In addition to the structural meaning of syntax, a lexical-conceptual meaning layer is added when the words are inserted. This perspective facilitates a model of grammar where lexical elements can slip more easily in and out of the stable abstract syntactic representations, a point highly relevant for the analysis of ellipses.

To sum up, I adopt a weak interpretation of Bouchard's principle of Full Identification, implying separationism and late lexical insertion, as well as a distinction between a rudimentary G-SEMANTIC content in syntax and a richer conceptual S-SEMANTIC representation. There are different layers of meaning, starting with a G-SEMANTIC structure, which is enriched by lexical insertion and further enriched when it encounters context. The following quote from Åfarli (2001: 181–182) illustrates the theoretical foundation I embrace:

> Generally, I assume the following relations between representational modes: The visible string *underdetermines* the covert (linguistic) syntactico-semantic representation, which in turn *underdetermines* the general non-linguistic conceptual representation.

The movement towards an exoskeletal grammar model can be interpreted as the movement of a theoretical pendulum. Early in the history of generative grammar, syntactic processes were seen as highly influential. Phrase structure rules operated independently of lexical items. Chomsky's lexicalist hypothesis (1970) and Stowell

(1981) were reactions to this view, arguing for moving part of the work load away from syntax and into the lexicon. In many ways, an exoskeletal neo-constructionist model means that the pendulum is turning back.[28] Properties and processes for a long time placed in the lexicon are moved back into syntax. We have gone from an exoskeletal to an endoskeletal view and back again. Harley & Noyer (1999: 3) illustrate this clearly in their slogan: "Syntactic Structure All the Way Down". Additional support for the assumption that syntactic structure is generated independently of lexical elements and that lexical elements are syntactically formed by the position into which they are inserted is found in the domain of neuropsychology. Damasio et al. (1996) studied brain lesions and discovered that if a person has problems with retrieving words, it does not imply that she lacks access to the relevant concepts. Based on this discovery, they proposed a model for the representation of word knowledge with three levels: conceptual (preverbal, semantic), lexical (word form that matches the concept), and phonological.

The lexical level is assumed to mediate between conceptual and phonological representations and involves the abstract categorical organization of words. Damasio et al. (1996) argue that this mediating level has a neurological counterpart in the brain. It has a parallel in cognitive and linguistic models such as the Levelt model, which distinguishes between a conceptual level, a lemma level (grammatical properties) and a lexeme/sound level (Caramazza 1996; Gazzaniga, Ivry & Mangun 2002). For our purposes, this is relevant because it supports the assumption that syntactic form is independent of conceptual lexical elements. The argument proposed in this book, that lexical elements are formed syntactically by being inserted into a structural frame, is in line with this.

This perspective also resonates with Avrutin's (2006) proposed distinction between a frame and a heading, where the frame contains the structural information and the heading provides the information necessary for interpretation. In the DP *a dog*, the frame is supplied by the determiner and the heading by the noun. Avrutin (2006) bases this assumption on the observation that aphasics have trouble introducing frames, yet the headings may be intact.[29]

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28. This is not a general trend within the Minimalist Program, in which a highly lexicalist model is assumed.

29. Despite the numerous theoretical advantages, exoskeletal frameworks face challenges. For a more detailed review, see Lohndal (2012), who discusses both the syntactic and the semantic sides of the issue. Lohndal (2012) provides arguments against the idea that verbs have thematic arguments (i.e., the endoskeletal view) and argues for separating thematic arguments from verbs. In particular, he examines Kratzer's (1996) argument that themes should not be severed from the verb, an argument made on the basis of the relationship between the verb and the complement in idiomatic expressions. He argues that Kratzer's argument does not hold, and that it therefore does not provide evidence that an exoskeletal theory should be rejected.

3.3.3 Five syntactic frames in Norwegian

Borer's work is related to a family of theories that can be called neo-constructional. These theories find their roots in Construction Grammar (Fillmore 1988; Fillmore, Kay and O'Connor 1988; Goldberg 1995, 2006 among others), in which the main thesis is that underlying skeletal constructions exist independently of their actual instantiations:

> Put differently, the syntactic structure gives rise to a template, or a series of templates, which, in turn, determine the interpretation of arguments. Within such approaches lexical items do not determine structure, but rather, function as its modifiers. (Borer 2003: 32)

Similarly, a neo-constructionist view claims that argument structure does not grow out of the lexical verbs, but is determined syntactically (Åfarli 2007; Lohndal 2012; and Platzack 2012).

Åfarli (2007: 3) argues for five syntactico-semantic frames for Norwegian:

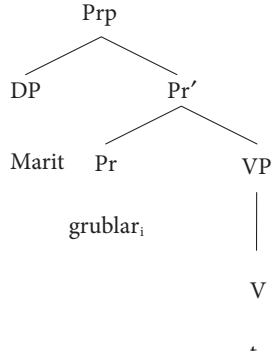
> A syntactico-semantic frame can be seen as a formal representation of semantic and syntactic elements and relations, and in that sense it is of course quite like an ordinary syntactic representation. However, a frame is unlike an ordinary syntactic representation in that it is more abstract. It should be seen as a basic and stable template that constitutes a kind of underlying structural backbone for a class of sentences, namely those sentences that conform to the given frame/template. Moreover, it is generated independently of the lexical elements (words) that the sentence consists of.

The low number of syntactic frames attested for Norwegian can be taken as support for the exoskeletal view. Such homogeneity would not be expected if selectional restrictions on phrase structure were based solely on lexical elements. Since lexical verbs display many semantic differences, an endoskeletal approach would predict the existence of many different VP-configurations (frames), which are a direct consequences of the semantics of lexical verbs. The fact that the number of possible structural configurations can be reduced to five is thus a strong argument for the claim that the syntactic argument structure of a particular verb is not decided by its semantic properties. In addition, the existence of only five syntactic frames should facilitate parsing. Despite the diversity of lexical items entering the frames, the frames themselves are invariable and we would therefore expect them to be easily recognizable. The effectiveness of parsing, even for complex structures, indicates that this is true. Pointing in the same direction is the fact that we are able to parse the syntax of sentences even in cases where some of the words are invented.

The claim is thus that there are very few frames available for each language: an intransitive frame (82), a transitive frame (83) and a ditransitive frame (84). The

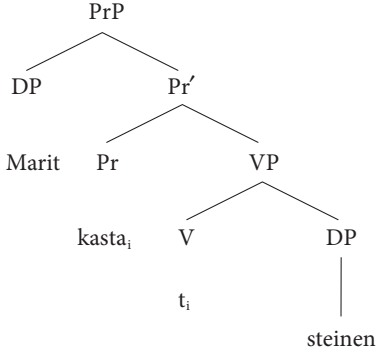
first two are most likely universal, but the third is found only in certain languages. The difference is in the internal structure of VP. The position of the subject and the verb remain unaltered. Frames (85) and (86) are constructed by substituting the direct object in (83) and (84) for a predicational resultative structure: (85) is a simple resultative frame, (86) a ditransitive-resultative frame.[30] Importantly, the frames are abstract syntactic structures with no lexical items.[31]

(82) Intransitive frame



Marit grublar
'Marit ponders'

(83) Transitive frame

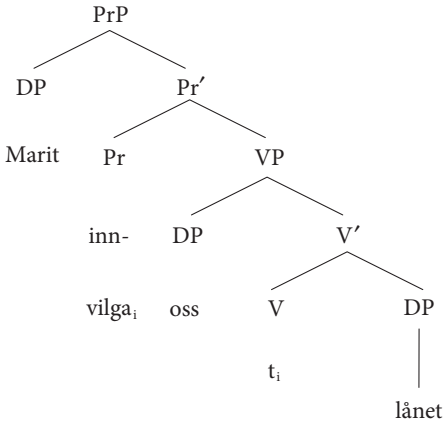


Marit kasta steinen.
'Marit threw the stone'

30. The examples are taken from Åfarli (2007).

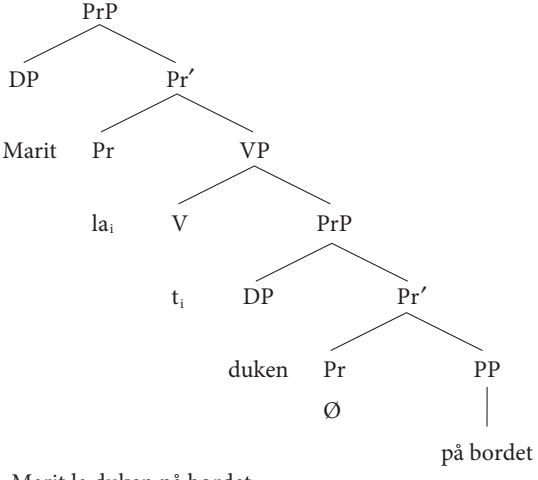
31. Note that PrP, the Predicational Phrase projecting from a predication operator in Pr, is placed between VP and TP, in the same position as vP in mainstream minimalist approaches. Unlike vP, however, PrP is assumed to be present in all clauses. Note also that the frames do not include adverbial PPs (as in these cases 'trust in someone' and 'laugh at someone'), since these are adjunct and thus assumed to be possible to add to any frame.

(84) Ditransitive frame



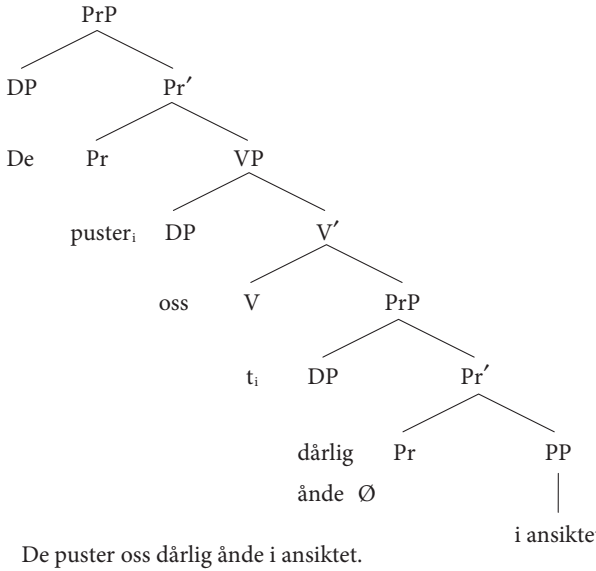
Marit innvilga oss lånet.
'Marit granted us the loan'

(85) Simple resultative frame



Marit la duken på bordet.
'Marit put the sheet on the table'

(86) Ditransitive-resultative frame



De puster oss dårlig ånde i ansiktet.
'They breathe bad breath into our faces'

How can we explain the fact that Norwegian exhibits exactly five frame types? Note that Norwegian can have ditransitive constructions with two objects and ditransitive constructions with a small clause. However, this is not possible in all languages. Such differences can only be explained by pointing to the conventionalized patterns of each language. The fact that a language manifests a certain number of syntactic templates is not decided by a language-internal selection procedure, but through language use which has converged on or fossilized into this particular conventional pattern. One issue concerns the relationship between the frames and the lexicon. Are the syntactic frames stored as units in the lexicon, or are they generated from abstract functional heads in each case? This latter is likely most compatible with minimalist theory. Since it is not of major importance for my analysis, I leave this question open.

In principle, all verbs can be inserted into all frames. However, not all verbs sound natural in all frames, as (87)–(91) show. The question mark should not be taken to indicate that all these examples are deviant to the same degree, just that most speakers find all of them deviant to some degree:

(87) ?Kari snør.
'Kari snows.'

(88) ?Kari mediterer en drøm.
'Kari meditates a dream.'

(89) ?Kari løser Jens kryssordet.
'Kari solves Jens the crosswords.'

(90) ?Kari står bilen på verksted.
'Kari stands the car to the mechanics.'

(91) ?Kari henter Jens en snøball i nakken.
'Kari gets Jens a snow ball in the neck.'

Åfarli (2007: 14) argues that the main factor governing whether the insertion of a verb (or another lexical element) into a frame is successful is *harmony* between the G-SEMANTIC content of the template[32] and the conceptual semantic content of the elements being inserted:

> The main factor is that harmony between syntactico-semantic frame type (as to canonical roles) and the verb's semantic-conceptual content (as to implied participants) will be perceived as more "natural" than disharmony in that regard. In addition, the inherent meaning of the arguments plays a role, too.

In most cases there is harmony between the lexical semantic content of the word and the structural semantic content of the frame. However, in certain cases, as in (87)–(91), the semantic-conceptual content of the lexical item does not match the G-SEMANTIC content of the syntactic frame into which it is inserted. The output will appear strange, due to the non-harmonious relation between structural and lexical meaning. *To snow* (87) usually appears with only an expletive subject, but here it is used with a referential one. *To meditate* (88) semantically points to something you do on your own, not involving any other objects or persons. Yet, in this case, it is inserted into a transitive frame. In (89), *løse* 'solve' is used ditransitively, contrary to its more common transitive use.

The issue of harmony requires more discussion. Let's take as a starting point an example generally considered ungrammatical: **John arrives Mary*. In a standard lexicalist theory, this sentence is ruled out by virtue of being a theta-violation. We still want our theory to rule it out, yet in the exoskeletal model theta-roles no longer exist and such examples are ruled out by being conceptually bad. The sentence is ruled out at the C-I interface, based on conceptual structure and world knowledge. In such a model, this sentence is weird in the same way as *Harry Potter flew the cupboards*.

Sentences such as this must somehow be excluded. In a traditional generative analysis, this is done by Theta theory: the verb *arrive* only provides one Theta role and there is room for only one argument. However, as discussed in 3.3.1, some verbs are flexible and can appear with a different number of arguments. Such cases cannot easily be explained by a Theta role analysis; this analysis would be forced

32. I will later argue that the positions in VP in PrP contain abstract canonical proto-roles.

to postulate new lexicalist Theta role specification for every instance of the same verb. I assume that what excludes **John arrives Mary* is knowledge about the world. More specifically, there is a distinction between which linguistic structures are generated by syntax and which are acceptable and meaningful in context. Traditionally, linguists have argued that grammar generates all grammatical sentences and only those, but does not generate ungrammatical sentences. Yet, one needs to distinguish between the sentences that the grammar may generate and the subset of sentences that are well-formed. This means that the sentence *John arrives Mary* is actually not ungrammatical, it is unacceptable (see also Section 1.4). Such acceptability judgments are part of a language-specific norm and are thus regulated by convention. In our example, the verb *arrive* could be used transitively, but this is simply not the convention for Norwegian. Another illustrative example is the verb *disappear*, or in Norwegian *forsvinne,* traditionally an intransitive verb. There is no reason in the grammar that this verb cannot be transitive, yet the convention says that this is not so for Norwegian. In English it is mostly an intransitive verb, but can also be used transitively.[33] Why this varies among languages is, in my opinion, best explained by convention.

In general, structures are chosen only if they fit with the inherent semantics of the lexical items (Gleitman 1990: 31). Disharmonic examples are not excluded by grammatical restrictions (see Chapter 1 on the distinction between grammaticality and acceptability). Hence, the sentences above are not ungrammatical. If they are excluded or refused as unacceptable, this judgment is grammar-external. It is a restriction based on context or conceptual knowledge. Borer (2005b: 3) makes a similar point, stating that information provided by the grammatical (i.e., functional) system cannot be overridden by being contextualized, contrary to concepts.[34] The point is that parsing is easier if there is a high degree of harmony between the frame type and semantic-conceptual content. This does not, however, exclude disharmonic examples. It only means that such examples are more difficult to parse.

Ramchand (2008) applies the concept of harmony by attributing specific features to lexical elements and requiring that these features match. This is a way of

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33. According to the free dictionary, disappear has a transitive version, which means to kidnap, imprison, or kill (http://www.thefreedictionary.com/disappear).

34. Borer (2005b) gives the following examples: *Kim* is odd if used as a common noun, and *rabbit* is odd if used as a mass noun. Still, this oddity may to a large degree be overridden. However, one cannot similarly rescue an expression in which the violations are grammatical. For example, the quantity properties of *three* and *every* cannot be contextualized: "While an expression such as *a round square* can be assigned interpretation by rendering the meanings of *round* and *square* fuzzy and impressionistic, no such fuzziness is available to rescue *one cats, much cats*, or, for that matter, *one pants* or *much scissors*" (Borer 2005b: 3).

formally requiring that a lexical element be in harmony with the features of the syntactic node into which it is inserted. Ramchand argues for a so-called 'first phase syntax', where information traditionally assumed to be incorporated into the lexical item is decomposed. At first glance, this analysis appears to be a frame-based, constructional approach. Ramchand makes a distinction between stative and dynamic verbs, assuming that all dynamic verbs are decomposed into various combinations of the features init, proc and res (causing event, transition event and result state). These features give rise to the first phase syntactic structure. In this model, matching of verb and position happens in the following way: the verb has certain specifications which allow it to identify the projections in the first phase syntax. Thus, the matching process hinges heavily on the lexical information in the verb. The idea resembles the endoskeletal view and it may be argued that Ramchand (2008) will face the same problems as endoskeletal models. Therefore, Ramchand's model is not a fully frame-based model after all. Brøseth (2007) criticizes Ramchand's model on this point. She argues that, firstly, it appears that the same information must be specified twice, both in the lexical item and in the structural position, and it remains unclear how the verb is tagged with the various features. Secondly, the fusion of verb and construction is characterized by circularity: the reason that a verb can be inserted into a structure is that it is decomposed into a certain set of subevents (init, proc, res). And we know what these subevents are because the verb in question can be fused with the specific structure.

For my purposes, there must be a certain harmony between the abstract G-SEMANTIC content of the frame and the conceptual semantic content of the lexical item to be inserted. For the reasons mentioned, I will not adopt a decomposition analysis as in Ramchand (2008). I will instead assume that the matching involves the abstract syntactico-semantic content of the syntactic frame and the conceptual semantic content of the inserted lexical element. Harmony is generally preferred, but as we have seen, examples where this harmony is challenged are also attested, giving rise to more marked constructions.

In my analysis, insertion is a process of enrichment. The conceptual semantic content of the lexical items *enrich* the structural semantic content of the frame. In Ramchand's (2008) analysis, on the other hand, the inserted lexical elements are true linguistic items with specific linguistic features. Hence, insertion is not only an enrichment process, but a true matching relation between the features of the frame and the features of the inserted elements.

In principle, lexical items could be inserted into a structure in the position where they are pronounced and from there create chains downwards, with copies or traces in the relevant positions. This accounts for the fact that information about the item is found in several positions in the structure, even though it is lexicalized only in one. The important information is not which way movement goes, but the

properties in such chains which are located in the different structural positions. For instance, a subject is always linked to the specifier of PrP, and a tensed verb must have a copy or a trace in the T position. I will leave this issue open because it is not crucial to my analysis.

The challenges faced by the endoskeletal model are largely avoided in a frame-based model. As for the made-up denominal verbs in (87)–(91), a constructional analysis would predict that we are dealing with the same lexical element whether it is used as a noun or a verb. The only difference is that the element is inserted into different structural positions. Under this view, it is expected that all nouns can in principle be used as verbs, which appears to be empirically correct. Ambivalence with respect to category is quite common and may be exploited creatively by language users. Also, for flexible uses of the same verb, the frame-based model offers an elegant solution: the same lexical verb is inserted into different syntactic frames, leading to different argument structures. The occurrence of flexible verbs thus strengthens the hypothesis that the structural frames are generated independently of the lexical verb.

CHAPTER 4

A G-SEMANTIC syntax with insertion slots

We have established an exoskeletal perspective on syntax, which assumes that lexical items are inserted late into abstract structural frames or templates. The syntactic structure is not devoid of content, but stands in a homomorphic relation to a G-SEMANTIC meaning. The next question is how this might be implemented. In the clausal architecture I propose, fundamental generative insights are combined with Bouchard's view of the syntax-semantics interface, giving rise to a separationist linguistic model of analysis, where all syntax is assumed to have G-SEMANTIC content. Each structural layer, i.e., each phrase structural projection, is motivated on a G-SEMANTIC basis. I use this model to analyse discourse ellipsis, but it also applies to non-elliptical data.

4.1 Syntactic terminals – the building blocks

The approach I adopt is as follows: a proposition is generated in VP and PrP. It is enriched with tense in TP, and in CP it is given an illocutionary force, which determines the clause type. I follow the idea of Eide & Åfarli (1999a) that sentence structure is a layered operator structure. An operator takes an argument and yields a value; in other words, it takes a particular type of item and transforms it into something else. In the clausal structure, this value then feeds the operator in the next projection of the hierarchy.[1] I will assume that we find a predication operator in Pr, which takes the lexical phrase VP as its argument and turns it into a proposition.[2] The tense operator in T then takes this proposition as an argument and yields as a value a tensed proposition. Finally, the force operator in C takes the tensed proposition in TP as an argument, and turns it into a basic speech act structure, i.e., a declarative, interrogative or imperative sentence. Hence, the operator in each layer of the clause structure enriches the proposition with a specific abstract G-SEMANTIC content. In the following sections, I will outline this structural enrichment process in more detail, but first I will discuss some more general points.

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1. A typical example of an operator is negation, which takes a proposition and yields a negated proposition.

2. The predication operator can also take other lexical projections as arguments, yielding different types of small clauses.

In the Minimalist Program, a sentence is constructed by merging the elements – both lexical and functional – in the numeration. Hence, sentence structure hinges heavily on the lexicon. Neo-constructional approaches propose that there are ready-made frames into which lexical elements are inserted. The question is: where does the structure originate, if not in lexical elements?

There are two alternative views. The first assumes that the frames are fixed entities in human cognition, generated as ready-made chunks and stored in the mental lexicon. The number of frames is limited (presumably only five in Norwegian), so this hypothesis does not lead to a storage overload in the lexicon. The second alternative is that the frames are generated step-by-step by a phrase structure building operation such as Merge. I will assume this alternative. Support for this is that the projections which constitute the frames are the same in each frame. The fact that each projection may be part of different frames suggests that what is stored in the lexicon is the head element of each projection, not the entire frame.

This view raises the question: what is subjected to Merge, if lexical items are not inserted before the clause structure is already generated? What are the building blocks of syntactic structure if we assume late lexical insertion? I will assume that what merges are elements with an abstract G-SEMANTIC content. Then, lexical items are inserted to enrich these skeletal G-SEMANTIC frames. In mainstream minimalist models, which are endoskeletal in nature, the insertion of lexical items happens bottom-up, since these elements simultaneously build the structure through the Merge operation. The assumption that Merge affects abstract G-SEMANTIC units and insertion occurs on a separate level allows us to maintain that syntactic structure is constructed in a bottom-up fashion. This construction process involves only G-SEMANTIC units and no lexical items. Whether or not lexical items are inserted bottom-up is an open question which I will not attempt to answer.[3]

To preserve endocentricity, something needs to merge. Structure cannot project from nothing. Instead of one lexicon containing both lexical and functional elements, I propose that the lexicon is divided into two sub-lexica, a linguistic lexicon and an encyclopaedic one.

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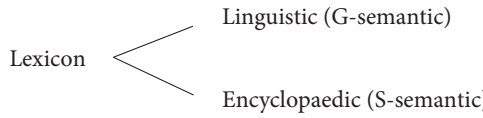
3. I suspect it may be difficult to settle this issue empirically. It is important to preserve the structural relationships between the inserted elements, e.g., chains of movement. Yet, whether an item is inserted low and then moved upwards leaving traces or whether the whole chain is inserted in all relevant position at once is not clear.

There are arguments in favor of both views. Bresnan (1971) argued on the basis of morphophonological evidence that all lexical insertion must occur before the transformational cycle, i.e. lexical insertion must proceed bottom-up. Embick (2010) adopts a similar point of view, stating that lexical items are inserted phase-by-phase bottom up, and again bottom-up within a phase. Hence, Embick argues that lexical insertion is restricted to terminal nodes. Svenonius (2012) argues against this assumption, proposing that lexical insertion can target *spans* of functional sequences, still moving bottom-up from one span to the next.



In the purely linguistic lexicon, we find abstract G-SEMANTIC elements. From this sub-lexicon, elements are selected to merge and construct syntactic G-SEMANTIC frames. The encyclopaedic lexicon contains traditional lexical items, which belong to the S-SEMANTICS in Bouchard's terms. These elements are not merged into syntactic structure, but are inserted into the structure that is already projected. This late insertion of lexical items from the encyclopaedic lexicon then enriches the meaning of G-SEMANTIC clause structure.[4]

In endoskeletal models, the selectional restrictions of the lexical items determine which elements can merge. In an exoskeletal model, the question of what determines the process of merging syntactic structure is open since lexical elements are not present at the stage of structure merging. I will propose that the constructional templates constitute a superior convention for the merging of clause structure. This entails that the language faculty is characterized by the ability to form such abstract templates, according to which phrase structure is built. Hence, Merge proceeds according to an overall construction procedure or language-specific manual, which for Norwegian speakers consists of the five syntactico-semantic sentence frames. This construction plan predicts which elements can be combined. Thus, Merge does not proceed blindly.[5]

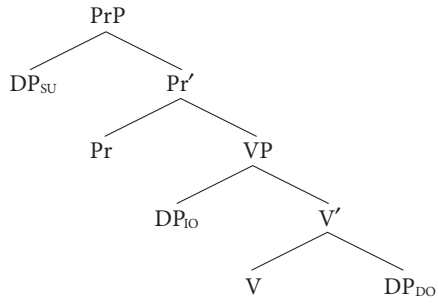
We might conclude that, instead of selectional restrictions on lexical items, there are selectional restrictions on the abstract syntactic G-SEMANTIC nodes or operators, which set restrictions on possible constructional frames. For instance, I will assume that one selectional restriction is that the predication operator in Pr may select a verbal complement (i.e., VP).[6] The head of VP may select (i) nothing (intransitive frame), (ii) a DP (transitive frame) or (iii) a second PrP (simple and ditransitive resultative frames). In a ditransitive sentence, an abstract ditransitive template is generated, so PrP selects a VP, opening up available positions for insertion of a subject, indirect object and direct object:

4. It may be tempting to state that this distinction parallels the ones between merger of functional and lexical elements. Yet, there is abstract G-SEMANTIC structure also in the lexical domain, into which encyclopaedic lexical items are inserted to instantiate the structure.

5. Importantly, X′-theory must be assumed to be part of this internalized manual for the construction of templates since phrase structure obeys X′-theoretic principles.

6. Alternatively, in non-verbal small clauses, Pr can also select other lexical projections.

(92)



Similarly, in a simple resultative frame, the PrP selects a VP, which again selects a second PrP. There is a certain degree of freedom in what can be selected, but the range of options is restricted, e.g. by X′-theoretic principles, giving rise only to the five possible templates.

Clearly, the five structural frames are not genetically given. So, what motivates them? One possible answer is that linguistic structure is built on a foundation of general thought structures. Through evolution, certain central thought structures, such as the subject-predicate relation, binary branching relation and so on, have become fundamental components of sentence structure. Under this view, certain frequent meaning relations have fossilized into a grammatical frame and have thus become structural categories or relations. This entails that linguistic structure has its origins in a more general language of thought and that meaning is primary to the formal aspects of the structure. It is also possible to envision the opposite: that syntactic form is primary. Carstairs McCarthy (1999) argues for such a view when he claims that syllable structure is fundamental to the human articulatory system and, more specifically, that binary syntactic form has developed on the basis of syllable structure (but see Tallerman 2006 for arguments against this view). In his view, syntactic form is primary to meaning. Syntax has not evolved to express semantic relations. On the contrary, semantics makes use of the syntactic forms already present, developed as an effect of the physical construction of the human language organ. This mystery of what came first, structure or communication, is fascinating, but it is an empirically unsolvable problem. I will therefore not pursue it.

4.2 Empty slots for insertion

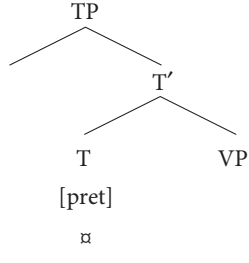
The exoskeletal, frame-based view predicts that syntactic structure is generated independently of lexical elements and that syntax is present prior to lexical insertion. This implies that ellipsis does not involve a process of deletion, as in endoskeletal models. Lexical elements are inserted late to instantiate structural positions. In the case of ellipsis, this insertion does not happen. Traditionally, in endoskeletal

models, restrictions on ellipsis have been formulated as restrictions on possible deletion. This view implies that elements need to be inserted into syntactic structure and then deleted under ellipsis. This seems uneconomical. In an exoskeletal model, elements are not deleted; they are simply not inserted, which is more economical. Hence, an exoskeletal theory of ellipsis does not search for conditions on silence, but rather conditions on sound (see also Sigurðsson 2011 for a discussion of this).

Since lexical items can no longer motivate syntactic structure, I argue that each projection is motivated from an abstract G-SEMANTIC core. In addition, I propose that each node houses a designated space for lexical insertion, an empty slot into which lexical elements may be inserted. Insertion happens either through direct lexical insertion or through movement. Note that these two types of elements correspond to the two sub-lexica I proposed. Structure projects from elements selected from the linguistic lexicon, whereas the inserted items are taken from the S-SEMANTIC, encyclopaedic lexicon. We will see later that in the case of discourse ellipsis, elements from discourse may replace these S-SEMANTIC lexical items, leading to non-instantiated positions in the clause.

To shed light on insertion into empty slots, it is fruitful to recall the distinction between lexical and functional categories in traditional generative theory. Lexical categories such as V are generally regarded as 'occupied' if they are filled by a lexical item, i.e. a verb. As a consequence, there would not be room for movement or insertion into this lexical position. Functional categories, however, can contain a functional feature and at the same time house an open position into which a lexical item can be inserted. (93) shows how this works for TP, where the head T is traditionally assumed to contain a tense feature [pret],[7] while also being a host for verbal movement. I have chosen the label ¤ for the empty position available to insertion:

(93)



Even if a functional category is filled with a feature, it can simultaneously have a lexically empty position into which a phonetic matrix from another position can be inserted via movement. Rizzi and Roberts (1996) propose an analysis of such openings or *slots* in the syntactic structure. According to them, the host, i.e., the

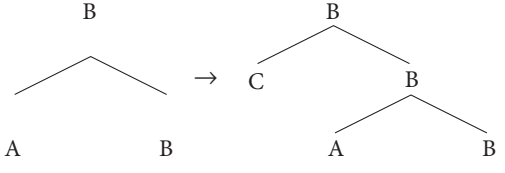
7. Note that in the previous section I explicitly argued against a concrete tense affix in T.

position into which movement is directed, subcategorizes for the element that is moving. The host generates a structural slot, which is subsequently filled by movement. For example, a finite T can have the subcategorization frame [+ V, _], with an opening for the verb moving to T.

I argue that lexical elements are inserted into empty slots ¤ in the syntactic structure.[8] Importantly, this substitution process is sensitive to harmony requirements, as discussed in Section 3.3.3: the inserted element must fit into the relevant slot. The question is whether there are empty slots in all positions of the syntactic structure and whether the slots are always generated, even when nothing is inserted. One could argue that empty slots are only generated when they are needed or claim that empty slots are always generated, but only filled in certain cases. I argue for the latter, but since this issue is not empirically solvable, I will not insist on this.

Technically, this can be described as a process of substitution, replacing one item with another at a particular place in a structure (Crystal 2008). This perspective is different from the mainstream minimalist view, which assumes that structure is built through adjunction of lexical elements to the existing structure. The distinction between substitution and adjunction[9] has its roots in early generative theory, where these two operations were seen as two kinds of transformations or movement. Whereas *adjunction*, as in (94), is structure building, in that it creates new hierarchical structure with respect to the category to which something is adjoined, *substitution*, as in (95), is structure-preserving in that "the hierarchical relationships between the category affected by the substitution and those categories that dominate it remain unchanged" (Freidin 1992: 85).[10]

(94)

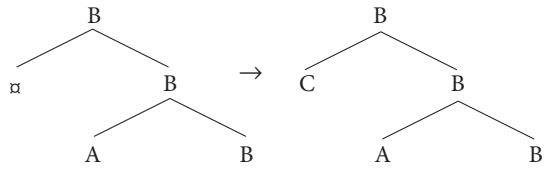


8. Within recent exoskeletal work, and also in distributed morphology, it is assumed that functional projections contain feature matrices and functional exponents are inserted into the structure in designated spots. These exponents must then correspond to the feature matrix specified in the projection. I will not go into this in detail, but only point out that the model of analysis I propose is compatible with this view. See Embick & Noyer, Grimstad, Åfarli & Lohndal and Åfarli/Subbarao for a more thorough outline of this system.

9. I referr to *adjunction* as a structure building mechanism, as opposed to *substitution*. Importantly, this should not be confounded with the distinction between adjuncts and arguments in generative grammar.

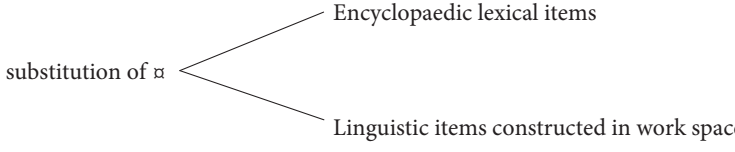
10. Substitution thus adheres to the Structure Preserving Constraint: "a constituent can only be moved by a substitution rule into another category of the same type" (Radford 1981: 190).

(95)



This view of structure building resonates with the theory of phrase structure rules (PS RULES), which assumed that syntactic structure is built from non-lexical elements and lexical items are then inserted to substitute the syntactic nodes. Freidin (1992) states that PS rules generate constituent structure representations for sentences. When these are to be related to actual strings of words in the language, this happens through lexical insertion, a substitution transformation. I will adopt this perspective when I argue that the empty slots in the structure are replaced by lexical items through substitution.

Radford (1981) and Crystal (2008) state that in GB theory, substitution was assumed to involve a moved category replacing an empty category. Following this line of thought, I assume that the first step in a derivation is to generate the abstract syntactic structure, more specifically one of the five structural frames. Each position in the structure then generates an empty slot, in addition to the G-SEMANTIC operator and various formal features. Subsequently, the slot ¤ is substituted. Even though I apply the symbol ¤ for both cases, there are two types of slots, head and specifier/complement slots. Hence, two types of elements may be inserted into the structure, i.e. there are two sub-types of substitution:



The slots in head nodes are substituted by encyclopaedic roots from the lexicon.[11] Whole phrases may be inserted to substitute the slots in specifier and complement positions. In that case, I propose that these phrases are constructed in a separate work space, where structural units are built before insertion into the matrix clause structure. This proposal finds resonance in Chomsky's (1957) *generalized transformations*, which were assumed to take small structures and combine them. Thus, lexical elements substitute the slot ¤ in head positions, and phrases constructed in work space substitute the slot in specifier and complement positions. In ellipsis,

11. Not only atomic roots, but also complex words, can be inserted into head positions. Possibly, these complex words are then constructed in a linguistic work space, similarly to phrases in non-head positions.

both ellipsis of specifiers and heads, the slots remain unfilled. It is an open question whether the slot is substituted by a conceptual non-linguistic element or whether a linguistic item is constructed in work space, but not inserted to substitute the slot. I will return to the specific restrictions on insertion in ellipsis in Chapters 6 and 7.

4.3 Separationism in the functional domain

In Chapter 3, I argued for a separationist view of the lexical domain of the clause, more specifically with respect to argument structure. I proposed that separationism is equally relevant for the functional domain of the clause.[12] Just as in the lexical domain, there are examples of multiinsertion and multifunctionality in the functional part of the clause. This supports a separationist mode. Firstly, complementizers and raised verbs occupy the same position in Norwegian conditional clauses. This is an example of multiinsertion:[13]

(96) Hvis/Om/Dersom du raner det postkontoret, havner du i fengsel.
if you rob that post-office-the end-up you in prison
'If you rob that post office, you will end up in prison.'
$[_{C}$ Hvis/Om/Dersom $[_{T}$ du_{i} $raner_{j}$ $[_{PrP}$ t_{i} t_{j} $[_{VP\ tj}$ det postkontoret (…)]]]]

(97) Raner du det postkontoret, havner du i fengsel.
rob you that post-office-the end-up you in prison
'If you rob that post office, you will end up in prison.'
$[_{C}$ $Raner_{j}$ $[_{T}$ du_{i} t_{j} $[_{PrP}$ t_{i} t_{j} $[_{VP\ tj}$ det postkontoret (…)]]]]

This interchangeability shows that there is a common underlying functional position, C, which is instantiated either by verb movement or by insertion of a complementizer. The semantic meaning remains stable through the examples, which indicates that the abstract G-SEMANTIC element in C bears much of the semantic content.

An example of multifunctionality in the functional domain is Norwegian *gjøre* 'do', which can appear either as a regular main verb or as a functional proverb marking the C-position:

(98) Hun *gjorde* det hun skulle på jobben.
she did that she should at work
'She did what she was supposed to at work.'

---

12. See also Eide & Åfarli (1999a) and Brøseth (2007).

13. The two sentences have the same meaning, yet, as seen in the bracketing analyses provided, this is structurally realized in different ways.

(99) Solgte frimerker, *gjorde* hun.
sold stamps did she
'She sold stamps.'

These examples favour a construction-based approach of the functional domain of the clause. To demonstrate this idea, Åfarli (2001: 184) points to the regular patterns of relative clauses in German, English, Norwegian and Middle English:

antecedent	**pronoun etc.**	**COMP**	**clause**
das Mädchen	das	ø	ich heiraten möchte
die Frau	welche	ø	das gesagt hat
Im Moment	ø	dass	die Bombe explodierte
the plan	which	ø	aroused most enthusiasm
people	whose lawns	ø	are trimmed
people	ø	that	live in new houses
mannen	om hvem	ø	du snakker
mannen	ø	som	du snakker om
huset	der	som	han bur
a doghter	which	that	called was Sophie

Even though there are holes in the patterns, marked with ø, there are no cases where the order of the elements diverges from the prediction in the X′-based schema. Such regularity is hard to explain without assuming an abstract underlying structure. I therefore embrace the idea that there is an underlying structural X′-based template in the front area of relative clauses, generated independently of the realized string. Not every terminal needs to be instantiated by visible linguistic material. In all these languages, there is an underlying CP that must somehow be instantiated. The nature of this instantiation is not necessarily the same in each language, but the basic underlying structural order is. Interestingly, it seems that in older languages, instantiation of both nodes (specifier and head) of CP was more common. Modern versions of the same languages appear to be more efficient and no longer instantiate both nodes.

The data provide "strong evidence that there are abstract underlying constructions that are possibly only partially instantiated by visible elements" (Åfarli 2001: 187). In what follows, I will take the separationist hypothesis as a point of departure, seeking an exoskeletal motivation of the functional domain, based on a weak interpretation of Bouchard's principle of Full Identification.

4.4 Clausal architecture

The number and type of functional projections probably vary from language to language and also between different sentence types. The focus here is on the projections assumed for all sentences: CP, TP, vP and VP. I will not discuss projections which are present only in certain sentence types, such as aspectual projections, auxiliary projections, negation projections, etc. My main claim is that each projection is motivated from an abstract G-SEMANTIC content. The number of functional projections has been the subject of lively debate, not least with respect to the C- and T-domains and many different projections have been suggested. Chomsky (1995) proposed to reduce the basic functional domain to three projections: CP, TP and vP. In addition to lexical projections within the VP, clauses are assumed to contain at least these three functional projections: "[t]o first approximation, the clause seems to be of the general form: […C…[…T…[…v…]]]" (Chomsky 2002: 123).

According to Kitahara (1997), the postulation of functional categories must be justified either by phonological or semantic output conditions or by theory-internal arguments.[14] Intuitively, the first two options seem most appealing. If one can do without theory-internal argumentation, this is generally preferable.[15]

> The categories that concern us include T, D, C, AGR and the light verb *v*. The functional categories T, D and C are arguably justified by their semantic representation: T bears a feature of [finiteness], D bears a feature of [referentiality], and C bears a [mood] feature (e.g., declarative, interrogative). But the functional categories AGR and the light verb *v* each have no interface interpretation, thereby calling for theory-internal arguments.

In current versions of the Minimalist Program, the category AGR is rejected, and agreement is handled by Probe-Goal relations between nodes in the tree. This leaves only little v for theory-internal motivation. I propose to replace vP with PrP, a semantically motivated projection based on predication (Bowers 1993, 2001). Then, there is no need for theory-internal motivation for CP, TP or PrP. What remains is to motivate the assumed projections in an abstract G-SEMANTIC fashion, i.e., to find a G-SEMANTIC basis for each. This will be my main goal in what follows.

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14. Thráinsson (1996) presents a related argument when he states that whether a functional category is present in a language should be motivated from visible morphology.

15. Because my main focus is clause structure, I will not elaborate on the category D.

4.4.1 CP – Illocutionary force and speech acts

The C-domain is hierarchically the highest domain in the clause structure. It is generally assumed to relate the context–linguistic or non-linguistic to the propositional content (see e.g. Rizzi 1997). Consequently, CP expresses two kinds of information, one directed outwards (the sentence modality), the other inwardly (information about finiteness and properties of the T-domain).[16] I first briefly examine the traditional motivation for the CP. Then, I propose an account based on arguments from the philosophy of language, building on the difference between propositional content and illocutionary force, to motivate the G-SEMANTIC base of CP.

CP will be discussed in more detail than TP. There are two reasons for this. Firstly, the argument for an abstractly motivated CP will serve as support for my overall view. Secondly, CP is of particular relevance since this is the clausal domain most frequently targeted by discourse ellipsis.

The traditional motivation for CP has been that the complementizer in subordinate clauses projected to the phrase level. As a consequence, the null hypothesis was that CP is present also in main clauses. The C head is then assumed to be filled by a complementizer in subordinate clauses and by a finite verb in main clauses (Koster 1975; den Besten 1983).[17] I have argued that a node can be phonetically empty, but that it can never be G-semantically empty. In light of this, positing a CP in main clauses as a landing site for movement appears unfortunate. Is there a G-SEMANTIC basis for the CP? I base my answer on the idea that properties of the C-domain determine the sentence type: "[i]f C is the head of the clause, then, (…) the properties of C should determine the properties of the clause" (Haegeman and Guéron 1999: 99); see also Chomsky (1995: 240, 289), Rivero & Terzi (1995), and Platzack & Rosengren (1998). Rizzi (1997) argues that the clause-typing properties of CP are handled by a separate projection, ForceP. Since I will not adopt a split CP analysis, I take the clause-typing property to be a property of CP. CP is commonly

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16. I return briefly to this in Chapter 6. This complex function of the C-domain has led to the widely-accepted hypothesis of a split CP (Rizzi 1997) containing multiple projections such as Force, Focus, and Finiteness, each with simpler functions. In what follows, I will assume a non-split CP, mostly for expository reasons. My analysis would not gain anything from assuming a split CP.

17. This is further supported by the distribution of sentence adverbials, which illustrates the need for a landing site for verb movement. In Norwegian, the sentence adverbial precedes the finite verb in subordinate clauses, but follows it in main clauses. This can be explained if the verb is assumed to move past the sentence adverbial on its way to C (see e.g. Åfarli & Eide 2003). The finite verb and the complementizer thus compete for the same position.

assumed to be the designated projection for clause typing.[18] Thus, the sentence type is generated and motivated independently from the rest of the clause. This distinction between sentence type or mood and the descriptive content of the clause has deep roots in philosophical theory, where a distinction is established between a modal element, which defines the sentence type, and the propositional core of the sentence. Frege (in Beaney 1997: 52) proposes the following figure:

| — p

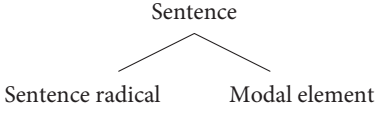
The horizontal stroke is the 'content stroke' and represents the propositional core; the vertical stroke is the 'judgement stroke' and corresponds to the speech act or definition of sentence type. Importantly, if the judgement stroke is not present, the sentence cannot be an assertion:

> If the small vertical stroke at the left end of the horizontal one | is *omitted*, then the judgement will be transformed into a *mere complex of ideas*, of which the writer does not state whether he recognizes its truth or not. (…) In this case we *paraphrase* using the words '*the circumstance that*' or '*the proposition that*'.
>
> (Beaney 1997: 52–53)

Frege's assertion sign clearly brings out the distinction between assertion and predication (Kenny 1995). Attaching a predicate to a subject does not involve making an assertion about the subject–predicate relation expressed in the proposition. The combination of subject and predicate is handled by the content stroke, which connects the symbols that follow it (Beaney 1997: 53). Seuren (1998) notes that natural language does not allow the expression of a 'pure' proposition without any further anchoring. It is impossible to express only a pure mental picture of a condition such as *John buy house* because language is not merely a system for representing conditions. All clausal utterances are speech acts through which the language user creates an illocutionary effect with respect to the underlying proposition.

This theoretical issue is addressed by Stenius (1967) who claims that all sentences are divided into a sentence radical, the propositional core, and a modal element expressing the speech act of the utterance:

(100)



18. See Zanuttini & Portner (2003) for a different view. Aiming to give an account of exclamative clauses, they argue that there is no particular element in the syntax responsible for introducing force, i.e. clause typing.

As support for Stenius' argument, Føllesdal (1967) notes that there is never a single word in a sentence that defines the sentence as an assertion. This indicates that the assertion element is not expressed as part of the sentence as such. Rather, it is an independent element *sui generis*:

> On the whole, there is, as Frege pointed out, no word in any sentence which makes the sentence an assertion (*Behauptung)*, for the word may occur equally well in an asserted as in an unasserted sentence. The asserting element therefore is not something that is expressed by a part of the sentence; it is something *sui generis*, an element of the assertion's meaning, in a wide sense, which is due to the use we make of the linguistic expression and is not expressed by the expression itself.
> (Føllesdal 1967: 276)

Consider (101)–(103), which clearly have something in common even if their modalities diverge. More specifically, they express different modes or speech acts:

(101) My son cleans his room.

(102) Clean your room, son!

(103) Does my son clean his room?

Following Stenius, I propose that the common element in these sentences is the sentence radical. It expresses descriptive content, while the modal element expresses whether the sentence is declarative, imperative or interrogative.[19] The modal element constitutes the G-SEMANTIC core of the projection and is assumed to function as an operator. It takes the sentence radical as an argument and gives as a value a sentence with illocutionary force, a speech act. Depending on which operator interacts with the sentence radical (sr), the result is an assertion, a command or a question:

DECL (sr)	→	declarative sentence, assertion
INTERROG (sr)	→	interrogative sentence, question
Imp (sr)	→	imperative sentence, demand

Traditionally, the mood declarative has been considered unmarked and equal to the descriptive content. Consequently, many theorists have sought to reduce all other modes to the declarative mode since declarative sentences 'only describe how things stand'. This is unfortunate as it leads to different descriptive contents for sentences that only differ with respect to speech act or mode. It is obvious that the

19. See Lohndal & Pietroski (2011: 1) for an analysis of interrogatives based on a similar idea: "we offer a minimalist version of an old thought: the leftmost edge of a sentence permits a kind of abstraction that makes it possible to use a sub-sentential (mood-neutral) expression to ask a question."

examples above have a common semantic basis, even though they express different sentence types.

Now, how and in which position should these modal speech act elements be integrated into syntactic structure? Early transformational grammars, such as Chomsky (1957), follow the traditional view that declarative sentences reflect the underlying unmarked syntactic structure. Specific transformations form interrogative and imperative sentences. Declarative structures, however, do not need any transformation because they are considered identical to the propositional core.

Stenius is at odds with this view: he claims that declaratives contain a modal element independent of the sentence radical and parallel to the interrogative and the imperative mode. The sentence radical defines conditions for how things must be for the sentence to be true or false, while an assertion postulates also that the content of the sentence radical actually *is* true or false. Stenius (1967: 259) refers to Wittgenstein's *Tractatus* (1922) on this point: "[t]he sentence shows how things stand, if it is true. And it says that they do so stand." Lewis (1976) develops Stenius' ideas when he analyzes all sentences as being divided into a sentence radical and a modal element, which together express the meaning of the sentence:

> One method of treating non-declaratives is to analyze all sentences, declarative or non-declarative, into two components: a *sentence radical* that specifies a state of affairs and a *mood* that determines whether the speaker is declaring that the state of affairs holds, commanding that it hold, asking whether it holds, or what.
>
> (Lewis 1976: 37)

I will adopt the fundamental idea from Stenius (1967) and Lewis (1976) and propose that the modal speech act value is incorporated as an operator in the C-position. This idea finds support in the generative literature (Kitahara 1997; Rizzi 1997; Haegeman & Guéron 1999; Platzack 2000), here illustrated by a quote from Chomsky (2002: 123):

> To first approximation, the clause seems to be of the general form […C… […T… […V…]]], where V is the verbal head of the configuration in which deep semantic roles are assigned, T is the locus of tense and event structure, and C (complementizer) is a kind of force indicator distinguishing declarative, interrogative, etc.

Claiming that sentence modality should be derived from an operator located in C assures that CP is endocentric in main clauses. Moreover, since the operator is located in the topmost projection of the clause structure, it will have scope over the rest of the clause. Within an exoskeletal model of clause structure, which I am advocating, it is unfortunate that CP in subordinate clauses is motivated by a concrete, visible complementizer.

I aim to offer a unified analysis of main and subordinate clauses, so I argue that the C-position is motivated abstractly from a mood operator in all kinds of clauses. Supporting this is the fact that most subordinate clauses also have a certain sentence modality. The examples in (104)–(106) illustrate subordinate clauses with declarative, interrogative and imperative value:[20]

(104) She knows that he will buy her flowers.

(105) She wonders if he will buy her flowers.

(106) She commands him to buy her flowers.

The abstract modality operator is thus the common G-SEMANTIC motivation for CP in both main and subordinate clauses (see also Rizzi 1997).

The notion of a speech act has its roots in John Austin's (1962) theory, which introduced three levels of speech acts. A locutionary act is to express a meaningful combination of words. An illocutionary act incorporates the communicative content of the clause and perlocutionary acts are the effects of the speech acts in a given situation and thus are not linguistically defined. Hence, the communicated content of an utterance can be divided into a propositional and an illocutionary part.

Speech acts can be expressed by declarative, interrogative or imperative sentences, but also by using explicit performative verbs:

(107) I bet my team will win the game.

(108) I ensure you there is enough room for everybody.

One could therefore argue that there are many different illocutionary speech acts, at least as many as there are performative verbs. Wittgenstein (1953: §23) advocates this view: "[b]ut how many kinds of sentence are there? Say assertion, question, and command? – There are *countless* kinds."

Several theorists claim that three speech acts are fundamental and universal. Sperber and Wilson (1995) call these three saying, telling, and asking. According to Blakemore (1992), a language user would not be capable of understanding an utterance if she is not certain which is involved. Lyons (1977) emphasizes that

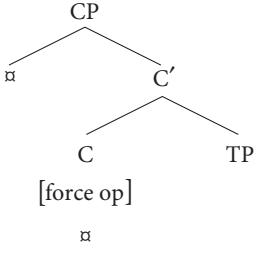
---

20. From these examples it might seem that the main verb defines what type of subordinate clause will follow. Clearly, the verb of the main clause does select a specific category of subordinate clause. Yet, assuming an exoskeletal view, I will argue that this is governed by a harmony relation. Rather than assuming a derivational selection process where the verb selects a certain clause type, I assume a representational kind of selection. A certain verb needs to be inserted together with a specific subordinate clause type, i.e., a clause with a specific operator, as its complement. The relation is governed by harmony between the elements.

declarative, interrogative and imperative are the three fundamental sentence types in all languages, correlating with the three fundamental speech acts. They likely received their proper grammatical expression because they are fundamental.[21] The crucial point is that the speech acts in the C-domain are grammaticalized with their own sentence patterns. It is not accidental that there are specific sentence forms for declaratives, interrogatives and imperatives, while there are no such specific patterns for speech acts such as *to promise, to demand,* and *to bet*.

Thus, I propose that the CP projects from an illocutionary force operator. This is the G-SEMANTIC content of the projection. In addition, the C-node contains an empty slot available for lexical insertion. I argue that all positions in the tree will contain such an open slot since syntactic structure is never assumed to project from lexical items. These elements are always inserted late:

(109)



The slot ¤ may, in the case of CP, be filled either through movement, i.e., of the finite verb in main clauses, or through direct lexical insertion of a complementizer, as in subordinate clauses.

4.4.2 TP – a tense operator

Tense is sometimes considered a concrete affix in T that hooks on to the verbal stem when the verb raises (or alternatively, when the suffix moves down in affix hopping). Assuming an exoskeletal approach to phrase structure, I will motivate TP abstractly,

---

21. Notice that an utterance with a performative verb can be said to express a 'double' speech act. The sentences above have an abstract declarative mode even if the performative verb expresses another speech act. This is even more striking in the following sentences:

(1) I *declare* my eternal friendship to you.
(2) I *asked* her if she had already eaten.
(3) I *demand* that you clean the house.

These examples clearly illustrate the two levels of speech acts: one directly expressed by a lexical verb, a performative speech act, the other an illocutionary speech act expressed through the grammatical form of the sentence.

from a G-SEMANTIC base. This is not controversial in generative grammar, so the interesting question relates to the nature of this abstract tense property. I will seek an answer in the tradition of formal semantics and in particular tense logic. In formal semantics, like in the model developed by Richard Montague, tense is considered an operator that takes a proposition as an argument and gives as a value a tensed proposition anchored in time: T (prop(a)) (Dowty, Wall and Peters 1981: 112). In the clause structure, the tense operator must have scope over the proposition, which is achieved by the fact that T c-commands the basic proposition (PrP).

The tense operator anchors the proposition or sentence radical to the moment of speech, by directing the truth conditions of the proposition to a specific point in time.[22] The relation between time as a category in the world and tense as a grammatical category illustrates how syntactic or G-SEMANTIC structure represents some sort of fossilized *language of thought*, a stiffened expression of meaning. What we find in the T-projection is not a contextually relevant, S-SEMANTIC, concrete reference to time, but rather the illusion of or the remains of a more lively expression of meaning.

One might argue that tense is an E-SEMANTIC notion and thus should have no place within a G-SEMANTIC sentence frame. However, I want to emphasize that I-SEMANTICS and E-SEMANTICS are related. I-SEMANTICS may be seen as a 'fossilized' form of E-SEMANTICS. The relation to meanings in the world is there, albeit indirectly. This is how I understand the tense operator. It is not directly connected to concrete, E-semantic time, but to the G-SEMANTIC expression of time as a fossilized concept.

Some examples come from verbs that can occasionally be used to express references other than the one expected from their grammatical tense. For instance, in English, the difference between *can* and *could* is formally a difference of tense. However, in (110)–(113) the distinction is related to modality rather than tense:

(110) He can go to the party.

(111) He could go to the party.

(112) I shall try to improve my skills.

(113) I should try to improve my skills.

Hence, the relation between tensed verb forms and time anchoring is not one-to-one. Rather, it seems that in the clausal architecture in T, we find a fossilized G-SEMANTIC notion of time, which is indirectly related to a more lively expression of meaning.

We saw earlier that there are many kinds of speech acts, but only three are incorporated into the syntactic structure. In a parallel manner, many different time references can be found. However, only two have a simple morphological

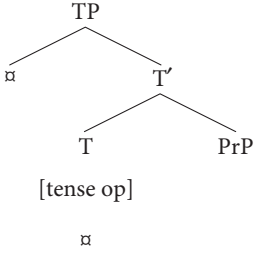
22. Tense is often called a deictic category because it points to a concrete time (Dowty, Wall and Peters 1981).

expression in Norwegian: present and past tense.[23] The point is that the expression of meaning related to time is far richer than what can be expressed within the frames of a G-SEMANTIC clause structure. This kind of meaning representation belongs to an S-SEMANTIC component in Bouchard's model of cognitive architecture. But, as Bouchard (1995) argues, because the context is always present to enrich the meaning, the linguistic expression can be sparse.

To sum up, I assume that tense is generated as an operator in T and that this operator takes the proposition or sentence radical as an argument and yields a tensed proposition with a truth value as its output. Hence, the projection TP is G-semantically motivated, not by the S-SEMANTIC notion of *time*, but by the linguistically relevant notion *tense*.

Parallel to what I proposed for CP, I propose that TP contains an open slot ¤ available for lexical insertion:

(114)



The slot can be filled through movement of the finite verb or by direct lexical insertion, as in English *do*-support. Also, the specifier position contains an empty slot, which may be substituted through lexical insertion.

4.4.3 A predication operator in PrP

Having motivated the CP and TP layers from an abstract G-SEMANTIC basis, I now move on to motivating an abstract G-SEMANTIC core for the structure that corresponds to the propositional content or the sentence radical. I propose replacing vP with the semantically motivated projection PrP, based on Bowers (1993).[24] Bowers assumes a semantic calculus reflected in the syntactic structure, which is to say

23. In other languages, such as French and Italian, the future form of the verb also has a designated inflection.

24. Kitahara (1997) argues that vP does not have an interface interpretation and demands theory-internal motivation.

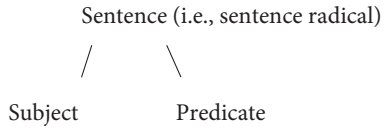
that syntax and semantics are assumed to operate in tandem. PrP is assumed to be present in all clauses.[25] To motivate PrP, I will first briefly discuss two divergent views on the notion predication.

In (115), the verb *spiser* mediates a relation between the subject *Per* and the object *bolle*:

(115) Per spiser en bolle.
'Per eats a bun.'

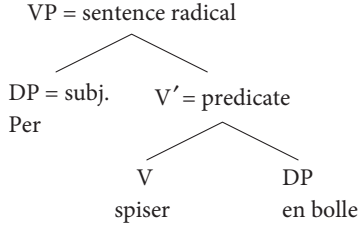
More specifically, the verb and the object together serve as a predicate that expresses something about the subject. The relation between the subject and the predicate is therefore often understood as a relation of *aboutness* (Williams 1980). According to this view, sentences will generally have the following structure:[26]

(116)



Before PrP/vP was introduced into syntactic theory, (115) would have the following structure:

(117)



This analysis shows that the verb mediates a relationship between the subject and the object; the predicate requires a subject to be saturated. However, not only verbs

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25. Note that I have chosen to include the PrP within the lexical domain. This is not a straightforward assumption. This projection is assumed to contain an operator that creates a proposition, which makes it a functional projection. Yet, since the domain of argument structure includes PrP, the subject being generated in [SPEC,PrP], the PrP really covers the same domain as the VP in earlier models. Thus, it seems that including PrP in the lexical domain is justified. Nevertheless, this is not crucial for my analysis.

26. A problem with the 'aboutness view' is the existence of expletive subjects, which have no semantic content. How can a predicate be about a semantically empty element? Bower analysis proposes an account for this problem with expletives, yet I will not discuss this here.

can serve as predicates (Stowell 1981). In non-verbal small clauses, DPs, APs and PPs can also function as predicates:

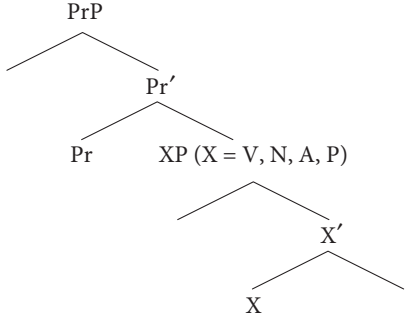
(118) Hun vil gjøre [Per glad].
'She wants to make Per happy.'

(119) Hun vil kalle [Per en nisse].
'She wants to call Per a Santa.'

(120) Hun vil sende [Per til rektor].
'She wants to send Per to the principal.'

In a syntactic model without PrP/vP, a likely analysis for these examples is that the small clause subject is adjoined to the predicate. This analysis is proposed in Chomsky (1986b), among others. The fact that different lexical categories can serve as predicates indicates that there is something outside the linguistic element itself that turns it into a predicate, i.e., an independent semantic element mediates the predication relation between the subject and the predicate. Bowers (1993) proposes that what transforms NP, AP, PP and VP into predicates is a predication operator. The operator takes a property XP as input and yields a predicate:

(121)



This idea has precedents in the philosophy of language. As we saw, Frege (in Beaney 1997) proposes a figure consisting of a horizontal content stroke and a vertical judgement stroke to illustrate a judgement:

| —

The vertical judgment stroke has a role to play in relation to CP and illocutionary force. More relevant here is the horizontal content stroke, which according to Frege "binds the symbols that follow it into a whole" (Frege 1879 in Beaney 1997: 52–3). Similarly to Bower's predicational operator, it implies the necessity of an element external to the subject and the verb to mediate between the two and construct a proposition.

In a parallel manner, Strawson (1974: 25) gives a threefold analysis of predication, presenting the following formula for proposition formation:

ass (i, c)

where *i* stands for particular-specification, *c* stands for concept-specification, and, most importantly, *ass* stands for propositional combination. Thus, Strawson follows Frege in arguing for the necessity of a mediating element to form a proposition:

> It is to be remembered that 'ass ( )' merely represents the function of propositional combination; it is not to be thought that 'ass' itself represents a concept-specifying expression, e.g. an expression specifying the concept of assignment or that of exemplification or that of application. (Strawson 1974: 26)

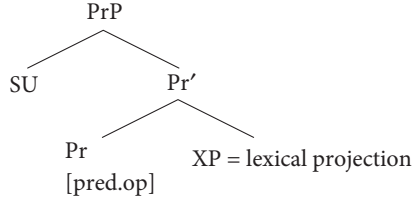
This idea is developed in Bowers (1993), who proposes that the semantic predication operator gives rise to a syntactic predication projection PrP, with the following properties:

> (a) the canonical D-structure position for external arguments is [Spec, Pr]; (b) Pr^0 F-selects the maximal projection YP of any lexical category; (c) either PrP is selected by I^0, or it can be subcategorized as a complement by V; (d) the semantic function of Pr is predication. (Bowers 1993: 595)

PrP can take different lexical projections as its complement, which provides a unitary analysis of main clauses and small clauses. In main clauses, VP is the complement of PrP, while in non-verbal small clauses, PrP takes a DP, an AP or a PP as its complement:[27]

The head of PrP contains an abstract predication operator, which takes a property element and transforms it into a propositional function. Hence, the predication operator provides the predicative content to the whole projection PrP, independently of the nature of the lexical projection it takes as a property XP.

(122)



27. Bowers (1993) proposes a different analysis of the direct object, namely that it is generated in [SPEC,VP]. I will not adopt this part of Bowers' analysis, but will follow the mainstream view on this point, generating the direct object as the complement to V. Then, [SPEC,VP] can be reserved for the indirect object.

The predication operator needs a property XP in order to construct a predicate. This property can be VP or another lexical projection, depending on the sentence type: main or small clause. Hence, the Pr′-level is actually the true predicate. In this analysis, the parallelism between VP and other XPs functioning as predicates is straightforwardly accounted for.

An important strength of Bowers' (1993) analysis is that it adheres to the principle of compositionality: the meaning of a complex expression is a function of the elements it contains and of the way they are combined. Only two elements are combined at a time, resulting in a meaning representation of this particular combination. Subsequently, the new element is combined with another item, in a recurring process. The new elements carry the semantic information of the elements they are constructed from. The final proposition is thus a product of these elements and the way they are put together. Hence, Bowers' theory is clearly compatible with the homomorphic view of the interface between syntax and G-SEMANTICS, which I argued for earlier (Bouchard 1995). If the semantic function of Pr is predication, the relationship between syntax and semantics is transparent, as stated in Bouchard's (1995) principle of Full Identification. In Bowers' analysis, syntax and semantics stand in an homomorphic relation, just as in Bouchards' theory. However, a weak interpretation of the principle must be assumed also with respect to PrP, since there are cases where the Pr-operator is not phonetically expressed, as seen in the small clauses above.

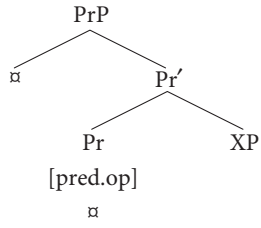
Following Eide & Åfarli (1999a), Åfarli & Eide (2001) and Åfarli (2007), I assume not only that the notion of predication is relevant for the PrP level of the clause, but that there is a predicational relation in all functional projections in the clause. The idea has its basis in Heycock (1991), according to whom the predication relation is the licensing mechanism for maximal projections. Heycock proposes that every maximal projection of a [+ V] category is a syntactic predicate: each clause structure contains several layers of predication. Hence, in PrP, TP and CP, there is a predicational relation between the specifier and the X′-level. More specifically, the CP contains a predicational relation between the theme in [SPEC,CP] and the rheme in C′ (Heycock 1991; Rizzi 1997); the TP holds a predicational relation between the subject in [SPEC,TP] and T′, mediated by a predication operator in T. Last, the PrP houses a relation between the subject in [SPEC,PrP] and the predicate in Pr′. I have argued that each functional projections contains an abstract operator, a force operator in C and a tense operator in T. Adopting the idea of layered predication, I suggest that each layer additionally contains a predication operator. I assume that a projection can host several operators and features.

This can shed light on the origin of the structural frames mentioned earlier. Possibly, the frames are generated on the basis of predicational structures. Still,

these predicational relations are not read off syntactic structure. The relations are themselves G-SEMANTIC in nature, which means that predication can considered the backbone of the syntactic structure.

I will argue that PrP, in a manner parallel to CP and TP, contains an empty slot available to lexical insertion.

(123)



In full clauses, this slot is filled through movement of the main verb from V to Pr. In small clauses, the slot may remain unfilled, or it may be lexicalized by *som* 'as', *til* 'to' or *for* 'for':[28]

(124) … gjøre [Jon gal].
… make Jon crazy

(125) … anse [Jon som gal].[29]
… consider Jon as crazy

Hence, similarly to what we saw for TP and CP, the empty slot in PrP can be filled either by direct lexical insertion or through movement, or it may remain empty.

4.4.4 An exoskeletal approach to VP

Just as I argued for the projections in the functional domain, I will argue for an exoskeletal approach to VP.[30] More specifically, I propose an analysis with empty slots for the VP-domain. The insertion of lexical items into the VP-internal lexical positions does not happen through movement, but rather through direct insertion from the encyclopaedic lexicon. The exoskeletal view of clause structure is thus

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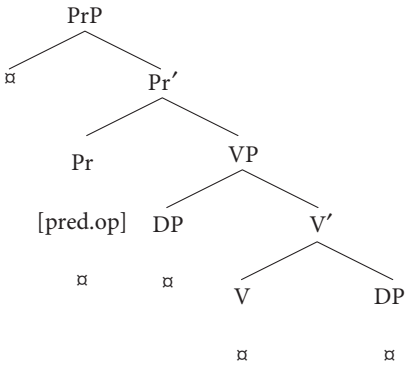
28. See Eide (1998) and Eide & Åfarli (1999a, 1999b) for a more detailed discussion of the different guises of the predicational operator.

29. The example is taken from Eide & Åfarli (1999a).

30. Support for this view was discussed earlier through examples of flexible argument structure and the flexibility of lexical verbs.

extended to the lexical domain. Each position contains an open slot into which a lexical item can be inserted:[31]

(126)



I argued earlier that no syntactic head can be radically empty.[32] Adopting a weak interpretation of Bouchard's principle of Full Identification, I claimed that a head must have some G-SEMANTIC content. So, what is the G-SEMANTIC content of this projection?

In endoskeletal models, it is generally assumed that the argument positions in VP are tied to the theta roles assigned by the main verb in V. An agent role is linked to the subject position, a patient role to the direct object position and a recipient role to the indirect object position. A hierarchy for thematic roles has been proposed by several theorists (Grimshaw 1990; Jackendoff 1990, 2002; Dowty 1991), the general idea being that particular thematic roles map onto particular argument positions. Yet, in neo-constructional models, theta roles are not the source of syntactic structure. Lexical elements are inserted into abstract structural templates. Argument structure is thus syntactically defined by the position into which the lexical items are inserted. If an argument is inserted into the subject position, it will receive a different role interpretation than if it is inserted into an object position. Clearly, the role interpretation is due to something other than information in the lexical item itself.

A related argument is presented in Åfarli (2007), based on (127) and (128):

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31. I also include PrP in the figure since the subject is assumed to be base-generated in the specifier position of this projection (Bowers 1993).

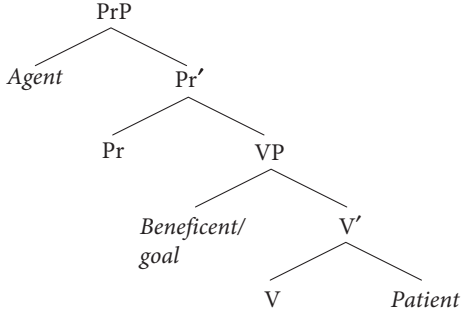
32. I argued that there is a difference between heads and specifiers/complements on this point. Heads need to project from a G-SEMANTIC core and specifiers and complements project from their own heads. This means that in (126), the heads must have a G-SEMANTIC content, whereas the specifiers and complements are phrases projected in work space, and then inserted to fill the specifiers/complements positions.

(127) Per dansa Marit.
'Per danced Marit.'

(128) Per dansa med Marit.
'Per danced with Marit.'

There is an attested asymmetry between the subject and the direct object in (127). *Per* is an agent and *Marit* is a patient/theme. This is not the case in (128), where the PP is adjoined to the frame and not generated in the object position. Here, both DPs are conceptually interpreted as agents. These role interpretations cannot be derived from the lexical items themselves since these are the same in both sentences. This indicates that the frame implies certain interpretations of the inserted arguments. More specifically, each argument position determines an abstract *proto-role*.[33] Thus, the subject position in [SPEC,PrP] denotes an agent proto-role; the position of the indirect object in [SPEC,VP] denotes a beneficent/goal, and the direct object position in the complement of V denotes a patient-like role:

(129)



Instead of being assigned theta roles by the verb, the nodes in the VP and PrP give rise to canonical role interpretations assigned to the inserted lexical elements. Crucially, these abstract roles do not have their roots in lexical verbal concepts.[34]

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33. This argument is also made by Dowty (1989, 1991) although not tied to syntactic positions. For my analysis, the linking between proto-role and syntactic position is crucial.

34. In light of the hypothesis of canonical roles, it seems plausible that Åfarli's five syntactic frames correspond to five different canonical situations or schematic situation types. A related view is expressed by Goldberg (1995), who argues that argument structure constructions designate scenes basic to human experience. Goldberg (1995: 39) calls this the Scene Encoding Hypothesis: "[c]onstructions which correspond to basic sentence types encode as their central senses event types that are basic to human experience." Hence, the five structural frames express different types of fossilized situation templates. The grammar model I propose is thus clearly anchored in a neo-constructional approach, where syntactic constructions in a language carry meaning independently of the lexical words.

Brøseth (2007) points to so-called non-sense verbs as empirical support for this view:

(130) Hege snabret Lars.
'Hege *snabered* Lars.'

(131) Lars snabret Tonje Henrik.
'Hege *snabered* Tonje Henrik.'

(132) Henrik snabret.
'Henrik *snabered*.'

The verb *snabre* has no established meaning in Norwegian; it is made up. Yet, Brøseth (2007) argues that a certain meaning still arises from the verb in these sentences. From this she concludes that the structural positions of the verbs are bearers of a specific meaning since it appears that, despite the absence of inherent lexical meaning, the arguments of the non-sense verb still bear certain meanings. Brøseth (2007) assumes that this meaning is equal to the canonical role interpretation of the syntactic position.

The general view is that lexical items are assigned a role from the position into which they are inserted.[35] Yet, there are cases where the thematic properties of a certain syntactic position and the properties of the inserted argument appear to be contradictory. Occasionally, different constituents can occupy the same position, but exhibit different roles. In (133), the subject is clearly agentive, which is not the case in (134):

(133) Johan knuste vasen.
Johan broke vase-the
'Johan broke the vase.'

(134) Steinen knuste vasen.
rock-the broke vase-the
'The rock broke the vase.'

It appears that the notion of agent is too specific. Not all subjects are agentive. Still, there is a structural asymmetry between the subject and the object positions, and it is mirrored on the semantic side, given that syntax and G-SEMANTICS stand in a homomorphic relation.

I therefore propose that the structural positions contain proto-roles, but that these are more abstract and less specific than assumed in Åfarli (2007). Under this analysis, the variation in thematic roles can be accounted for. Moreover, if thematic relations are assumed to be properties of the frames themselves, as in an exoskeletal approach, and not properties derived from the verb, one should expect

35. See Baker (1997) for a similar claim.

that a particular slot would always assign the same thematic proto-role to the inserted argument. The fact that the thematic roles associated with syntactic nodes are subject to some variation thus poses a challenge to the exoskeletal framework.[36]

The proto-roles are underspecified and depend on the conceptual semantic content of the inserted lexical verb and arguments to be specified as roles. The inserted lexical items *enrich* the structural frame with conceptual semantic content. Thus, rather than claiming that he subject in (133) is agentive and the one in (134) is not, I will argue that the subjects share the same abstract proto-role – *cause*. The difference in interpretation is due to the conceptual enrichment that occurs when the lexical items are inserted. If the verb implies an agent role, then the subject will be agentive. If it implies a recipient role, the subject will be interpreted as receptive. Each position thus contains a potential proto-role further specified by the conceptual content of the inserted lexical verb as well as the content of the inserted DP.[37] Otherwise, the analysis would not be as restrictive as desirable. By stating that enrichment is S-SEMANTIC, one also obtains the desirable consequence that the G-SEMANTIC syntax remains compositional. If conceptual enrichment were included in the narrow syntactic derivation, the system would no longer be compositional.

Expletive subjects are an apparent challenge for the proto-role hypothesis:

(135) Det blåser på fjellet.
it blows on mountain-the
'It is windy in the mountains.'

An expletive cannot have agentive properties as it can hardly have any semantic property at all. Also, the subject of a copula verb cannot be agentive. In the model of clause structure that I put forth, both expletive and referential subjects are generated in the same position, namely [SPEC,PrP]. Following Åfarli's (2007) proposal, there

36. The assumption that different thematic properties could be related to the same position is a violation of Baker's UTAH. If one is committed to following UTAH strictly, one could argue that the subjects did originate in the same structural position in the D-structure. However, there is no motivation for assuming different structural positions for these subjects other than the difference in interpretation. Hence, the argument seems circular.

I will keep the fundamental insight of UTAH, arguing that each syntactic node may house only one thematic proto-role. However, I will argue that UTAH restricts syntax on a highly abstract level, i.e., the roles in the syntactic nodes are abstractly defined. They are proto-roles rather than specific thematic roles.

37. The same argument is assumed to apply to direct and indirect objects. Direct objects can be realized as patients or as themes and not all scholars believe that there is a difference between the two. Indirect objects may appear as an experiencer, a recipient, or a goal. In the enrichment process, this abstract semantic role interplays with the semantic content of the inserted verb and DP to further specify the thematic role of the indirect object.

is a canonical agent proto-role anchored to this position. In the case of expletive subjects and subjects of copula verbs, the proto-role seems to have disappeared. On the semantic side, the predicate generally ascribes a property to an entity, i.e., to the subject. Yet, in an expletive construction, the subject does not denote an entity. The aboutness relationship usually established between the subject entity and the predicate is not mirrored in semantics since the expletive subject is semantically null.

Still, I will argue that the analysis I propose can account for examples with expletive subjects. We saw that proto-roles are present in the G-SEMANTIC syntax and that lexical insertion enriches this syntactic frame. In the case of expletives, however, this enrichment seems to imply a perceived cancellation of the role. Another way to think of this is that the inserted constituent is not capable of filling and enriching the proto-role.

One might argue that the possibility for 'cancelling' a proto-role leads to non-compositionality in the derivational system. I will adopt Åfarli & Eide's (2000, 2001) analysis on this point. They propose that the entity in the subject position is by definition *pro forma*, and it is enriched by the inserted element. When an expletive subject is inserted, it is a non-entity. It is the placeholder required by the predicate to create a proposition. This entails that the expletive subject is the bearer of certain G-SEMANTIC content, namely the ability to create a proposition together with the predicate. The predication operator is a proposition-builder and this builder is operative independently of whether the clause has a semantic subject or not.

By assuming that the subject position, the indirect object position and the direct object position all contain potential proto-roles, I will argue that they are G-semantically motivated. With respect to the G-SEMANTIC content of the V node, I will assume that it denotes something proto-verbal that mediates between and ties together the different arguments in the DP positions. Crucially, this node is also subject to semantic enrichment as a consequence of the insertion of a selected lexical verb. Pointing back to Goldberg's (1995) idea of argument structure displaying fossilized situation types, it could be argued that each of the syntactic frames contains a separate kind of proto-verb, each projecting one frame type. This would entail that there is one proto-verb for intransitive sentences, one for transitive and ditransitive frames, as well as for simple and ditransitive resultative frames. I will not dwell on this issue, since it is not crucial to my analysis.[38]

To sum up, the analysis I proposed keeps the fundamental insight from neo-constructional approaches, namely that lexical items are inserted late in the

38. Expletive subjects are also found in passive constructions and cases where the subject position is filled through movement of an internal argument. Can the idea that the subject position has a potential proto-role be maintained for these cases? The issue of passive construction within a non-lexicalist approach is discussed in Åfarli (2006), who proposes an exoskeletal analysis.

derivation. I also adopt the idea that the syntactic frames define the role interpretation of the inserted elements. The assignment of thematic roles is guided by the syntactic frame and the specific node into which the lexical item is inserted. I have shown that the role specification of an argument is determined through a combination of the G-SEMANTIC content of the syntactic position and the conceptual, encyclopaedic semantics of the inserted lexical item. Whereas Åfarli proposes that the proto-roles are quite specific, I assume they are more abstract and less specified. This is why I call them *potential proto-roles*. The exact specification of the thematic role happens through an enrichment process when the lexical elements are inserted into their respective positions. Each lexical item carries some semantic content, which interacts with the proto-semantic information encapsulated in the structural frame. Thus, through this enrichment process, the proto-role goes from being an abstract potential to being either more specified or, in some cases, cancelled.

4.4.5 The ontology of lexical semantics

The influence of lexical elements on syntax is severely limited in neo-constructionist models of grammar. Instead of constituting the building blocks of syntactic structure, lexical items are inserted into abstract structural templates which they enrich. So, how should the lexicon be defined? Earlier, I introduced two lexica: one purely linguistic lexicon consisting of G-SEMANTIC items, which may be merged in syntax, the other containing encyclopaedic, conceptual, S-SEMANTIC elements inserted into this structure. In this chapter, I discussed the G-SEMANTIC lexicon and defined a G-SEMANTIC core of each projection. More relevant at this point is the encyclopaedic lexicon. How is it best characterized and what influence do the conceptual lexical items have once they are inserted into the syntactic structure?

Borer (2003) proposes to move large parts of the traditional lexicon into an encyclopedia consisting of so-called EIs, encyclopedic items, with no category or argument structure. The category and argument structure are defined when the EIs are inserted into syntactic structure. Thus, Borer's lexicon is a true interface with the conceptual system. Similarly, Åfarli (2007: 14) assumes that lexical semantics, from a strictly grammatical viewpoint, can be characterized as a "structureless amorphous mass" receiving form once it is inserted into a syntactic frame. Gleitman (1990: 23) illustrates this with the metaphor of a mental zoom: "the syntax acts as a kind of mental zoom lens for fixing on just the interpretation, among [all the] possible ones, that the speaker is expressing." The five structural frames of Norwegian can be interpreted as different settings of Gleitman's zoom. Hence, lexical and structural meaning combine and form an integrated meaning representation: "[i]n that way, the semantics of the frame (canonical roles) will interact with the inherent semantics of the verb and the arguments that are inserted

into the frame" (Åfarli 2007: 15). As mentioned, lexical insertion can be seen as a process of semantic enrichment.

In endoskeletal models, lexical categories are morphological in nature since they are fully specified before projecting into syntax. The syntactic possibilities of the lexical elements are thus to a large extent defined by their inflection, as in Chomsky's (1970) Lexicalist Hypothesis. Contrary to this, neo-constructional theories launch the idea that categorical identity is defined by the syntax: "the category of the phrase as a whole is then determined by that of the functional category that it is the complement of" (Baker 2003: 266).

Categorization is thus seen as a top-down phenomenon, contrary to endoskeletal models, where the perspective is bottom-up (Baker 2003: 267). Such a view can easily be reconciled with both Borer (2003) and Åfarli (2007), who emphasize the lexical items' close interface with general conceptual structure, s-semantics in Bouchard's framework, and also the idea that syntax gives form to the structureless lexical items or EIs.

Åfarli (2007: 15) refers to Fodor (1998) and Fodor & Lepore (2002) as support for his view on lexical semantics: lexical meaning is assumed to be indistinguishable from general encyclopaedic knowledge:

> I, for my part, would rather like to suggest that the lexical elements are tags that we place on segments of our conceptions of the world. The point is that those segments are heterogeneous, fuzzy and holistic, and that a "lexical semantics" that tries to define the semantics of a word, will end trying to define our conceptions of the world, simply because there is no well-defined (or natural) dividing line between the holistic meaning of the word and a putative lexical semantic meaning.

Lexical semantics is holistic and in some respect non-linguistic; the lexemes can be seen as tags placed on parts of our conception of the world. The problem in traditional endoskeletal approaches is that the lexical semantics slides into structural semantics when lexical items project into syntax and when syntactic argument structure is assumed to be incorporated into lexical verbs. Hence, a distinction between lexical and structural semantics should be maintained.

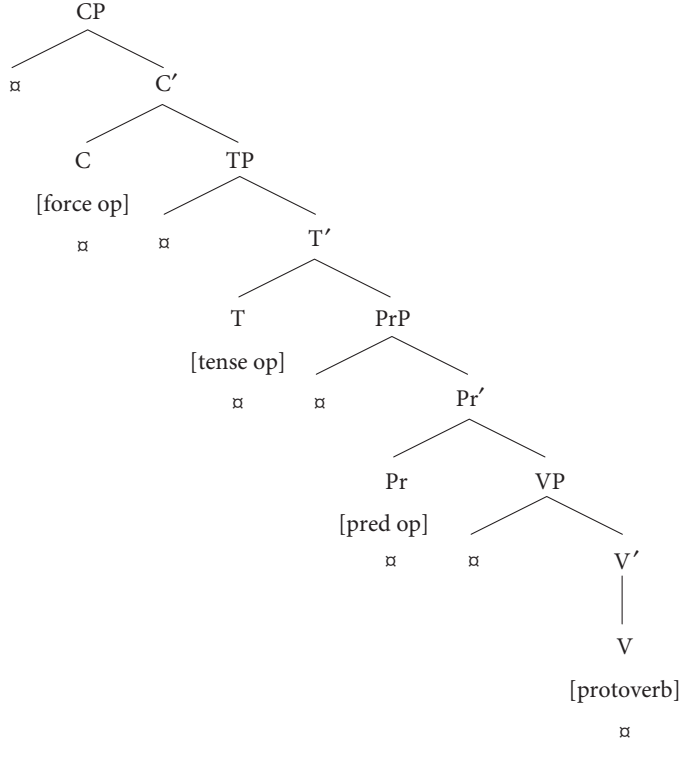
4.5 Conclusion

In this chapter, I argued that syntax stands in a homomorphic relation to semantics, though not globally. Following Bouchard (1995), I propose a distinction between situational s-semantics and grammatically relevant g-semantics. Syntax is argued to bear meaning and be the formal expression of g-semantics. This was expressed in the principle of Full Identification (1995). Since I showed that this principle is too strict, I proposed a weak interpretation of it, implying that a

morpho-syntactic element must have G-SEMANTIC content, but does not have to be phonologically instantiated. I also argued in favour of a separationist or exoskeletal view of clause structure, assuming that syntactic structure is abstract and is generated independently of lexical insertion. Lexical items are inserted late.

Given that syntax is assumed to be G-SEMANTIC in nature, I argued for a G-SEMANTIC core of each main projection in the clause structure, including both the structural and the lexical domain. CP is projected from an illocutionary force operator, TP from a tense operator and PrP from a predication operator. As for VP, I proposed that each argument position hosts a potential proto-role, which is further specified by the conceptual content of the inserted verb and the inserted argument itself. The head V is assumed to contain an abstract proto-verb, of which there are five main types in Norwegian, giving rise to five alternative frames or templates. The overall representational template for clause structure I assume is displayed in (136), a transitive frame:

(136)



Lexical items are inserted into structural frames. They are inherently unstructured and have no category specification. By being inserted, they are structurally shaped. Following Fodor (1998), Fodor & Lepore (2002) and Åfarli (2007), I argue that lexical semantics is identical to encyclopaedic knowledge. In Bouchard's terms,

lexical semantics is categorized as S-SEMANTICS. I further argued that there are two subtypes of lexica: one purely linguistic and G-SEMANTIC and one non-linguistic and encyclopaedic. Elements from the former are merged into syntactic structure. Elements from the latter are inserted into syntactic positions, getting linguistically shaped. This shows that there is a clear parallel between lexical insertion and pragmatic enrichment, as is obvious in discourse ellipses, where encyclopaedic, contextual information, though without sound, fills the gap that would otherwise occur.

To account for insertion, I propose that each syntactic terminal position contains an open slot ¤. These slots may be filled in two ways – through direct lexical insertion or through movement. In case of ellipsis, the slot is not filled at all. The implication is that ellipsis is no longer a case of deletion. It is a case of non-instantiation.

The analytical model proposed in this chapter is not developed with a focus on discourse ellipses. Rather, my intent is to propose a general model for sentence structure and sort out the relation between syntax and semantics. Clearly, this is relevant for ellipses where this relation seems distorted: there is meaning without form. Hence, even though the model outlined so far is not specific to ellipses, it lays the groundwork for its analysis. The fact that the model aims to be general can be seen as a strength; an analytical model that only accounts for one type of linguistic phenomenon would have less explanatory power.

CHAPTER 5

Silent structure and feature construal

In my model, each clausal projection is motivated abstractly from G-SEMANTIC content. The model is not designed specifically for elliptical constructions, but for all sentences. My goal, of course, is to provide an analysis of discourse ellipsis, so in the next two chapters I return to this phenomenon. In this chapter, I discuss *the structure question*: what is the syntactic structure of discourse ellipses? Is there syntactic structure in the ellipsis site, does it contain syntactic active features, and how does feature valuation proceed in the case of ellipsis? In Chapter 6 and 7, I turn to licensing restrictions.

5.1 The structure question

What does it mean to characterize something as ellipsis? The implication is that something is missing, but in what way? Has the syntactic structure been truncated, such that the implicit elements are present only conceptually, but not structurally? Or is there a silent structure underneath the ellipsis? If so, what does it contain? I will offer three possible answers to these questions and I will show that only one is consistent with my model of analysis.

One alternative is to assume that the underlying structure is present, but without any content. If all information about features is assumed to be in lexical items, when a lexical item is omitted or not inserted, no feature information enters the syntax. This alternative resembles the theory of phrase structure rules, where the rules first generated a syntactic structure into which lexical items were inserted. However, after Stowell's (1981) critique of phrase structure rules, the idea that every projection had to be projected from a head gained ground. In other words, all phrases must be endocentric. A completely bare structure is not possible, given that a projection must project from something. This view is now integrated in the concept of Merge, which applies only if a local asymmetric grammatical relation can arise between the two elements merged. Such a relation is only possible if the elements have content. No grammatical relation is possible between empty nodes.

A second alternative is to assume that there is no structure underlying the ellipses. The elided items are not structurally present and the syntactic structure is truncated. An immediate argument against such a proposal is that despite not being instantiated, the elided items tend to be syntactically active, which is obvious

in that they display connectivity effects where one part of the clause shows a connection to another part. Of interest here are the cases in which one part is subject to ellipsis. These elided elements can enter into binding and agreement relations, so they must be present on some syntactic level even though they have no phonological realization.

Interestingly, Haegeman & Guéron (1999) suggest a truncation analysis for abbreviated registers of English. Rather than claiming that the elided element is truncated from the syntax, they propose a missing C-projection for sentences with initial subject drop. In these abbreviated registers, null subjects can only occur in a restricted set of environments. They are not permitted in embedded clauses, root interrogatives, embedded interrogatives, or sentences with topicalized arguments or topicalized predicates. In short, they are excluded if the CP layer is filled by an overt element (Haegeman & Guéron 1999: 622). From this they conclude that non-overt subjects generated in [SPEC,IP][1] must be the leftmost elements in the structure. A truncation analysis like this one might be more plausible for English than for Norwegian, since English is a non-V2. I will argue against a truncated CP-analysis for Norwegian.[2]

It is a common assumption that all non-overt elements must be identified. This is formulated as the Empty Category Principle (Chomsky 1981a, 1986b), a universal constraint on the distribution of non-overt elements, following from Full Interpretation (Haegeman & Guéron 1999: 622):

> The Principle of Full Interpretation:[3]
> LF should only contain elements that are legitimate at that level, i.e., elements which contribute to the semantic interpretation.
>
> ECP:
> Non-overt elements must be identified.

As seen in Chapter 2, in *pro*-drop languages, *pro* subjects are assumed to be identified through rich verbal inflection; traces of movement are identified through their antecedents. The null subjects in abbreviated registers seem to contradict the ECP because apparently they are not identified at all. Consequently, they should be ruled out since there is no antecedent in ellipses which can identify the elided element. However, they are not ruled out. Haegeman & Guéron (1999: 622) therefore refer to Rizzi's (1994) modified version of the ECP:

---

1. Haegeman & Guéron (1999) use the termIP. I call this projection TP.

2. Whether or not a truncated CP-analysis applies to English is beyond the focus of this book.

3. The principle of Full Interpretation was first proposed in Chomsky (1986a). This formulation of the principle is taken from Haegeman (1994: 539).

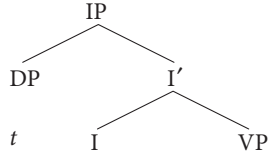
Modified version of the ECP:
Non-overt elements must be identified if they can be.

Let's briefly consider the licensing of traces. Traces are identified by a co-indexed c-commanding antecedent. As long as there is such a c-commanding position hosting an antecedent for the trace, the trace can potentially be identified. Following both versions of the ECP, the trace *must* be identified. However, the modified version of the ECP loosens the restrictions slightly, allowing certain instances of traces to remain unidentified:

> The reformulation of the identification constraint allows traces to occur in one position without being identified by an antecedent: the one exempted position is the highest position in the clause. If we could generate clauses without the CP layer and which have a trace in their subject position, such traces could escape the identification requirement. (Haegeman & Guéron 1999: 622–623)

The idea is that sentences with non-overt subjects in abbreviated registers do not have a CP layer at all. Consequently, the subject trace in [SPEC,IP] is not identified. This is ruled out by the original ECP but permitted by the modified version, on the assumption that it is not possible for the subject trace to be identified if there is no CP layer to house the antecedent. Since there is no position above the I-domain that can identify the elided item in [SPEC,IP], this empty category escapes the identification requirement.[4]

(137)



The claim is thus that in these abbreviated registers, a root sentence need not obligatorily project a full CP, but rather can be truncated or cut down to a bareIP. Why is this so, if in other variants of English all sentences obligatorily expand to a full CP-structure, CP being the interface between the sentence and the discourse?[5] The suggested answer is that in such registers, economy prevails. Hence, the requirement that structure should be minimal ranks higher than the requirement that the root CP be projected (Haegeman & Guéron 1999: 624). To assure that these bare

4. Structure from Haegeman & Guéron (1999: 623).

5. Note that some scholars (e.g., Chomsky 1986a: 48–52) have assumed a truncated CP in sentences like *Who came?* and *Who likes John?*, in which the *wh*-element is the subject. The reason is that the movement to a position in CP would not alter the distribution of items in any case: the movement is vacuous and has no visible effect.

IPs are appropriately integrated into the discourse, it is proposed that this happens through some direct procedure, instead of being mediated by the CP layer. A parallel is drawn with the anaphoric vs. indexical readings of pronouns: when bare IPs are used as root clauses, the discourse connection is established indexically rather than anaphorically.

I will reject this analytical possibility. Firstly, the argument appears circular. The hypothesis is that if the ECP is modified, clauses can be truncated and have no CP layer. And, if a truncated structure is assumed, this is explained by the modified version of the ECP. Secondly, the distributional patterns of sentence adverbials in main clause subject ellipses in Norwegian display empirical evidence against Haegeman & Guéron's analysis (Nygård 2004; Nygård, Eide & Åfarli 2008; Nygård 2011), at least for V2 languages:

(138) Jeg hadde ikke så veldig mye venner.
I had not so very many friends

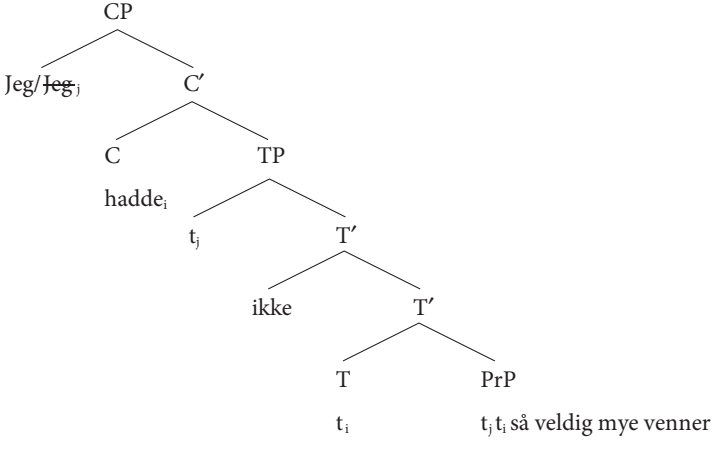
(139) … at jeg ikke hadde så veldig mye venner.
that I not had so very many friends

(140) ~~Jeg~~ hadde ikke så veldig mye venner NoTa
~~I~~ had not so very many friend

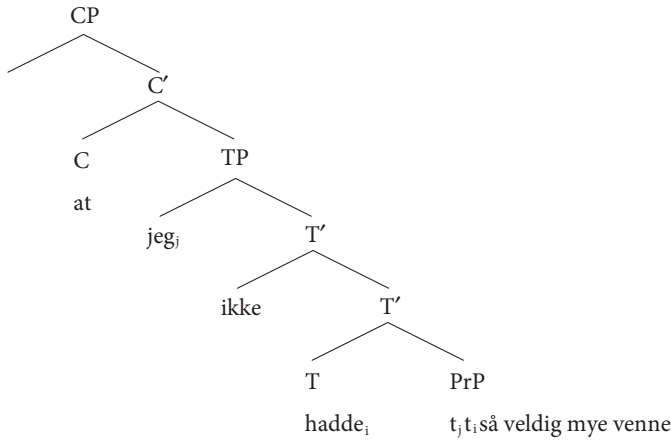
(141) *~~Jeg~~ ikke hadde så veldig mye venner.
~~I~~ not had so very many friends

In Norwegian, which is a V2 language, the finite verb moves to C in main clauses (138), across the sentence adverbial *ikke* 'not', which presumably is adjoined to T′. This is contrary to what happens in subordinate clauses like (139), where C is filled by the complementizer. The difference is illustrated in (142) and (143):

(142)



(143)

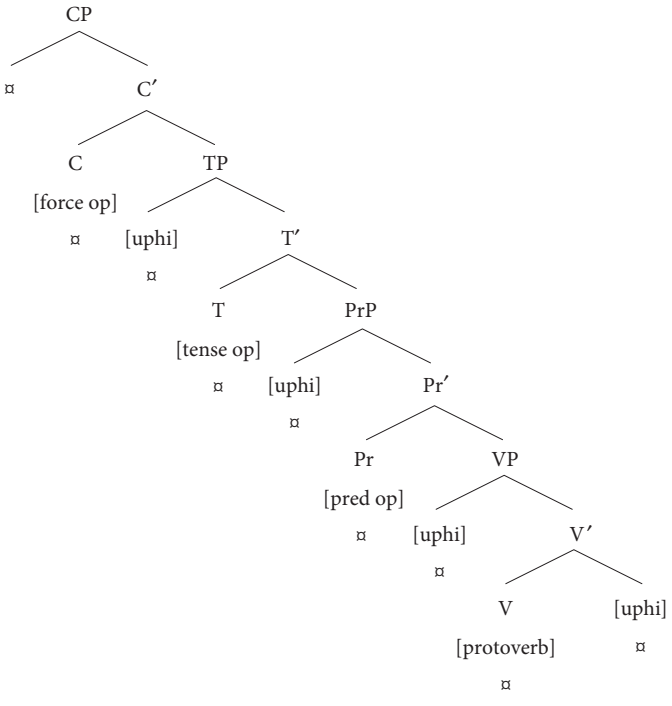


The word order difference between main and subordinate clauses is explained by the presence/absence of verb movement. If we were to adopt a truncated structure analysis, with no CP layer, we would have no way of explaining why the sentence in (141) is not acceptable and why the word order in ellipses must be as in (140). In a truncated structure, there would be no C-position for the finite verb to move into in main clauses such as (140), and the obligatory word order would not be predicted. Moreover, a truncated CP analysis would not yield a uniform analysis of V2. However, if we assume a full sentence structure with a CP layer for ellipsis, all of this follows naturally. Therefore, I reject the truncated structure analysis.

I propose a third alternative: syntactic structure is present in the ellipsis site and grammatical features are present despite the lack of lexical material. Hence, the structure contains formal grammatical features independently of the insertion of lexical items. Moreover, as argued earlier, the functional part of syntactic structure contains abstract operators in each projection. As seen in Chapter 4, PrP contains a predication operator that takes any property (a lexical XP) and forms a proposition. The tense operator in T takes this sentence radical and yields a tensed proposition. Finally, CP contains a speech act operator which contributes illocutionary force to the proposition.

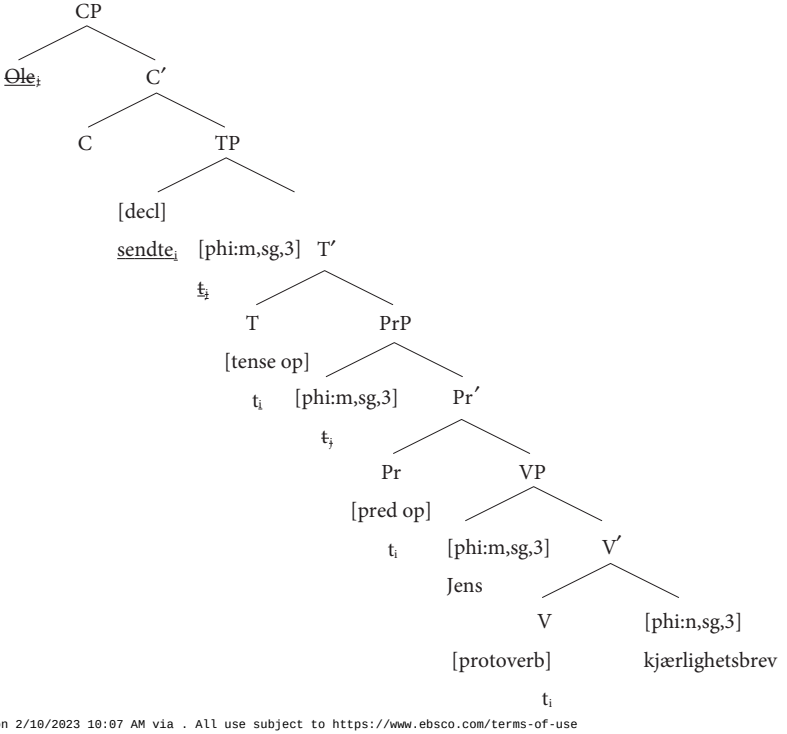
The structure in (144) shows the assumed syntactic structure before lexical insertion; (145) displays a sentence with a silent subject. In the first structure, the phi-features are not valued ([uPHI]), while in the second one they are.

(144)



uphi = unvalued phi-feature
¤ = slot for insertion

(145)



(146) ~~Ole~~ sendte Jens kjærlighetsbrev.
'~~Ole~~ sent Jens love letters.'

In arguing for this analysis, I will limit myself to the treatment of phi-features (gender, number, person) since my goal is not to provide a complete analysis for all features, but rather to present a plausible line of thought. I will first outline why silent heads in ellipses probably contain phi-features before outlining the theory of agreement assumed in recent versions of the Minimalist Program. Then, I discuss some examples that appear to challenge the minimalist view of agreement, namely cases of semantic agreement. This discussion will clarify certain issues related to the analysis of discourse ellipses. Towards the end of this chapter, I propose an analysis that can be applied both to semantic agreement and to agreement in discourse ellipses.

5.2 Agreement and valuation of phi-features

5.2.1 Active agreement features in the ellipsis site

There are several reasons to believe that lexically empty nodes can contain grammatical phi-features. Firstly, subject ellipses can contain anaphors, which need to be bound and thereby c-commanded by an antecedent with specific phi-features, triggering agreement on the anaphor:

(147) ~~Han/Hun/De~~ tok med seg sånn albinopytonslange. NoTa
~~he/she/they~~ took with self$_{REFL}$ such albino pyton snake
'He/She/They brought such an albino pyton snake.'

(148) ~~Han~~ trenger ikke å bestemme seg enda. NDC
~~he~~ needs not to decide self$_{REFL}$ yet
'He doesn't need to decide yet.'

(149) Det var tjuefem som søkte og de sa at det var tjuefem plasser, så ~~det~~ sier seg selv.
it was twenty-five which applied and they said that it was twenty-five positions
so ~~it~~ says itself$_{REFL}$ NoTa
'There were twenty-five applicants and they said that there were twenty-five positions, so it's quite obvious.'

In both (147) and (148), the anaphor *seg* 'self' is 3rd person (either singular or plural), yet there is no visible subject to bind it. The same is true of the anaphor *seg selv* 'itself' in (149). As is well known, anaphoric elements such as *seg* 'self' require an antecedent.[6] Even when the subject is missing, the number and person features

6. Unbound anaphors are illicit, as Binding Principle A states: An anaphor must be bound in its governing category (Chomsky 1981a, Haegeman 1994).

on the subject must be present in order to ensure the right agreement morphology on the anaphor. Thus, it is not necessarily the morphologically visible features or affixes of the lexical item that determine agreement.[7]

A well-known case in point is Romance *pro* drop (Haegeman 1994: 450), as in (150)–(151). In (150), the auxiliary has 3rd person singular morphological inflection; in (151) it has 1st person singular, despite there being no visible subject to agree with:[8]

(150) _ Ha parlato.
Has (3sg) spoken.

(151) _ Ho telefonato.
Have (1sg) telephoned.

Another group of data supporting the same hypothesis is subject ellipses that display agreement morphology on the finite verb. In the examples taken from the French translation of *Bridget Jones' Diary* (Fielding 1998),[9] the verb agrees in person and number with an invisible subject. The verbs *rappelle*, *suis* and *ai*, as well as the reflexive pronoun, are in 1st person singular, indicating that there is an underlying structure containing a non-instantiated subject that can enter into an agreement relation with these elements:

(152) Ø me rappelle tout à coup que Ø portais jupe Lycra
me remember suddenly that wore skirt black
Lycra dernière fois.
Lycra last time

7. Not everyone agrees that *seg* 'self' is an anaphor, unlike *seg selv* 'itself'. Some would argue that *seg* is a reflexive particle since it does not have argument status and does not realize a theta role. *Seg selv* 'itself', on the other hand, does have argument status. For a more detailed discussion of anaphors in Norwegian, see Hellan (1988). For my purposes, the distinction between true anaphors and reflexive particles is not crucial. What is relevant is the fact that both *seg* and *seg selv* are required to be bound and to corefer with a subject; this forces the assumption of a silent subject in discourse ellipses.

8. The idea that these data demonstrate the existence of an underlying, syntactically active subject rests on the common theoretical assumption that the verb agrees with the subject and not the other way around. It is widely assumed that agreement morphology on arguments is inherent, while agreement morphology on the verb is not: the verb receives its morphological features from the argument with which it agrees.

9. The French translation was provided by Arlette Stroumza, here taken from Haegeman & Ihsane (2001, the glossing and translation of the examples are also theirs).

(153) En cherchant le lait Ø me suis aperçue qu' Ø
while looking (for) the milk myself am become-aware that
ai laissé filet
have left basket

(154) Ø suis tellement énervée que Ø me suis assise sur la télécommande.
am so nervous that me am seated on remote control

Naturally, none of these examples in can be reproduced in Norwegian, which lacks visible subject–verb agreement. There are, however, Norwegian predicative adjectives that agree with omitted subjects, as in (155)–(157), taken from headlines:[10]

(155) Slitne etter ferien.[11]
tired (3 pl) after holiday-the
'Tired after the holiday.'

(156) Sultne på Sultan-madrass.[12]
hungry (3 pl) for Sultan mattress
'Eager to get a Sultan mattress.'

(157) Fornøyde etter det første sofastuntet.[13]
content (3 pl) after the first sofa stunt
'Content after the first sofa stunt.'

In all examples, the predicative adjectives are morphologically plural, thus pointing to a phonologically unrealized subject antecedent.

These data support the hypothesis of underlying phi-features in the syntactic nodes in subject ellipses, despite the lack of lexical insertion. It is hard to see how one could otherwise explain the agreement patterns. I therefore conclude that the syntactic nodes in such ellipses are not radically empty, but contain a collection of grammatical phi-features that can trigger agreement on other elements in the sentence, such as the finite verb or a predicative adjective. Adopting this assumption affects the overall view of phi-features and the general agreement operation, explored in the next section.

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10. In certain dialects, there may not be a pronunciation difference between the singular and the plural form in the spoken register: *sliten* 'tired', *sulten* 'hungry' and *fornøyd* 'content' would in some dialects be both the singular and the plural form. Hence, the singular-plural distinction is more easily accessed in written registers.

11. http://www.aftenposten.no/nyheter/oslo/article1911723.ece, 30.07.2007

12. Aftenposten Økonomi 8.1.2005

13. http://laagendalsposten.no/nyheter/fornoyde-etter-det-forste-sofastuntet-1.6614373, 17.11.2011

5.2.2 Checking by valuation

Having established that silent elements enter into agreement relations with non-silent elements, we now turn to how this syntactic agreement process is best characterized. A central notion within the Minimalist Program is that of features:

> A morphosyntactic feature is a property of words that the syntax is sensitive to and which may determine the particular shape that a word has. Features seem to be the core elements of languages that relate sound and meaning. (Adger 2003: 24)

Interpretable features play a role in semantic interpretation, while uninterpretable ones do not. Hornstein et al. (2005: 291–292) illustrate this difference: the Portuguese DPs in (158)–(161) exhibit DP-internal agreement and the English sentence in (162) demonstrates subject-verb agreement:[14]

(158) o gato bonito
the.MASC.SG cat.MASC.SG beautiful.MASC.SG
'the beautiful tomcat'

(159) a gata bonita
the.FEM.SG cat.FEM.SG beautiful.FEM.SG
'the beautiful cat'

(160) os gatos bonitos
the.MASC.PL cat.MASC.PL beautiful.MASC.PL
'the beautiful tomcats'

(161) as gatas bonitas
the.FEM.PL cats.FEM.PL beautiful.FEM.PL
'the beautiful cats'

(162) She$_{[3.SG]}$ is$_{[3.SG]}$ nice.

In (158)–(161), information about gender and number is specified three times: on the determiner, on the adjective, and on the noun. In (162), number and person information is specified twice, in the DP and in the verb. According to Hornstein et al. (2005), at LF, this information is nevertheless computed only once. Although the features seem to convey the same information, some are interpretable at LF, while others are not. Only one piece of the repeated feature information is legible by LF, namely the information from interpretable features. If a given feature is interpretable, the recoverability of deletion requires that the feature not be deleted when checked. Checking only deletes uninterpretable features (Hornstein et al. 2005: 295).

14. Examples from Hornstein et al. (2005: 291–292).

A plural feature on a noun has an effect on the morphology of the noun and on its meaning. The plural feature of a noun influences semantic interpretation and is therefore interpretable. A plural feature on a verb, on the other hand, does not contribute to the meaning interpretation; it only agrees with the number feature of a corresponding noun. Hence, plural features on verbs are uninterpretable.[15]

In the Minimalist Program, agreement is generally analysed by means of the operation Agree (Adger 2003; Chomsky 2000b, 2001, 2004; Radford 2004; Hornstein et al. 2005) in which a probe searches for a relevant goal to agree with. Two types of features are assumed: valued and unvalued. Through the Agree operation, unvalued features must be valued by a matching valued feature in order for the derivation to converge. Adger (2003) formalizes the operation Agree as follows, where … = c-command, and uF = unvalued feature:

Agree:
X (F:val) … Y (uF:) → X (F:val) … Y (~~uF~~: val)

Radford (2004: 285) describes the operation as follows: "[l]et's suppose that agreement in such structures involves a c-command relation between a probe and a goal in which unvalued phi-features on the probe are valued by the goal, and an unvalued case feature on the goal is valued by the probe." Agree is further restricted with respect to locality: feature matching can only take place between a feature F and the closest matching feature F that c-commands it (Adger 2003: 222).

An important feature of Agree is that items may enter the syntactic derivation with some of their features already valued and others as yet unvalued. This diverges from earlier versions of the theory, such as the Move F approach, which assumed that all lexical items entered the derivation fully inflected and that the features were then checked in a spec/head relationship during the derivation.[16]

Now, we need to specify which features are initially valued and which ones enter the derivation unvalued. According to Chomsky (2000b), this correlates with the distinction between interpretable and uninterpretable grammatical features. Under this view, only interpretable features are fully valued in the lexicon. Uninterpretable features enter the derivation unvalued and acquire their value in the course of the derivation. Unvalued uninterpretable features are illegible both to the PF and the LF components. Consequently, every unvalued feature must be valued or the derivation will crash.

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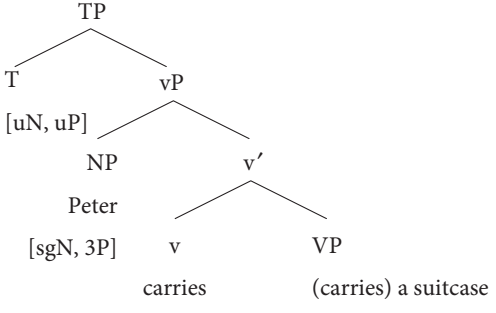
15. This can be seen as inheritance from traditional grammars, where it was commonly assumed that it was the predicate that agreed with the subject and not the other way around (Hornstein et al. 2005).

16. Consequently, it is possible to consider Agree a non-lexicalist alternative to MoveF (Hornstein et al. 2005).

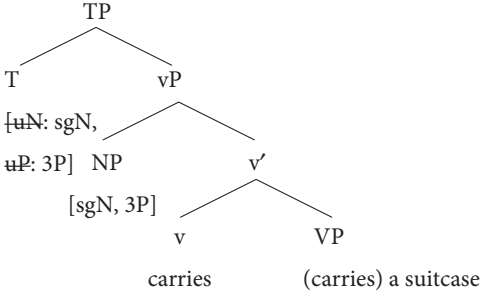
Because the subject-verb relation is relevant for my purposes, I briefly discuss how subject-verb agreement is analysed in the Agree system, based on Adger's (2003) implementation of the operation. Finite T bears unvalued phi-features (gender, number and person) that need to be valued. The subject DP bears inherently valued phi-features. In the Agree relation, finite T serves as a probe and the subject DP as a goal. Hence, the unvalued features are seeking a possible goal to agree with. Agree then holds between the valued phi-features of the subject DP and the unvalued phi-features of T. Through this relationship the unvalued phi-features on T are valued. Hence, the phi-features of the subject DP are transmitted to T.

Let us see how this proceeds in a simple sentence such as *Peter carries a suitcase*. The subject DP *Peter* bears the inherent phi-features 3rd person, singular.[17] Finite T bears unvalued phi-features. Through an Agree relation, the features of the subject DP value the features of the probe T, as in (163). The tree structures show the situation before and after the fulfilment of the operation Agree. In these representations, *u* = unvalued, N = number, P = person. ~~uN~~: sgN means that the unvalued number feature has been valued to singular.

(163)



(164)



17. In this derivation, I focus exclusively on the phi-features of the subject. Other features, such as tense features yielding the form *carries* instead of *carry*, are not discussed. I have not included gender specification in this case since it is generally assumed that English does not exhibit any specification of grammatical gender on nouns. It only expresses pronominal gender (Corbett 1991).

5.2.3 Semantic agreement

Some data pose challenges for this analysis. These examples guide my analysis of discourse ellipses, so I will discuss them in detail:

(165) Peter and Mary travel to London.

(166) Politiet er redde på jobb.[18]
police-the(SG) are scared (pl) at work
'The police are scared at work.'

(167) Har snakka med fleire, men politiet er framleis
have talked to several but police-the (SG) is still
interesserte i tips.[19]
interested (pl) in tips
'They have talked to several people, but the police are still interested in tips.'

(168) Flaut at russen er så snille.[20]
embarrassing that the graduates (3 SG)are so nice (pl)
'It is embarrassing that the graduates are so nice.'

(169) The police are right not to remain silent on civil liberties.[21]

(170) The police are a bunch of monkeys.[22]

In the minimalist analysis, finite T is assumed to exhibit unvalued phi-features which receive their value through Agree from the inherently valued interpretable features of the subject. However, the examples in (165)–(170) represent a challenge to this analysis. In (165), the subject consists of two DPs, *Peter and Mary,* each with the feature singular. The verb, on the other hand, has plural morphology. How can two singular DPs value a plural feature on the verb in T? It appears as if the Agree operation has to include some kind of addition mechanism, such that 1st person singular + 1st person singular = 1st person plural. Perhaps even more striking are (166)–(168), where the subjects are singular (*politiet* 'the police', *russen*

18. Headline from nrk.no: http://www.nrk.no/nyheter/distrikt/hedmark_og_oppland/1.7994871, accessed 13.02.2012

19. Headline from nrk.no: http://www.nrk.no/nyheter/distrikt/nrk_sogn_og_fjordane/1.7997543, accessed 15.02.2012.

20. Headline from nrk.no: http://nrk.no/nyheter/distrikt/nordland/1.7627395, accessed 10.05.2011.

21. Headline from Guardian.o.uk: http://www.guardian.co.uk/commentisfree/libertycentral/2009/dec/08/right-not-to-remain-silent, accessed 8.12.2009.

22. Headline from The economist.com: http://www.economist.com/node/5436867, accessed 26.01.2006.

'the gratuates'), while the predicative elements (*redde* 'scared', *interesserte* 'interested', *snille* 'nice') are plural. English (169) and (170) illustrate the same point. The subject *the police* is singular, while the verb is plural.

Such data seem to indicate a mismatch between visible morphology and the underlying abstract features triggering agreement. It appears as if it is not the morphologically visible features of the lexical words that trigger agreement and value the unvalued phi-features. The examples thus point to a cleft between visible morphology and agreement valuation; they point in the same direction as the elliptical examples. Both groups of data demonstrate a separation between visible morphology on lexical items and abstract grammatical features. The ellipses display agreement despite the lack of a lexically instantiated subject. In (165)–(170), the verb seems to agree with something other, maybe more abstract, than the visibly instantiated subject. But if the unvalued phi-features are not valued by visible features on the instantiated lexical words, how are they valued?

Examples such as these have been labelled *semantic agreement* (Corbett 2000; Radford 2004; Bosque 2006) and discussed by several scholars: Johannesen (1996), Sauerland and Elbourne (2002), Wechsler and Zlatic (2003), and Koppen (2005).[23] I will briefly present two accounts of the phenomenon.

Den Dikken (2001) notes that in British English, certain collective noun phrases headed by a formally singular noun can trigger plural agreement with the finite verb:[24]

(171) The committee has decided.

(172) The committee have decided.

Den Dikken labels these noun phrases *pluringulars*, which emphasizes the point that they seem to be singular and plural at the same time. He points out a distinction between singular- and plural-agreeing DPs, namely that they are characterized by collectivity in the case of the plural-agreeing type or individuality in the case of the singular-agreeing type. When a DP is conceived of as several people or things, a plural verb is used. When it denotes a unit, a singular verb is chosen. This insight is also noted in Quirk et al. (1985: 758): "[t]he choice between singular and plural verbs depends in BrE on whether the group is being considered as a single undivided body, or as a collection of individuals." The technical analysis proposed by den Dikken

23. Several of these authors deal with agreement in cases with coordinated subjects and propose explicit analyses for such cases. I will not go into this phenomenon in this book.

24. Since it is not the goal in this work to give an explicit account of the differences between British and American English, neither how such differences could be accounted for in an exoskeletal model, I will not into details about this.

is that pluringulars are pro-headed noun phrases; they are NPs headed by a plural null pronoun, as in (173). He further proposes that this structure instantiates an apposition-type structure corresponding to the apposition of elements in (174):

(173) $[DP_1\ pro_{\ [+\ PLUR]}\ [DP_2$ the committee $_{[-\ PLUR]}]$

(174) The agreement facts, the biggest pain in the neck, have eluded many linguists for centuries.

This analysis captures the idea that a pluringular DP is an amalgamation of a singular and a plural DP. Sauerland and Elbourne (2002) also discuss the fact that these DPs denoting groups can take either singular or plural verbal agreement:

(175) The Government is ruining this country.

(176) The Government are ruining this country.

The authors give a list of nouns that follow this pattern: "cabinet, committee, platoon, (political) party, pride, hive, team, regiment, battalion, bank, government, group, family, faculty, Senate, House (of …) set, squad." These nouns behave as if they were plural, but simultaneously display signs of being morphologically and semantically singular:

> They are morphologically singular in terms of overt morphology: *committee*, not *committees*, and so on. They are semantically singular in that it is still clear (…), that only one committee, battalion, or set is being referred to.
>
> (Sauerland and Elbourne 2002: 289)

Despite these clear characteristics of singularity, the nouns are interpreted as plural, which has certain consequences in the syntax. The plural behaviour is apparent on several diagnostics. The nouns can be used with the determiner *each* (177), they can license plural anaphors (178)–(179), they can bind plural pronouns (180) and they can be used with plural verb agreement (181). All these facts indicate plurality:

(177) The committee each received a pay-rise.

(178) I want the battalion to get themselves under cover.

(179) The Labour Party scare each other.

(180) The rugby team like their coach and the football team do too.

(181) {3,5,7,9} This set are all odd.

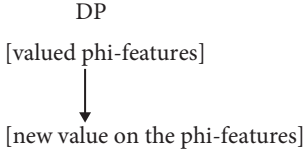
In addition to being able to bind plural pronouns, these nouns can also bind singular pronouns when used with plural verb agreement:

(182) All the rugby team are carrying its mascots and all the football team are too.

The analysis proposed by Sauerland and Elbourne (2002) is that British English DPs have, instead of one number feature, two distinct feature categories that have as values [singular] and [plural]. One of them is the traditional Number feature, which indicates how many things are being referred to. The other feature is *Mereology* and indicates "whether or not the entity under discussion is being conceived of as consisting of more than one member" (Sauerland and Elbourne 2002: 291). The argument is that certain processes, such as verbal agreement and the licensing of singular and plural anaphors and pronouns, can refer to either the Number or the Mereology feature. For subject-verb agreement, they postulate uninterpretable Person, Number, and Mereology features on T. These features are checked by the φ-features of the subject. The operation that copies φ-features from T and manifests them in overt verb endings, copies the Person feature and one of the Number and Mereology features.

In this analysis, we are forced to introduce a new feature into the derivation to account for the apparent agreement mismatch. This illustrates the consequence of attempting to analyse examples of semantic agreement within the Minimalist Program. To account for semantic agreement data in a lexicalist Merge-based model, one either has to introduce an additional feature, as Sauerland & Elbourne (2002) do, or argue that the phi-features of the lexical element undergo a change in course of the derivation:

(183)



In an example like *The police are nice*, where the subject has a morphological singular phi-feature but is conceived of as plural, one would have to argue that the phi-feature matrix itself was changed. This would violate the Inclusiveness Condition (Chomsky 1995): it would predict that the output of the derivation contains elements not present in the input.[25] In the analysis that I propose, the Inclusiveness Condition is obeyed.

5.2.4 An alternative analysis: Feature construal

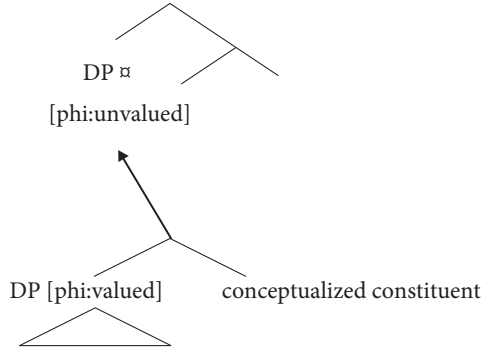
The two articles examined in the previous section propose slightly different analytical solutions to the issue of semantic verbal agreement. However, the underlying assumptions are the same: the agreement process appears to be sensitive to

25. The Inclusiveness Condition was proposed by Chomsky (1995: 225) and dictates that the output of a system cannot contain anything beyond its input.

semantic information about plurality or collectivity of the subject DP. This implies that information from the conceptual-intentional interface influences the feature specification of the subject or, possibly, the agreement process. The analysis I propose builds on this insight. I argue that the valuation of phi-features may depend on how the referent in question is semantically conceived. Hence, I will follow the basic insight of den Dikken (2001) although I propose a different formal analysis. My analysis aims to account for semantic agreement and discourse ellipses as well as for regular non-elliptical cases with no semantic mismatch. At first, this idea might appear to contradict the 'neo-Bouchardian' analysis I put forth. However, recall Bouchard's distinction between G-SEMANTICS, the semantics of the syntactic structure, and S-SEMANTICS, the conceptual meaning. The rudimentary G-SEMANTIC structure is in all cases subject to semantic enrichment: S-SEMANTIC content enriches the G-SEMANTIC meaning of the clause. This is what I will assume for semantic agreement.

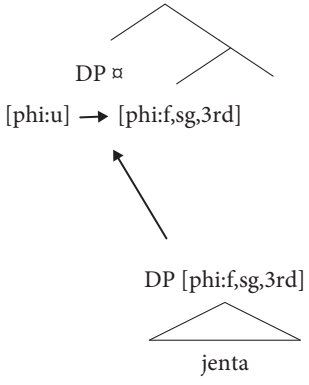
Adopting a non-lexicalist perspective, I argue that feature matrices are not directly tied to the nominal, or, more generally, lexical elements. If they were, the semantic agreement examples would be hard to account for. Instead, there are underspecified feature matrices linked to the syntactic positions. These feature matrices of the main structure are specified depending on what lexical items are inserted into the structure or the properties of the complex phrase constructed in the work space. Alternatively, in ellipses, they are specified depending on the conceptualized silent constituent, as illustrated in (184):

(184)



In most cases, what is conceived as being singular corresponds to morphological singular, as in (185) (the structures display only the insertion and valuation of the DP position) and the valuation process is straightforward. The features of the inserted DP value the features of the syntactic position directly.

(185) Jenta er pen
Girl-the is pretty
'The girl is pretty.'

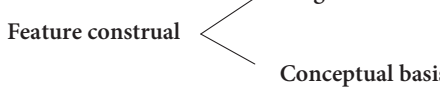


The semantic agreement examples bring to light exceptions in which it appears that a DP can provide a set of feature values different from the one indicated by the morphologically visible DP. To account for this, I propose a process of *feature construal* at the point of insertion into the main structure.

The first step is that the inserted DP is generated in the derivational work space, where its features are valued. When the DP is to be inserted into the main structure, two options are available. Either the process of feature construal takes as its basis the actual feature values of the inserted DP or, as in semantic agreement cases, it takes as its basis a conceptualized item which may trigger a different set of phi-feature values in the DP position of the main structure. In discourse ellipsis, lexical insertion does not occur, and feature construal is based on conceptual information about the non-inserted element. I will return to the analysis of ellipses in the next section.

At first glance, the feature construal process may seem trigger a change of feature values from the inserted DP to the DP in the subject position of the clause and hence violate the Inclusiveness Condition. But this is not the case. Instead, there are two possible ways of fixing the feature values of the syntactic node in the main structure, either the instantiated features of the linguistic DP or a conceptual item:

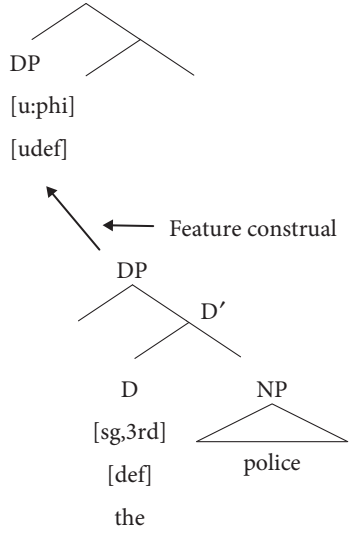
(186)



The process of feature construal influences the valuation process rather than the shape of the lexical DP itself. The examples clearly show that the subject DP itself retains its phi-features. Even if it is conceptualized as a collective plural, the subject

cannot be *the polices*, *the governments* or *the peoples*. I will therefore assume that the DP is constructed separately as a proper sub-tree in a separate work space,[26] stored in derivational working memory. Subsequently, the constructed DP is inserted as a whole into the subject slot in the sentence structure. This is parallel to the analysis proposed in Uriagereka (1999), where only a placeholder of the constructed DP is merged with the sentence structure. I will assume a late lexical insertion account also for the first merger of the inserted DP. I do not assume that the DP is constructed in a lexicalist manner, with lexical items directly projecting syntactic structure. Instead, the derivation at this point is parallel to the analysis I propose. Hence, I assume that the structure of the DP is merged first, with unvalued feature sets in the relevant positions. Thereafter, items from the lexicon are inserted to fill these positions.[27]

(187)



This idea of first constructing a syntactic substructure (the DP) and then inserting it into the overall structure resonates with Chomsky's (1957) early ideas of generalized transformations, which were assumed to take small structures and combine them.

26. How is the introduction of such a work space, in which sub-trees are generated, compatible with processing? Thanks to an anonymous reviewer for raising this issue. The structures generated in the work space need to obey the overall structure of the sentence, one of the five frames (cf. 3.3.3.). If a DP constructed in work space is elided, the whole constituent must undergo ellipsis. Ellipsis cannot involve only certain parts of the DP constituent. The recoverability principle is probably sensitive to constituency. It has been established that only constituents can be recoverable and undergo ellipsis (Akmajian & Heny 1975). See also Chapter 6.6. I do not, however, have a full account of how this analysis is to be understood from a processing perspective.

27. The merging process internal to the inserted DP is not crucial for my purposes her and I will not discuss it.

Importantly, this means that the features of the inserted items themselves remain stable.[28] The process of feature construal affects only the features of the position, not the features of the inserted elements. The apparent change of feature values does not imply a change, but rather a fixing of feature values which are different from the phi-feature set of the instantiated inserted DP. This is what may lead to the apparent agreement mismatch in semantic agreement. Feature construal in these cases produces a situation where the feature values of the instantiated inserted DP are different from the values of the DP in the subject position, the latter being the ones that enter a probe/goal agreement relation with the verb.

This analysis does not entail a violation of the Inclusiveness Condition, since the features of the items constructed in the derivational work space are not altered, nor are any new features inserted into the derivation. Instead, unvalued feature matrices are valued in the course of the derivation.

In (185) we saw an example with no semantic mismatch. The figure in (188) shows an example with semantic agreement. Here, the feature construal process takes as its basis a conceptual construal of the content of the DP rather than the morphological features of the linguistic DP; thus the features of the inserted DP

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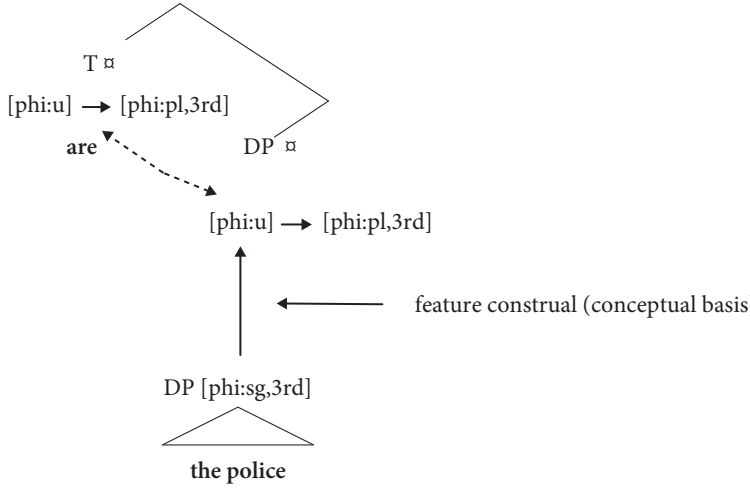
28. In general, the analysis proposed here is unproblematic with respect to the feature types number and person. If an elided subject is conceptualized as plural, it generally triggers plural features on the verb or the anaphor. Likewise, in languages displaying person agreement, an elided 1st person subject will trigger 1st person morphology on the corresponding verb. However, when it comes to gender agreement, the picture is slightly more complicated. As is well known, there is a distinction between grammatical and semantic gender. It is not mandatory that the grammatical gender of a lexical item reflect its semantic gender. For instance, the grammatical gender for the Norwegian word *kvinne* (woman) is masculine, and the grammatical gender for *barn* (child) is neuter, while the grammatical gender for *seter* (summer mountain farm) and *bygd* (village) is feminine. Undoubtedly, the grammatical gender in these cases has nothing to do with the semantic substance of the lexical items in questions. The same situation is found in the German word *Mädchen* (girl), which is neuter. Since German is more illustrative than Norwegian, displaying richer agreement, I will use a German example to illustrate my point. Imagine a situation in which there is a picture of a little girl. Someone is talking about the girl, referring to the picture. Doing so, he uses discourse ellipsis and leaves the subject out.

1. (pointing to the picture of a girl): ~~Das Mädchen~~/~~Sie~~ sieht sehr schön aus.
   ~~That girl~~ / ~~She~~ looks very cute (neuter/*feminine)
   'That girl/She looks very cute.'

The null subject will trigger neuter rather than feminine agreement on the predicative adjective. This entails that the process of feature construal cannot in this case be based on a purely conceptual image of the item omitted; if so, the feminine features would be triggered. Rather, feature valuation is based on the grammatical gender of the omitted item, in this case neuter. Hence, it appears in this example that the logical gender cannot override the grammatical gender. Conceptual valuation of gender thus appears to be impossible.

and the features of the structural subject position will not have the same value. Moreover, an Agree relationship is established between the probe (T) and the goal (subject). Importantly, it is the features of the position, not the features of the inserted DP, that enter this Agree relation and thus influence the feature values of the tensed verb. The feature construal process takes place at the point of insertion. The Agree relation then remains a purely structural relation between phi-features of the probe and the goal.[29] More specifically, in an example like *The police are nice*, the subject DP is first merged independently in a proper subtree in the derivational work space and the morphological phi-features are then valued. Hence, the visible DP is singular, not plural (**The polices*). When the DP is to be inserted into its slot in the sentence structure, there are unvalued feature matrices in the node, waiting to be valued. (188) does not display the full derivation, but it illustrates the relevant processes of insertion, feature construal and agreement between the T-probe and the DP-goal.

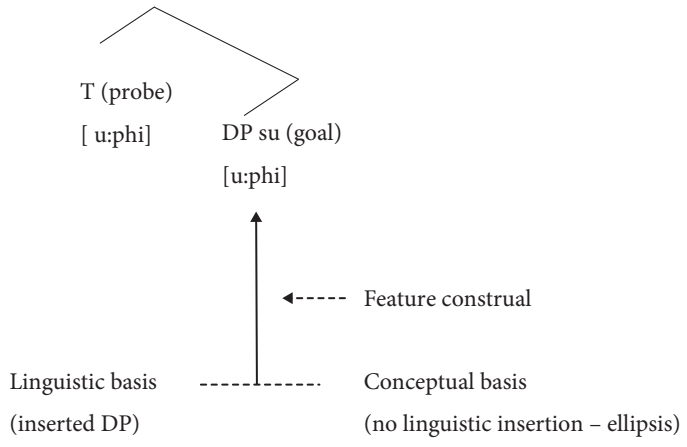
(188) The police are nice.



The figure in (189) summarizes the alternatives with respect to valuation of the features of the DP position in the main structure. It is meant to cover both regular cases and cases of semantic agreement. Feature construal is assumed to occur in all cases. What differs is what this process takes as its basis for fixing the features in the matrix structure:

29. See Josefsson (2006) for a similar Late Insertion-account of semantic and grammatical gender in Swedish.

(189)



In the regular case, a linguistic element is constructed in the derivational work space and then inserted. Feature construal takes as its basis the instantiated linguistic features of the inserted item. In the case of semantic agreement, a DP is also constructed in the work space and inserted and feature construal still takes a conceptual basis when the features of the main structure are valued.[30] This option is also available for ellipsis, where there is no insertion. In ellipsis of phrases, there are two possible derivations. Either feature construal takes a pure conceptual basis, in which case no linguistic element is constructed in the work space, or the silent element *is* constructed in the work space, but not inserted. Which alternative is correct, is an open question.[31]

Even though the figure juxtaposes the linguistic and the conceptual basis of feature construal, there is really an asymmetry of status between the two. Both linguistic and purely conceptual phrases are assumed to pass through a conceptual filter. In regular cases, the linguistic phrase passes through the filter without a change in feature construal. In semantic agreement cases, when the phrase hits the conceptual filter, feature construal takes a conceptual rather than a linguistic basis. For ellipsis of phrases, both possibilities are available.

This analysis entails that there are no inherently valued features in the clausal backbone since the traditionally inherent features must also be valued externally, by the insertion of lexical items or XP constructed in the work space. Phi-features

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30. Behind a linguistic phrase, there is always a concept. The difference between a regular case and a case of semantic agreement is that in the former, there is no mismatch between the instantiated features and the conceptual information. In cases of semantic agreement, there is a mismatch.

31. I discussed in Chapter 3 that insertion into the main structure is governed by harmony. Following this line of thought, I will argue that the two types of feature construal represent two types of harmony. Either direct linguistic or conceptual linguistic harmony is required to restrict insertion.

can be valued in two different ways. One is external, from inserted lexical items/XPs or more specifically the feature construal that happens on the basis of these items. The other way is internal, via the operation Agree, from the feature specifications of one structural position to another one inside the same sentence structure, as in the case of e.g. anaphor agreement.

My analysis does not mean feature specification is random and without any connection to formal categories. This exceptional valuation can only be assumed to be active in cases where it is natural that a notion is conceived of in a different way from what morphology indicates, i.e., in cases of semantic agreement. Separating the specification of features from the morphological form of the single word *in principle* makes it possible to account for 'exceptions' from the norm.

This analysis implies two separate sets of features for the subject: one for the subject DP that is pronounced and another for the subject position relevant for valuing the features of the verb, as illustrated in (188). It is the features of the position which enter into probe-goal relations, as seen in the examples of semantic agreement, where the verb's agreement is at odds with the pronounced subject.

A parallel example are the verbs *can* and *could*; The difference is formally one of tense, but in actuality encodes modality. More specifically, *could* is past tense, but its usage often indicates present, with a modality effect. This shows another case where the valuation of the formal features of the pronounced phrase appears to be distinct from the grammatical effect of the same item in the clause. Hence, in this case too, there is a need to distinguish two sets of features, one for the clausal position and one for the inserted, pronounced phrase.

We can conclude that it is the features of the structural position that trigger agreement. This is in line with the connectivity effects in discourse ellipsis, which are also triggered by the features of the position, not by the features of the lexical item occupying the position.

This is not surprising if we consider what is really intended by the notion of feature. A feature is not identical to its actual morpho-phonological realization. It is an abstract entity that can yield concrete morphological consequences on lexical items (Adger 2003). From this perspective, the idea of separating features from the morpho-phonological form is not revolutionary. It is a matter of taking seriously the abstractness of features.[32]

This explanation is possible in a model assuming late lexical insertion. In a lexicalist merge-based model, this would be more problematic; one would be forced to assume a change in the features of the element in the position. In my analysis,

32. In this respect, my proposal bears certain similarities to the theory of Distributed Morphology (Halle & Marantz 1993; Harley & Noyer 1999; Embick & Noyer 2007), where syntax is not assumed to manipulate lexical items; it generates structures by combining abstract morpho-syntactic features. However, I do not apply the entire DM model of grammar.

there is no feature change: the features of the inserted elements remain unaltered and the features of the structural position, which were unspecified at the outset, receive their value in the course of the derivation. Hence, the analysis I propose implies not only late lexical insertion, but also late fixation of features.

Such a separationist view also makes it easier to explain optionality with respect to phonetic realization, as in (190)–(195).

pro (in Italian)

(190) _ vado a scuola.
go (1sg) to school

(191) Io vado a scuola.
I go to school.

PRO

(192) Gjør _ det!
do that

(193) Gjør du det!
do you that

Ellipses

(194) _ funker litt dårlig. NoTa
works quite badly

(195) Det funker litt dårlig.
it works quite badly

If grammatical features are incorporated within lexical items, it is difficult to explain why the subjects in (190)–(195) are sometimes realized, sometimes not, even though the same agreement patterns occur in the sentences independently of this instantiation. If, on the other hand, the features are present in the structure independently of lexical insertion and can be valued from a conceptual item, it follows naturally that lexical insertion is not restrictive.

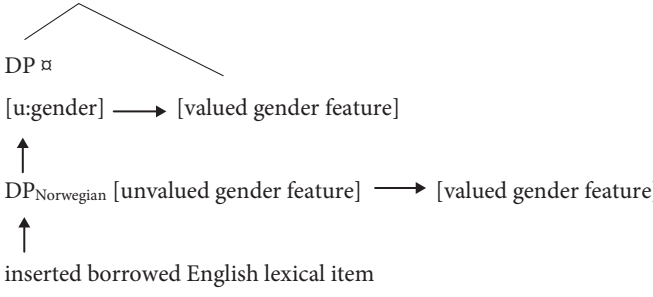
Loan words, more specifically English loan words in Norwegian, fit nicely into the proposed analysis. For instance, English nouns borrowed into Norwegian need to receive grammatical gender even though there is no gender specification in English:

(196) a. a manager – en/*et manager (MASC/*neut)
b. a party – et/*en party (neut/*MASC)
c. a shopping bag – en/*et shopping bag (MASC/*neut)

These data can easily be accounted for within the late insertion analysis. It is a parametric difference between English and Norwegian that all Norwegian nouns must be specified for gender. There is no such gender specification in English, so in an English sentence structure, there is no slot for a gender feature in DP positions. In

Norwegian, all DPs are generated with an unvalued gender feature, waiting to be specified by lexical insertion. When an English noun without gender specification is borrowed into Norwegian, it must be assigned gender. More specifically, the unvalued gender feature of the Norwegian DP structure requires valuation even when it is filled by an English lexical item. Importantly, I will assume that the DP is Norwegian in its structure before it is inserted into the structure of the main clause. Hence, a gender specification is assigned to the English noun as it is incorporated into Norwegian by being merged in a Norwegian DP. For a more detailed analysis of gender assignment within this version of an exoskeletal model, see Nygård & Åfarli (2015), who argue that all inflectional categories (GEN, NUM, DEF) in the lower functional frame of the DP contain open or unvalued features at the start of the derivation; each open category offers a limited set of possible values. During the derivation, the actual value for a category is selected from the values available.

(197)



In certain cases, the same word can actually have two different genders in Norwegian:

(198) a. en/et image (MASC/neut)
an image

b. en/et design (MASC/neut)
a design

c. en/et eple (MASC/neut)
an apple

This can be explained easily in my analysis. These examples show that the connection between a lexical word and formal phi-features is looser than assumed in endoskeletal models, where the features of lexical items are projected into syntax. For these cases, one would have to assume two different words, even though it is really the same word with a different gender feature.[33] In my analysis, one could account for these examples by arguing that gender specification is not a property of

33. An alternative account would be that this is due to optional features or underspecification of features. See e.g. Steriade (1995).

the lexical item, but a structural property of the DP. Some speakers insert the lexical item into a DP-frame specified for masculine, others into a DP-frame specified for neuter. This gives rise to the attested variation.[34]

To sum up, I proposed that a process of feature construal occurs at the point of insertion and that the fixation of feature values takes as its base either instantiated features of the linguistic DP or a conceptual item. I have shown how this can account for regular cases as well as cases of semantic agreement and also for ellipsis, which will be more thoroughly explored in the next section.

5.2.5 Feature construal in discourse ellipses

In non-elliptical cases, the feature matrices are generally valued through feature construal. In cases of no semantic mismatch, feature construal triggers no other feature specification in the node compared to the features of the inserted DP. In cases of semantic agreement, feature construal takes as its basis a conceptual element; this leads to a fixation of feature values different from the values of the features of the inserted DP.

Most importantly for my purposes, this analysis seems promising for elliptical data. In ellipses, there is no inserted DP. If the features in the node are not valued, the derivation crashes. The data show that the derivation does not crash. On the contrary, discourse ellipses are perfectly acceptable. In my analysis, grammatical features are separated from their lexical concepts. The relevant features are assumed to be present independently of lexical insertion. They are all unvalued at the outset, but require being valued in course of the derivation. Both possible bases for the process of feature construal are in principle available in ellipsis. One could argue that in ellipses, the features in the structural position are valued from a non-linguistic conceptual item. Under this view, there is no lexical insertion. Alternatively, one could argue that a linguistic but silent item is inserted, more specifically that a fully defined DP is constructed in the work space and inserted, and that the only thing missing in this DP is the sound, i.e., phonological features. Which of the alternatives is correct, non-insertion or insertion of a silent linguistic element, is likely to remain unsolved.[35] For reasons of derivational and theoretical economy, I will

34. However, it appears that the gender feature is less flexible than number or definiteness. Any noun can occur as singular or plural, or as definite or indefinite, but the gender does not vary in this way. Gender is specified for the noun once and for all.

35. This issue also relates to the following question: Is there a difference between a silent lexical item and a conceptual element? The analysis proposed in this book might suggest that there is no such difference. Yet, I will not take a firm stand on this issue since it does not seem solvable within the frames of this work.

assume the first alternative and argue that there is no insertion in ellipses and that a pure conceptual item fills the silent gap.

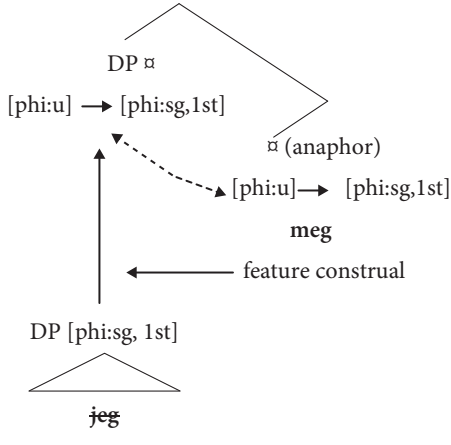
Ellipses involving binding of anaphors, subject/verb-agreement and predicatives agreeing with omitted subjects, will now receive the following analysis. Firstly, the grammatical relations and restrictions within the main sentence structure are operative just as in a complete sentence. I have argued that the syntactic nodes of the main structure contain underspecified feature matrices valued through feature construal in the course of the derivation. Thus, when they are valued, the phi-specified goals may enter into an Agree relation with unvalued probes elsewhere in the structure, in a manner parallel to the functioning of Agree in full-fledged non-elliptical clauses. Importantly, the difference between ellipsis and a non-ellipsis is defined at the point of insertion. In a non-elliptical sentence, a linguistic element is inserted; in ellipsis, it is not. The features of the structural position are valued either way.

To illustrate my view, let's look at an example (199):

(199) ~~Jeg~~ bekymrer meg ikke, jeg liksom. NoTa
~~I~~ worry me$_{\text{REFL}}$ not I like
'I don't worry, I don't.'

I argue that the subject position contains abstract unvalued phi-features valued through feature construal, either from a pure conceptual basis or from a linguistic DP constructed in work space, but not inserted. Next, through internal Agree, these phi-features of the subject value the features on the anaphor *meg*:[36]

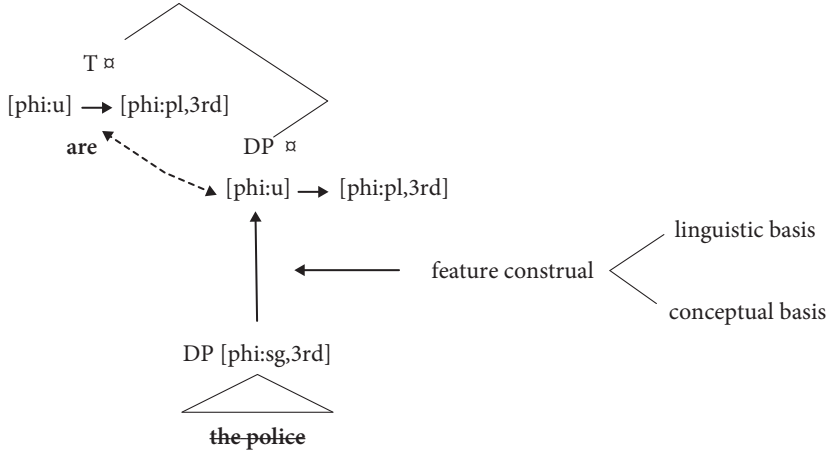
(200)



36. This presupposes a specific analysis of anaphor binding (see Reuland 2011). Since binding of anaphor is not my focus, I will not discuss these mechanisms any further. I have not included a full analysis of the sentence structure since what is of primary interest here is the agreement relation between the subject and the anaphor.

Moreover, if we turn the example *The police are nice* (188) into subject ellipsis, the analysis remains the same as for the non-elliptical case, except that the DP subject is not inserted. Feature construal still has a conceptual basis:

(201) ~~The police~~ are nice.



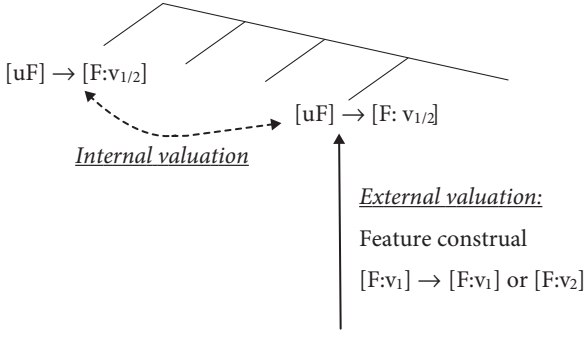
Expletive subjects can be zero in discourse ellipses. Unlike in semantic agreement or ellipses of referential arguments, one can hardly postulate that it is a conceptual element that influences the phi-feature valuation of null expletives. I propose that the syntactic system forces a feature construal for all null elements since otherwise the derivation would crash. Hence, a null expletive must be assumed, or at least the features must be valued as if an expletive were inserted. The fact that feature construal must occur forces us to assume null expletives. I will assume that the insertion of expletives is a last resort condition applied to feature construal. Marantz (1991) also argues that expletives are inserted as last resort to satisfy the EPP.

I have argued that the valuation of features happens through feature construal, which can start from one of two bases, a linguistic or a conceptual one:

a. from an inserted lexical item
   i. with no feature mismatch
   ii. with feature mismatch – feature construal (in semantic agreement)
b. from the discourse – through feature construal (in discourse ellipses)
c. sentence internally – through a probe-goal relation

The processes are illustrated in (202):

(202)



To sum up, the analytical model adopted here is one where syntactic structure contains unvalued feature matrices prior to the insertion of lexical items, or more specifically, insertion of structure chunks from the derivational work space. All features must be valued in the course of the derivation. This can be formulated as a well-formedness criterion on syntax; in order for the derivation not to crash, all features must be valued.

CHAPTER 6

Semantic licensing restrictions

In this chapter, I investigate *why* elliptical constructions are possible. What kinds of elements can be non-realized, from which positions, and under which conditions? Why are some ellipses acceptable and frequently attested, while others are not? What are the restrictions governing discourse ellipses? Recall that discourse ellipsis includes a variety of subtypes:[1]

Omitted referential subject

(203) ~~Jeg~~ husker litt fra jeg var åtte. NoTa [2]
~~I~~ remember some from I was eight
'I remember a little bit from the time I was eight.'

Omitted expletive subject

(204) ~~Det~~ sto et eller annet om "rebooting" og sånn påskjermen. NoTa
~~it~~ said something about "rebooting" and such on screen-the
'It said something about "rebooting" and stuff on the screen.'

Omitted referential subject and auxiliary verb

(205) ~~Jeg har~~ vært i masse slåsskamper på barneskolen. NoTa
~~I have~~ been in lots of fights in primary school
'I have been in lots of fights when I went to primary school.'

Omitted expletive subject and auxiliary verb

(206) ~~Det hadde~~ vært litt artig å holde på med musikk. NDC
~~it had~~ been a little fun to deal with music
'It would be quite fun to work with music.'

Omitted referential subject and copula verb

(207) ~~Jeg er~~ født i Tromsø og oppvokst her. NDC
~~I am~~ born in Tromsø and grown up here
'I am born and raised in Tromsø.'

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1. This list is a simplification of the empirical facts. There is a rich variety of subtypes, where the degree of discourse prominence correlates with the range of possible ellipsis types. Also, regular discourse ellipses must be distinguished from slips of the tongue, a theoretically crucial distinction not always empirically evident.

2. NoTa stands for Norwegian Speech Corpus – the Oslo part.

Omitted expletive subject and copula verb

(208) ~~Det er~~ svært stor forskjell på klientellet tror jeg altså. NoTa
~~it is~~ very large difference on clientele-the think I so
'The clientele is very varied, I really believe.'

Omitted adverbial

(209) ~~Så~~ setter dem seg der og drikker kaffe mens dem liksom
~~so~~ sit them self there and drink coffee while they like
setterpå karakterene til oss.
seton grades for us
'Then they just sit down and drink coffee while they like decide our grades.'
NoTa

We know that sentence-initial elements are more easily elided than elements in other positions of the clause; the position [SPEC,CP] seems particularly vulnerable. The data show that occasionally elements in other positions can also be non-instantiated. This is particularly true of elements in the C-position. In Chapter 2, we concluded that the topic drop branch of analyses (Huang 1984; Sigurðsson 2011, among others) needs to be revised to cover the attested empirical patterns. Some proposals have attempted to account for discourse ellipses that display silent elements in positions other than [SPEC,CP]. In what follows, I first discuss two possible accounts: a purely phonological approach to deletion (6.1) and an analysis of English auxiliary drop (6.2). I argue that these two accounts are unsatisfactory. In 6.3, I present my view on licensing and argue that we need to integrate both structural and semantic/pragmatic factors in order to account adequately for the data attested. Discourse ellipses are governed by both structural and semantic/pragmatic licensing conditions.

6.1 Phonological deletion

The data show that omissions primarily occur sentence-initially. This has led to arguments that the deletion is purely phonological, targeting the linear string from left to right (Napoli 1982; de Clercq 2009). Others, however, claim that the omission is sensitive to syntactic restrictions. Napoli (1982) proposes that there are general phonological rules in English which delete lightly stressed initial material. The material in question can range from whole phrases to single words or even parts of words:[3]

(210) a. Wish Tom were here. (I wish …)
b. You seen Tom? (Have you …)
c. Seen Tom? (Have you seen …)

3. The examples are taken from Napoli (1982).

d. Fine friend you turned out to be! (A fine …)
e. Paper boy's here. (The paper …)
f. Cat got your tongue? (Has the cat …)
g. 'Fessor you expected is here. (The professor…)
h. 'Fessor arrived yet? (Has the professor …)
i. Soon as your mother arrives, I'm leaving. (As soon …)
j. 'Sgusting as John is, I still love him. (As disgusting …)
k. 'Spect you're waiting for your mum, huh? (I expect …)
l. 'Splains it very well. (She explains …)
m. Hair's too long! (Your hair …)
n. Good thing you decided to come along. (It's a good …)
o. You want me to leave, just tell me. (If you …)
p. Want me to leave, just tell me. (If you want …)

These deleted elements are utterance-initial. If several items are omitted at once, they must be linearly adjacent. For Napoli, the deletion is purely phonological, and not syntax-sensitive. This is supported by the fact that there is a rich variety of missing initial parts, including both constituents and non-constituents. According to Napoli (1982: 86), "items such as subjects, auxiliaries, determiners, possessive pronouns, clause introducers, initial syllables or parts of syllables of words, and combinations of these can be missing." Unlike a syntactic rule, a phonological deletion rule can account for all kinds.

If this analysis were accurate, it should be possible to delete any constituent, any part of a constituent or even several constituents arbitrarily, as long as the deletion is sentence-initial and takes place from left to right in the linear string. The examples in (211)–(213) show this is not the case. The examples are Norwegian, but the point is more general:

(211) *~~Jeg misliker~~ sterkt at Viktor liker fisk til middag.
~~I dislike~~ strongly that Viktor likes fish for dinner
'I strongly dislike the fact that Viktor likes fish for dinner.'

(212) *~~Viktor liker laks~~ med poteter til middag.
~~Viktor likes salmon~~ with potatoes for dinner
'Viktor likes salmon with potatoes for dinner.'

(213) *~~Til~~ middag spiste hun fisk.
~~For~~ dinner ate she fish
'For dinner she ate fish.'

In (211), the subject and the finite main verb are unrealized; in (212), the subject, the finite verb and the object are left out; and in (213), only a preposition is left out, hence not a full constituent. In all cases, the deletion occurs sentence initially from left to right in the linear string. Yet, all cases are unacceptable. A purely

phonological rule like the one proposed by Napoli (1982) is not plausible, simply because it would over-generate.

Non-subject initial discourse ellipses provide further evidence against a phonological deletion account. In subject-initial ellipses, it is possible to omit only the subject or both the subject and the finite auxiliary in C, as in (214).[4] In sentences where a non-subject is topicalized, only the first constituent can be omitted, as in (215):[5]

(214) Jeg har /~~Jeg har~~/ * Jeg ~~har~~ bodd et år i London. NoTa
I have lived one year in London
'I have lived in London for a year.'

(215) a. Vi tenkte vi skulle prøve det reisebyrå som heter Nazar
'We thought we should try that travelling agency called Nazar.'
b. ~~Det~~ har /* Det ~~har~~ / * ~~Det har~~ jeg sett i katalogen ja. NoTa
that have I seen in catalogue-the yes.
'Yes, I have seen it in the catalogue.'

This empirical pattern presents a challenge to Napoli's (1982) view. I will propose an alternative analysis of these data in Chapter 7. For now, I conclude that an analysis of discourse ellipses that predicts free phonological deletion from left to right in the linear string is not satisfactory.

6.2 Deletion through movement

Fitzpatrick (2006) investigates English auxiliary drop, i.e., questions where a fronted auxiliary is not pronounced:[6]

(216) (Does) anybody want a hot dog?

(217) (Has) anyone seen John today?

(218) (Is) anybody going to the game?

(219) (Do) you have a pen?

(220) (Are) you ok?

(221) (Has) anyone told Mary we're leaving?

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4. Lexical main verbs can occasionally also be omitted, if they are strongly discourse prominent, but ellipsis of auxiliaries is far more frequent.

5. The acceptable elliptical variants are taken from the NoTa corpus. The unacceptable variants are constructed.

6. In Fitzpatrick's account the term auxiliary covers both *have* and *be* as well as the dummy verb *do*.

In aux-drop sentences the raised tensed auxiliary, though present early in the derivation, is interpreted neither phonologically (it is not pronounced) nor semantically (it does not contribute to the tense interpretation of the sentence). Fitzpatrick's (2006) argument is that even though these constructions may look like deletions, they should be analysed as syntactic movement out of a phonologically and semantically interpreted domain. Since English aux-drop questions behave syntactically very much like their full-fledged versions, it is argued that they cannot be bare VPs, but contain higher functional material.[7]

Fitzpatrick (2006) argues that an explanation based only on recoverability would fail since aux-drop is only licit when the missing auxiliary has been raised to the root level and would be the left-most constituent in the pronounced structure.[8] The auxiliary is thus merged and then deleted.[9] So, what characterizes the deletion process? A purely phonological deletion rule leaves unexplained the restricted set of tense and modal interpretations possible under aux-drop. Also, such a rule should in principle apply to any auxiliary, even modals. Yet, dropping of semantically content-bearing modals is not possible. A brute-force syntactic aux-deletion rule provides no explanation for the restricted context in which auxiliary drop can

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7. Various arguments against truncation are presented. Firstly, high adverbs and negation are possible in aux-drop sentences. Such elements are generally assumed to be situated above the VP, which entails that aux-drop questions cannot be derived from bare VPs. Secondly, if we assume that the interrogative meanings of these questions are due to a particular structural component situated in the left periphery, the fact that aux-drop sentences are questions is evidence that this component is structurally present. Moreover, Fitzpatrick argues that aux-drop questions do not behave like Default Case environments. In English, such environments give rise to accusative case, unlike in aux-drop questions, where nominative subjects are preferred.

8. If recoverability were a sufficient explanation, aux-drop should be permitted in 1, since the future meaning is expressed by the adverbial *tomorrow*, and in 2, where the auxiliary *has* is recoverable from the morphology of the participle *been*. Yet, this is not the case:

(1) Someone *(will) go tomorrow.
(2) Someone *(has) been in my office

9. He claims that one might not "recover" the content of the auxiliary at all since a structure containing no explicit tense specification might still be interpretable on its own terms. Certain languages (Haitian Creole & Fòngbè) allow for tenseless main clauses. Fitzpatrick argues that the tense interpretation in these languages seems to be determined by the inherent aspect of the predicate and the specificity of the object. This is known as *the factative effect* (Fitzpatrick 2006), entailing that tense interpretation of aux-drop questions is not free.

So why is factativity attested in English aux-drop questions, but not elsewhere in the language? Fitzpatrick stipulates that the tense-marked auxiliary, although present at some point in the derivation to ensure proper phrase structure and case marking, is not present in the representation submitted to phonological and semantic interpretation.

apply (raised, root-level, initial auxiliaries). Fitzpatrick therefore concludes that a syntactic deletion analysis of aux-drop is also problematic.

Instead, he explores an approach based on the theory of cyclic spell-out (Chomsky 2000b, 2001). When a phase is spelled out, the complement of the phase head is sent to PF and LF for interpretation (Fitzpatrick 2006). Thus, when the phase headed by C is spelled out, only TP is interpreted. The left periphery is not affected. It is generally assumed that matrix questions are root CPs. Hence, to assure that the root CP is also interpreted, an extra stipulation is needed, stating that the remainder of the clause, i.e., C and [SPEC,CP], is spelled out and transmitted to the interfaces. Fitzpatrick argues that this additional operation does not apply in all cases. Importantly, it fails to apply in aux-drop questions. Under this analysis, aux-drop questions are derived as follows: Merge TP (with auxiliary) with C and move the AUX to C. CP is then spelled out, but only TP is interpreted (sent to LF and PF). Fitzpatrick (2006) further assumes that since matrix questions are root CPs, it must be additionally stipulated that the root (i.e., the CP) is also interpreted. He notes that this extra operation is not obligatory in all cases and that aux-drop is one case where it fails to apply.

This analysis predicts the three relevant conditions: *aux-raising*, *root-level* and *initiality*. Firstly, raising is required to remove the auxiliary from the domain that is sent to PF and LF for further computation. Secondly, aux-drop can only occur in matrix clauses. An embedded clause will necessarily be contained in an interpreted domain and thus be interpreted. Finally, a non-initial auxiliary would lead to similar results. To sum up, this deletion-through-movement analysis states that omission of an initial auxiliary in questions is the result of an auxiliary moving outside the domain where it would otherwise be phonologically and semantically interpreted.

I will not adopt this proposal in my analysis of Norwegian discourse ellipses. There are several reasons for this, theoretical as well as empirical. The argument is that aux-drop is possible only when the auxiliary is raised to the root level and is the left-most element in the pronounced structure. Yet, Norwegian data show auxiliary drop both in questions and in declaratives:

(222) ~~Har du~~ kjørt mye skuter i påska? NDC
~~have you~~ driven much scooter in Easter
'Have you been driving scooter a lot during Easter?'

(223) ~~Jeg har~~ bodd der hele livet mitt egentlig. NoTa
~~I have~~ lived there whole life-the mine really
'I have lived there for all my life, really.'

In the interrogative, the auxiliary is the left-most element, but in the declarative it is not. In both cases, the subject is easily dropped together with the auxiliary. Thus, Fitzpatrick's analysis applies to a selected set of data. Discourse ellipses cover

a broader set of ellipsis types, and it is not clear how Fitzpatrick's analysis could account for these cases.

Fitzpatrick's approach rests on purely structural mechanisms and places the explanatory load on syntactic processes. I agree with the rejection of a purely phonological deletion, but I do not agree that recoverability conditions are irrelevant. As we will see in the next section, recoverability does influence the licensing of discourse ellipses. I argue that in order to provide an adequate account for discourse ellipses, it is necessary to integrate both structural and semantic aspects into the explanation. In what follows, I will attempt to do so.

6.3 Semantic identity and structural licensing restrictions

The literature on structural ellipses tends to distinguish two kinds of well-formedness conditions (see Lobeck 1995; Merchant 2001). *Recoverability conditions* require that it must be possible to reconstruct the semantic content of a silent constituent; otherwise, it leaves a hole in the semantic representation of the sentence. An identity relation is therefore established between the ellipsis site and its antecedent, i.e., the constituent the elided element points back to. Ellipses are also governed by *formal licensing conditions*, which restrict the syntactic environment in which an ellipsis is allowed. For discourse ellipsis, a preliminary structural licensing condition could be the following: 'Only sentence initial elements can be silent and only complete constituents in the C-domain can be elided'.

Recoverability and structural licensing conditions work together to determine whether an ellipsis is well-formed. The overall goal of this chapter is to specify the relevant conditions for discourse ellipses. Conditions of both kinds will be described, and I will discuss how they work, both separately and together. In discourse ellipsis, sometimes recoverability and licensing conditions point in different directions; it is then interesting to see which requirements take primacy. In some cases, the structural restrictions can be overruled by contextual factors: if something is sufficiently discourse prominent, it can be elided even if the structural restrictions dictate otherwise, as shown in (224)–(226):

(224) Noen ganger har jeg noe å lese på, andre ganger
sometimes have I something to read, other times sit
setter Ø meg og strikker litt. NoTa
myself$_{\text{REFL}}$ and knit a little
'Sometimes I have something to read, other times I sit down an knit for a while.'

(225) # Spiser ø til jul.
ø eat ø for Christmas
'I eat it for Christmas.'

(226) A: Spiser du ribbe, eller?
eat you rib or
'Do you eat pork rib, or what?'
B: ø Spiser ø til jul.
ø eat ø for Christmas
'I eat it for Christmas'

The dropped elements are sentence-medial, which violates the hypothesized structural restriction: 'delete only from the C-domain'. Yet, if (225) is uttered as a response to (226), where the elided element is made discourse-active, the ellipsis is acceptable.

Being dependent on context is common for discourse ellipses. Most discourse ellipses are unacceptable in random contexts, even if they are structurally licit, as in (227). Yet, in (228), where the context is more prominent, so the semantic content of the elided object is identified, the acceptability of the ellipsis is significantly improved:

(227) #ø Leste jeg i fjor.
read I last year
'I read ø last year.'

(228) A: Skal du lese Hamsuns Sult i sommer?
shall you read Hamsun's Sult this summer
'Will you read Hamun's *Sult* this summer?'
B: ø leste jeg i fjor.
read I last year
'I read ø last year.'

All the examples sound odd if uttered out of context, but are perfectly acceptable if the null constituent is contextually given and activated as a referent. In some cases, discourse prominence overrules structural requirements, leading to structurally unexpected ellipsis types. Thus, the contextual information blurs the empirical pattern. But, this *is* the empirical picture–data *are* sometimes messy. Pretending that the empirical pattern is more clear-cut than it is would be detrimental to the analysis.

There are also examples displaying the opposite: ellipses where the unacceptability is not due to semantic restrictions, but only to structural factors. Some such examples will be discussed in the last part of this chapter.

Occasionally, the different restrictions may conflict, which can lead to the empirical patterns concealing the underlying restrictions. Because of the complexity of the licensing patterns, it is most likely not possible to establish a complete, predictive explanation for all data. The aim of this chapter is to propose possible explanations for selected patterns. Some empirical patterns will be explained by structural factors, while others require discourse related, pragmatic explanations.

To account adequately for the empirical variation, we need an analysis with the right balance of formal and contextual conditions and an understanding of how these components interact. Building an exhaustive analysis in narrow grammar is not possible.

6.4 Recoverability of deletion

Let us take a step back and ask a basic question: Why can we not elide everything? How come we need to utter anything at all? The answer is obvious: when communicating, we seek to convey information to another person. Since we cannot communicate through telepathy, we use instantiated lexical elements to get the message across. Yet, in ellipses, words and phrases that ought to be obligatorily represented in the linguistic signal are missing. This is possible because ellipsis is "parasitic on redundancy" (Merchant 2001: 1). It utilizes the fact that some information is superfluous in certain contexts.

Ellipsis is often explained by economy. Omitting linguistic elements that are not essential for conveying the meaning makes it possible to communicate with fewer words. This begs the question: for whom is it economical, the speaker or the hearer? There will always be competition between the speaker's 'least effort' principles and the requirement that the utterance must be interpretable for the recipient. Ellipsis is most economical from the speaker's point of view. If only the speaker's economy mattered, an optimal situation could be one word referring to all conceivable nuances of meaning. The perspective of the recipient is the opposite. It requires the linguistic expression to be richly specified, so that the intended meaning is easily accessible. For the recipient, the interpretation of an ellipsis requires more work since the meaning must be derived from an invisible or silent linguistic signal.

In ellipses, the speaker's and the hearer's economy are reconciled: ellipsis is only possible when the recipient can easily reconstruct the missing parts. Hence, ellipsis exploits the redundancies of the system, but not at the expense of usability and comprehensibility. This is incorporated into the principle of recoverability, which dictates that any elided semantic content must be recoverable, so that the overall meaning of the sentence remains stable. Recoverability relates to the interpretability of the sentence. Merchant (2001: 2) refers to this as a question of 'identity'[10]: silent elements cannot appear when we are not able to fix their meaning.

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10. There is also ellipsis characterized by structural identification, i.e., cases where the elided elements are recoverable by virtue of being identical to elements in the same period, but in these

> Identification refers to the recovery of the information that would have otherwise been expressed if the structures had been overt. (…) The problem of identification seems at first sight to be the more intractable one, since we come directly to the puzzle of generating meanings from silence.

In order for the recipient to understand the communicated utterance, the semantic content must be rendered sufficiently visible. The parts of the utterance not conveyed by other means cannot be elided. This insight displays clear parallels to Grice's Maxim of quantity (Sperber & Wilson 1995: 33):

> Maxims of quantity
> 1. Make your contribution as informative as is required (for the current purposes of the exchange).
> 2. Do not make your contribution more informative than is required.

One must utter a sufficient amount to get the right meaning across, but information that is already familiar is superfluous.[11]

6.4.1 The original principle

The principle of recoverability was first introduced as a restriction on syntactic deletion. At this stage of generative theory, four possible transformation types were assumed in the transition from deep structure to surface structure: movement, copying, insertion and deletion (Akmajian & Heny 1975: 230). For deletion, we must establish some restrictions; it cannot apply freely. One such restriction was the Katz-Postal Hypothesis (Katz and Postal 1964), stating that all transformations are meaning-preserving. If two surface structures have their origin in the same deep structure, and the only thing distinguishing them is that one has undergone an optional transformation, they must have the same meaning (Akmajian & Heny 1975). A transformation is not allowed to change the semantic content of a sentence.

If a deletion transformation is to preserve the meaning of a sentence, it must be possible to determine the deleted element from the deletion rule and the output

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cases, not in the same clause. Generally, such ellipses are found in a coordinated (gapping) or subordinated (sluicing) sentence. The elided part of the sentence is structurally as well as semantically identical to a part of the instantiated sentence. As discussed in Chapter 1, such structural ellipses (VP ellipses, sluicing, etc.) are beyond the focus of this study, so I will not discuss them any further. See Jackendoff (1971) for a discussion of gapping constructions.

11. Prosodically, even when present, familiar material is often unstressed, or shows reduced stress compared to new material.

tree. If it is not possible to reconstruct the meaning of the deleted element, there is a change of meaning, which would contradict the Katz-Postal Hypothesis. A motivation for the principle of recoverability is thus the observation that sentences with deleted elements are generally not ambiguous. A constituent is recoverable if it can be identified even if it has undergone deletion.

In this section, I will discuss some early formulations of the recoverability condition as they are relevant for licensing restrictions. The first definition of the principle is found in Chomsky (1964: 41), who claims an element can be deleted under the following conditions:

> In other words, a transformation can delete an element only if this element is the designated representation of a category, or if the structural condition that defines this transformation states that the deleted element is structurally identical to another element of the transformed string. A deleted element is, therefore, always recoverable.

Another frequently quoted definition is found in Chomsky (1965: 144–145):

> A deletion operation can eliminate only a dummy element, or a formative explicitly mentioned in the structure index (for example, *you* in imperatives), or the designated representative of a category (for example, the wh-question transformations that delete Noun Phrases are in fact limited to indefinite Pronouns – cf. Chomsky, 1964, 2.2), or an element that is otherwise represented in the sentence in a fixed position.

Thus, syntactic deletions are permitted in the following cases:

- if the deleted element is a dummy element,
- if the deleted element is explicitly mentioned in the structure index,
- if the deleted element is identical to the designated representation of a category, or
- if the deleted element is identical to another element in the string.[12]

12. The principle in Chomsky (1965) was formulated at an early stage of generative theory. The overall model was quite different from the one generally adopted nowadays. A couple of these cases require some clarification. Firstly, a 'dummy element' is a constituent that does not contribute any semantic meaning to the string. Consequently, deleting such an element does not alter the overall meaning of the string, which is precisely why it is easily deleted. Secondly, the *structure index* or *structural description* can be defined as the input to a transformation rule, which yields the final construction as its output (Bach 1964; Akmajian and Heny 1975).

Chomsky (1964: 40–41) defines the 'designated representation of a category' as follows:

> Each major category has associated with it a "designated element" as a member. This designated element may actually be realized (e.g. *it* for abstract Nouns, *some (one,thing)*), or it may be a dummy element. It is this designated representative of the category that must appear in the underlying strings for those transformations that do not preserve, in the transform, a specification of the actual terminal representative of the category in question.

A designated representation of a category is thus a fixed category specified in the system of rules, not only in the lexicon. Certain elements had a specific theoretical status by being mentioned directly in the transformation rule (Chomsky 1964, 1965).[13] They were assumed to be present regardless of whether they were lexicalized. Each category was assumed to have such a designated abstract member. A lexical element could be deleted if it *was* the designated representative of a category. The deleted constituent would then be recoverable since it had an abstract equivalent in the same structure.

If an element is mentioned in the rule applied to the construction, it can be deleted, or in our terms, it is not necessary to realize it phonetically. Yet, if the lexical element in question contributes semantic content that exceeds the content specified by the designated representation, this additional semantic meaning is not recoverable and the element cannot be deleted. This strict identity restriction is formulated in Chomsky (1965: 182):

> The general principle for erasure operations, then, is this: *a term X of the proper analysis can be used to erase a term Y of the proper analysis just in case the inherent part of the formative X is not distinct from the inherent part of the formative Y.*

The purpose of the principle of recoverability was to prevent the grammar machinery from freely deleting constituents. Then, one could end up with structures where bits of semantic content were lost. The ultimate consequence of this could be a structure where nothing was phonetically expressed, a syntactic structure without sound. This was of course undesirable since people cannot transfer linguistic structures to each other without utilizing signs.

6.4.2 Expanded use of the principle – recoverability in context

Originally, the principle of recoverability was understood as a sentence-internal condition. The deleted material had to be recoverable from the surface structure of

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13. At this stage of generative theory, the rules assumed were more construction specific than in later versions. For instance, a rule could specify a concrete word.

the same sentence. Later, the concept was expanded to sentence-external recoverability: elided elements can be recoverable from outside the sentence, either by an instantiated lexical item from another sentence or from the non-linguistic context. This expanded notion is found in recent theories on ellipses, here from Albrecht (2010: 10): "Recoverability on the one hand, means that the missing material has to be recoverable semantically from the context." This view is also expressed in McShane (2005: 16): "Referents for syntactically elided categories can be recovered from the linguistic context (…), the extralinguistic context (…), or one's world knowledge in conjunction with the semantics of the overt categories." McShane (2005) gives the following three different scenarios of recoverability:

(229) If you're going to **procrastinate**, I willø, too.

(230) (The speaker, eyeing two slabs of chocolate cake) Shall we ø?

(231) By midnight Joan **had finished** her term paper and Jason ø his math homework.

(229) and (231) illustrate recovery from the linguistic context, from the verb *procrastinate* and from the verbal complex *had finished*; (230) shows recovery from the extra-linguistic context, where the null element refers to consuming the chocolate cake.[14] For our purposes, the expansion of the notion of recoverability is welcome: in discourse ellipses, the antecedent for the elided constituent is not always found within the boundaries of the same sentence, but may only be present in the non-linguistic context:

(232) ~~Det~~ husker jeg var så gøy da jeg var liten. NoTa
~~that~~ remember I was so fun when I was little
'I remember being so much fun when I was little.'

(233) ~~Jeg~~ fikk jo litt næringsrik mat hjemme da. NoTa
~~I~~ got yes some nutritious food at home then
'I got some nutritious food at home, you know.'

(234) ~~En~~ skulle tro det. NoTa
~~one~~ should think that
'One should think so.'

(235) ~~Det~~ tror jeg også ja. NoTa
~~that~~ think I also yes
'I think so too.'

14. Relevant here is also Chao (1987), who proposes that ellipses need not always have syntactic antecedents; they may also have pragmatic or discourse antecedents (Lobeck 1995: 25).

Thus, if a silent constituent is not recoverable from either the linguistic or the non-linguistic context, the sentence cannot be interpreted. Roberge (1991) puts it this way: "Only recoverable deletions are permitted in grammar."

6.4.3 Strategies for identification

We know that elements recoverable from the linguistic or non-linguistic context are more easily omitted than elements referring to new information. Let us reverse the point: any intended, communicated proposition has a certain semantic content that needs to be identified. The term *identity* requires clarification. The literature on ellipses has extensively discussed whether the relation between the antecedent and the ellipsis site is characterized by strict identity, or whether a more sloppy interpretation of the term identity should be applied. Is the identity relation semantic (identity of meaning) or structural (identity of syntax/morphology/phonology), or both? Ellipses sometimes display cases of so-called sloppy identity, where the meaning of the elided item differs slightly from the meaning of the antecedent (see Fiengo & May 1994; Johnson 2001; and Merchant 2013 for a discussion of identity in ellipsis). This is in line with the discussion in Chapters 3 and 4, where I rejected an endoskeletal deletion approach in favour of an exoskeletal analysis assuming late lexical insertion into empty structural slots ¤. I propose that this identification process can be resolved in alternative ways, illustrated in (236)–(239):

a. direct linguistic identification
b. indirect linguistic identification – through an anaphor/verbal participle, etc.
c. sentence externally – by linguistic context, but outside the sentence limits
d. non-linguistic identification – recoverable only by context, no linguistic trace of the elided element[15]

(236) Jeg spiste meg mett på dessert.
I ate myself$_{\text{REFL}}$ full on dessert
'I was full from eating dessert.'

(237) a. ~~Du~~ må nesten bare kaste deg i det. NoTa
~~you~~ must almost only throw yourself$_{\text{REFL}}$ at it
'You just have to throw yourself in.'

b. ~~Jeg har~~ prøvd å øve meg litt ned Bogstadveien.
~~I have~~ tried to practice myself$_{\text{REFL}}$ a little down Bogstadveien
'I have tried to practice a little going down Bogstadveien.' NoTa

15. Note that types (c) and (d) are really the same, or at least closely related, kinds.

(238) a. A: Så jeg liker at maten smaker litt spesielt. ~~Jeg~~ er ikke så veldig glad i sånn vanlig norsk mat egentlig.
'So I like that the food tastes a little special. ~~I~~ am not really that fond of regular Norwegian food.'
B: Mmm.
A: ~~Det~~ syns jeg er litt kjedelig. NDC
~~That~~ think I is a little boring
'I think that is quite boring.'

b. A: stakkar ilderen hennes er ikke der mer da.
'Her poor ferret is no longer here.'
B: nei er n avliva?
'Oh no is it put to sleep?'
A: den daua
'It died.'
B: daua?
'Died?'
A: ja
'yes'
B: ~~Det~~ har ikke jeg fått med meg # seriøst er… NoTa
~~that~~ have not I got with me seriously er
'I did not pick that up. Seriously.'

(239) a. ~~Det~~ har jeg sett i katalogen. NoTa
~~that~~ have I seen in the catalogue
'That, I have seen in the catalogue.'

b. ~~Jeg har~~ feriert i Frankrike og snakker fransk. NoTa
~~I have~~ been on holiday in France and speak French
'I have spent my holiday in France, and I speak French.'

c. ~~Jeg~~ trener opp kondisen til fotballsesongen. NDC
~~I~~ train my condition for the football season
'I am exercising to improve my condition before the football season.'

The sentence in (236) is a standard non-elliptical case where each element in the communicated proposition is instantiated by a visible lexical item. I label this *direct linguistic identification*. There are no non-realized elements that need to be recovered. In (237a) and (237b), the subject is non-realized, but its features (person and number) are identified through the anaphors *deg* 'you' and *meg* 'me'. The identification happens through an instantiated lexical element, yet the subject is not directly identified. In (237b), the features of the omitted perfective auxiliary are indirectly identified through the form of the participle *prøvd* 'tried'. The fact that this is a perfect participle indicates that the silent auxiliary is perfective. The null object in (238a) has no sentence-internal antecedent through which the semantic

content is identifiable. Yet, in the preceding sentence, the referent is activated by the constituent *sånn vanlig norsk mat* 'such regular Norwegian food'. (238b) is parallel case: the null object points back to the statement that the ferret died. Hence, in both these cases, the elided items are identified through sentence-external antecedents. Similarly, in (239) the silent elements have neither a sentence-internal nor a sentence-external linguistic antecedent. To be acceptable, these examples require a specific context, where the elided element is somehow made discourse-prominent, for instance through direct pointing. They are less felicitous in random contexts. Importantly, these examples do require the elided elements to have a non-linguistic antecedent, yet there is no linguistic trace of the silent constituent.

I propose that identification can make an element discourse-prominent. A crucial point in my analysis is the assumption that elements from the context can substitute for the phonological realization of lexical elements in the syntax. Interestingly, Avrutin (2006) suggests that in the language of aphasics, as well as in certain unimpaired registers, elements from the context may take over the function of functional categories. He points to a distinction between tense and agreement: aphasics make more errors of tense than agreement. Whereas agreement is present in a clause only due to narrow syntactic requirements, tense is required to be anchored to the linguistic discourse, i.e., it is part of the context. From this he concludes that reliance on context is only possible in cases where the requirements of the information structure are at stake. Avrutin (2006: 54) argues that this is the reason why tense is more easily omitted than agreement: "[i]f the speaker has provided such a point [a temporal anchoring point] in the linguistic discourse, it will be part of the context. The encoding of the temporal information by morphosyntax thus becomes unnecessary." Tense is not missing, it is simply not explicated. A parallel scenario is seen in discourse ellipses. Elements may stay unrealized if their semantic content is recoverable.

In direct linguistic identification, the element is made prominent by being lexicalized. More interesting for our purposes are the example types in (b-d), in which the silent elements need to be identified in order for the recipient to be able to interpret them. Common to these examples is the insight that the more discourse-prominent an element is, the easier it is to elide it. Gestures–such as nodding, pointing, etc.–often increase the discourse prominence of elements. Pointing to something in the non-linguistic context may play the same role as lexically instantiating the element, and can thus be seen as an example of sentence-external recoverability, as in the following Norwegian examples:

(240) *pointing to a poster of a movie.*
Ø skal jeg jammen få med meg.
'Ø I will certainly go see.'

(241) *pointing to a poster for a concert.*
ø skal vi på.
'ø I am going to see.'

Pointing makes the silent element sufficiently discourse-prominent and overrules the structural requirement of having an instantiated element in this position.

Jouitteau (2004) discusses similar examples from Atlantic French, a language which generally requires an overt, phonologically realized subject to fulfil the subject requirement (EPP). She argues that this preverbal subject position can be filled by either a DP subject or a sound or a gesture. She proposes that movements of the upper body and ostensive facial expressions can function as preverbal phonological material to fulfil the subject requirement. The preverbal sound or gesture is analysed as an expletive satisfying the PF side of the EPP (Jouitteau 2004: 102).

(242) *Context:* *J'te prends en voiture à la gare si tu loupes ton train? Do you want me to fetch you with the car if you miss your train ?*
($DP_{subject}$/sound/gesture) prendra le train d'après et py c'est tout. will.take the train of after and then it is all
'I'll take the next train and that's all.'

(243) *Context:* entering *a room where children are playing…*
($DP_{subject}$/sound/gesture) feriez bien de ranger!
would.do good P clean up
'You (really!) should clean up!'

Instantiations of a preverbal sound can be either an intake of breath or a minimal vocal production. A preverbal gesture can be a facial expression or movement (nod, head dip, head shake, raising of eyebrows etc.) or a movement of other body parts (shrug, movement of the hand, head scratch, slap of the knee or of the hand, shake of the finger, snap of the fingers etc.). Importantly, according to Jouitteau (2004), gestures or sounds that are unintentional cannot fill this function. It must be an intentional act of the speaker.

Examples with pointing, as in (240) and (241), can include sentences with topic drop of both subjects and objects. Yet, topic-dropped subjects are often more easily recoverable without any direct pointing, in particular when the subject is 1st person, is co-referent with the speaker, probably because the speaker is inherently discourse-prominent through speaking.

Thus, context, in the form of general information or specific gestures, constitutes important background for the interpretation and processing of ellipses. Contextual information can contribute to disambiguating utterances which otherwise could have had several interpretations:[16]

16. Intonation patterns also provide important clues for reaching the correct interpretation.

(244) Skal du til helgen da? NoTa
shall you at weekend then
a. ~~Hva~~ skal du til helgen da?
'What are you doing this weekend, then?'
b. Skal du ø til helgen da?
'Are you doing ø this weekend, then?'

Depending on the non-elliptical underlying sentence, (244) may be interpreted as a *wh*-question, as in (a) or as a yes/no-question, as in (b). In (a), where the *wh*-element in [SPEC,CP] is null, the question is *what* you are doing that weekend; in (b), where the elided constituent is in a VP-internal complement position, the question is whether you are doing a specific activity. In other words, (244) is an acceptable utterance with two possible interpretations, but we need contextual and intonational hints to decide which interpretation is intended.

6.5 Shortcomings of the recoverability condition

Contextual prominence facilitates the possibility of a constituent remaining silent. This could lead one to believe that discourse ellipses are conditioned exclusively by communicative and pragmatic principles; if the semantic content of a proposition is sufficiently identified, this would rule out unacceptable ellipses and include the acceptable ones. However, recoverability conditions alone do not provide an exhaustive account for two reasons. Firstly, topicalized expletive subjects and copula verbs are both frequently dropped in spontaneous speech. Being semantically empty, or at least light, they can hardly be recoverable from context. Secondly, if recoverability can account for the well-formedness of discourse ellipses, why should the position of the elided element matter? From the data, we see that it does. In what follows, I will discuss these challenges and argue for more fine-tuned explanations.

6.5.1 Expletive subjects and copula verbs

To be semantically identified or recovered, a silent element needs to have semantic content. Otherwise, there is nothing to recover, no semantic meaning has gone missing. Yet, expletive subjects and copula verbs are frequently silent:

(245) ~~Var det~~ mye folk? NoTa
~~were there~~ much people
'Were there many people?'

(246) ~~Det er~~ litt dårlig tilbud til den aldersgruppen NoTa
~~it is~~ little poor service for that age-group-the
'There is quite poor service for that age group.'

(247) ~~Det var~~ veldig lett å samle alle det var bare å løpe ut og banke
it was very easy to gather everyone it was only to run out and knock
på naboene liksom m så #samlet man en gjeng NoTa
on neighbours like so gathered one a group
'It was very easy to gather everyone, it was just to run out and knock on the neighbours so one gathered a group.'

(248) ~~Det er~~ svært stor forskjell på klientellet #tror jeg altså NoTa
~~it is~~ very big difference on clientele think I so
'There is very big differences among the clientele I think.'

(249) ~~Det er~~ vanskelig å si NoTa
~~it is~~ difficult to say
'It is difficult to say.'

Firstly, copula verbs may be argued to have semantic content: they may have finite tense and, as I have argued, tense is a semantic category, the G-SEMANTIC content of the T-head. Moreover, the copula verb is a reflex of the combination of a subject and a property. It makes visible the predication relation, which is clearly semantic. Thus, we could claim that elided copula verbs are recoverable through predication and also through the unexpressed yet interpretable tense of the ellipsis.

Expletive subjects are purely formal constituents that make no semantic contribution to the sentence. Hence, one can hardly claim that they are implied by context. They are placeholders in the syntax, due to the structural requirement that the positions in question not be empty. The fact that these elements are often elided is a challenge to recoverability as an explanation for discourse ellipses. Cardinaletti (1990) argues that German expletive subjects (non-arguments and quasi-arguments) cannot be phonetically non-realized for this reason.[17] They are non-referential and hence not contextually recoverable (examples from Cardinaletti):

(250) **pro* wurde *t* viel getanzt.
was much danced
'There was much dancing.'

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17. Note that this empirical observation may not be correct. Expletive subject may be phonologically non-realized in German, as in the following example:

Heute Abend wurde viel getanzt.
Today night was much dancing.
Tonight there was a lot of dancing.

Thank you to an anonymous reviewer for pointing this out.

(251) * *pro* ist *t* ein Mann da.
is a man there
'There is a man there.'

(252) * *pro* regnet *t* gerade. / * *pro* hat *t* den genzen Tag geregnet.
rains now / has the whole day rained
'It is raining now. It has been raining all day.'

But this is not the case in spoken Norwegian and, according to Mörnsjö (2002), the Norwegian pattern holds for Swedish as well.[18]

How can the Norwegian data be accounted for? Intuitively, it is obvious that these items do not need to be recovered since they do not contribute to the semantic content of the sentence. Radford (1981: 266) provides this interpretation of the recoverability condition: "Only elements which do not have semantic content can be deleted." If we adopt his interpretation, the dropping of expletives and copula verbs is expected. These elements are easily elided precisely because they are semantically empty/light.

The theory of constructional syntactic frames can be useful in accounting for this. I outlined a syntactic model where a G-SEMANTIC syntactic structure is abstractly generated and into which lexical items are inserted late. I adopted Åfarli's (2007) proposal that Norwegian exhibits five constructional frames, which are constant and unalterable, and that all Norwegian sentences are instances of one of these frames.

Why is this important for ellipses of expletive subjects and copula verbs? The primary function of these elements is to be placeholders in the syntax. Generally, when a lexical item is inserted into the syntax, its lexical meaning interacts with the G-SEMANTIC meaning of the structure to yield an integrated semantic interpretation.

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18. Mörnsjö (2002) distinguishes between Swedish *det* as a quasi-argument, e.g. weather constructions, and *det* as a pure expletive subject, as in impersonal passives and existential clauses (Chomsky 1981a and 1981b; Rizzi 1986; Cardinaletti 1990; Vikner 1995 among others). This distinction corresponds to that between the subjects *it* and *there* in English; in Swedish, as in Norwegian, the lexeme *det* covers both. Mörnsjö (2002) concludes that both types of subjects are readily omitted in Swedish. The same holds for Norwegian.

(1) ø blåser friskt i dag. (Weather construction)
'~~It~~ is very windy today.'

(2) ø spises altfor mye karbohydrater nå til dags. (Impersonal passive)
'~~There~~ is eaten far too many carbohydrates nowadays.'

(3) ø kom masse folk på premieren. (Existential construction)
'~~There~~ came lots of people to the opening night.'

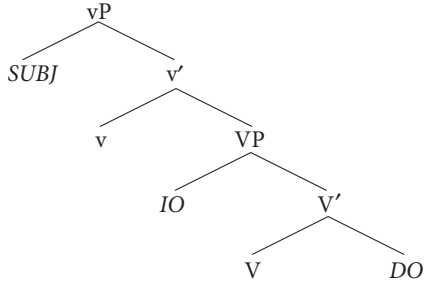
Since this distinction does not seem to be of relevance to my data, I will not incorporate it in my analysis. Hence, I will not distinguish between quasi-arguments and pure expletives, but instead use the term *expletive* for both.

Since expletive subjects and copula verbs do not make any semantic contribution, only the G-SEMANTIC meaning needs to be transferred. In these ellipses, this structural meaning will easily be conveyed. Expletive subjects and copula verbs do not need to be instantiated because the structure is recoverable anyway. I therefore propose an extension of the recoverability condition: if the syntactic structure is sufficiently recoverable and the full semantics of the elided elements is identified, ellipsis is possible.

From an exoskeletal perspective, conditions on ellipses are conditions on phonological realization rather than on deletion. The primary function of expletive subjects and copula verbs is to render the syntax visible. They can be dropped if it is sufficiently clear which structure underlies the ellipsis, i.e., if the elements that are realized identify the right underlying structure. The assumption that the syntactic frame is present independently of lexical insertion is what makes ellipsis possible; the frame carries G-SEMANTIC, structural content independently of the items inserted.

This argument resonates with early formulations of the principle of recoverability and the restrictions on syntactic deletion. Firstly, Chomsky (1965) stated that an element can be deleted if it is a dummy. Expletive subjects and copula verbs easily fit this characterization. Secondly, and more importantly, Chomsky (1964, 1965) argues that an element can be deleted if it is identical to the designated representation of a category. I propose that this is parallel to the argument that an expletive subject is recoverable from the structural frame. In the model outlined, structural frames are generated independently of lexical insertion. Each position in the lexical domain has a designated type of member, such as subject, object etc., as well as some unspecified features:

(253)



When an expletive subject is inserted into the subject position, it contributes no more than the semantics already present in the structural position. Similarly, a designated representation of a category can be understood as a unit contributing a minimal amount of information, hence parallel to the underlying structural position. The proposal that an element can be deleted because it is identical to the designated representation of the category can be translated into a statement that an element can only be deleted if it is identical to the structural position into which it was supposed to be inserted. It is then fully recoverable within the sentence

structure because the semantic content of the elements doesn't exceed the semantic content present in the syntactic structure. This is true of expletive subjects.

For other, more semantically loaded subject types, the meaning of the subject exceeds the content of the structural position, i.e. the content of the designated representation of the category. The meaning of the subject is thus no longer fully recoverable from the sentence structure since the subject contributes more meaning than what is found in the structural frame. Consequently, non-expletive subjects are not easily elided, unless they are semantically recoverable in the linguistic or non-linguistic context.

Thus, ellipsis of expletive subjects is possible since the structural frame already specifies their full content. A question immediately arises: why are expletives inserted in the first place if they contribute no meaning to the sentence? To this I propose two answers. Firstly, expletives appear to play a role in distinguishing between yes/no questions and declaratives: if the expletive occupies [SPEC,CP], as in (254a), the sentence must be declarative. If the expletive occupies [SPEC,TP], as in (254b), the sentence is a yes/no question and it is generally assumed that [SPEC,CP] stays empty in Norwegian (Åfarli & Eide 2003):

(254) Fint å bo i gården her. NoTa
nice to live in the building here

a. Er det fint å bo i gården her?
'Is it nice to live here in the building?'
b. Det er fint å bo i gården her.
'It is nice to live here in the building.'

Another, rather naïve, answer is that this is how language works. Sometimes it is not economical. Semantically empty elements, such as expletives and copula verbs, are part of the linguistic landscape in many languages as pure syntactic placeholders.

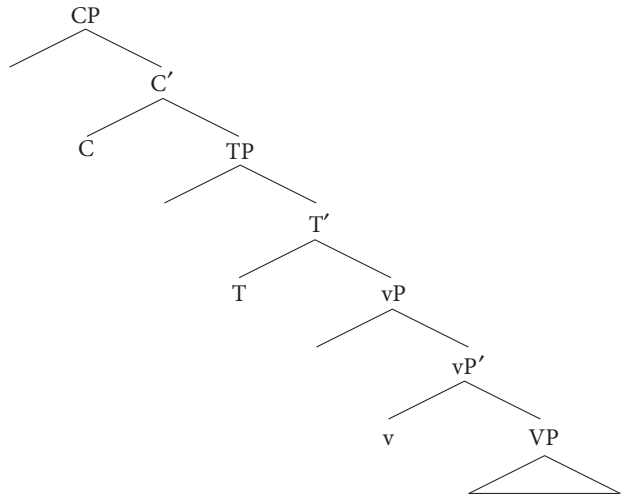
For purposes of illustration, I briefly outline the proposed analysis of a sentence with a null expletive subject:

(255) ~~Det~~ kommer lyder hele tiden. NoTa
~~there~~ comes noises all time-the
'There are noises constantly.'

Following the argument presented earlier, I assume that the first step is abstract merge of the G-SEMANTIC structure. Then, one of the five constructional frames is chosen, in this case the transitive frame since we need room for two argument positions:[19]

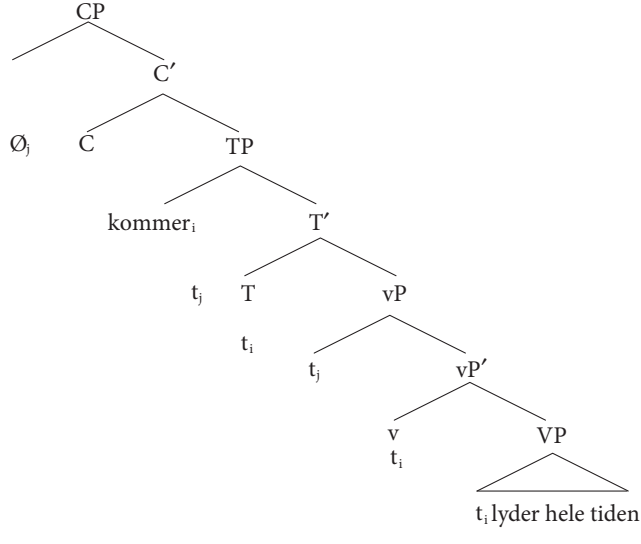
19. It is arguable whether the expletive subject should be characterized as an argument; it probably should not. Yet, it is unquestionable that the syntax must posit a structural position for this expletive subject, i.e. [SPEC,vP].

(256)



When the G-SEMANTIC frame is merged, lexical items are inserted into the relevant positions. Whether heads of chains are inserted low and then moved upwards or whether the whole chain is inserted at once, with traces or silent copies in relevant positions, is not of importance here. The figure in (257) shows the structure after lexical insertion and movement:

(257)



There is no realized subject, hence the uttered sentence is verb-initial. Following the proposed analysis, I argue that the expletive subject need not be instantiated since the underlying syntactic frame is sufficiently instantiated; furthermore, the expletive does not contribute any meaning that needs to be recovered. I have marked

the element ø, but this should be understood not as a null lexical element, but as a bundle of features. More specifically, unvalued feature matrices are merged in the main structure and are valued when the DP is inserted from the derivational work space. This is reminiscent of Chomsky's (1995) idea that features can move. In this case, the feature bundle that equals the expletive subject moves upwards to value the underspecified feature matrices in the relevant structural positions.

In order for this analysis to make sense, it is crucial to adopt an exoskeletal approach to syntax. In an endoskeletal, lexicalist model, the lexical items constitute the building blocks of the structure. In an exoskeletal model, however, the structure is built separately from lexical insertion, hence structure building does not hinge on these elements (Borer 2005a, b). Another consequence of moving from an endoskeletal to an exoskeletal model of grammar is that rather than explaining when and why something can be deleted, one must figure out which positions need or need not be instantiated, under which restrictions, and why. This is an important change of perspective. Rather than asking 'what can be deleted?', the question is: 'how little can you instantiate and still get the message across?'

The principle of recoverability was originally formulated as a condition on deletion. This clearly implies an endoskeletal analysis. I maintain the fundamental insight of this principle even while changing the perspective. In an exoskeletal approach, in ellipses the instantiation of certain positions is not necessary, and as a consequence, these positions remain silent. Hence, the term *deletion* must be replaced with *non-instantiation*. Also, rather than searching for restrictions on what can be deleted, I will seek to specify the restrictions for identification of the abstract syntax. As discussed in Chapter 3, this change of perspective leads to a more economical analysis of ellipses. Rather than inserting an element with its features fully specified and then deleting it in case of ellipsis, in an exoskeletal model the element is simply not inserted.

6.5.2 Structural licensing

A second shortcoming of the recoverability condition is that if discourse ellipses were restricted only by recoverability, elements in any position of the clause could be non-realized as long as they were semantically identified. Yet, this is not the case. The following ellipses are infelicitous even though the silent constituents are semantically recoverable:[20]

(258) #Jeg spiste ~~meg~~ mett på dessert.
I ate ~~myself~~ full on dessert

(259) #Skal du se den nye Harry Potter-filmen? Den ~~har~~ jeg allerede sett.
shall you see the new Harry Potter film that ~~have~~ Ialready seen

(260) a. #Den ~~leste jeg~~ i fjor.
that ~~read I~~ last year
b. #~~Jeg spiser~~ ribbe til jul.
~~I eat~~ pork rib for Christmas
c. #Han ~~trener~~ på Sats.
He ~~exercises~~ at Sats

---

20. It is possible to envision a context where the same sentences is not so unacceptable:

1. A: Du spiser jo alltid pinnekjøtt på nyttårsaften, men hva pleier du å spise til jul?
'You always have ribs of mutton on New Years Eve, but what do you usually have for Christmas?'
B: ~~Jeg spiser~~ ribbe til jul.
~~I eat~~ pork rib for Christmas

2. A: Hvilke treningsstudio er det dere går på, egentlig?
'Which fitness studios are you attending. Really?'
B: Han ~~trener~~ på Sats. Jeg ~~trener~~ på Elixia.
he ~~exercises~~ at Sats I ~~exercise~~ at Elixia.
' He exercises at Sats, I exercise at Elixia.'

This is an important point about discourse ellipses in general. As shown in several places throughout this book, it appears that a sufficiently prominent context can make otherwise infelicitous ellipses quite acceptable. Hence, I propose that we distinguish between normal contexts, in which elements are activated in the discourse, and contexts like the ones sketched in the examples, in which the discourse presence of the elements is extremely prominent. In the latter case, it is much easier to drop elements. This issue touches upon the issue of givenness, and more specifically the idea that there are degrees of givenness (Gundel 1974; Prince 1981; Lambrecht 1994).

Importantly, the fact that a prominent context can make many of the ellipses acceptable is predicted in my analysis. I argue that contextual enrichment is a last resort strategy that applies when an element is elided to recover the meaning of the constituent. Hence, we should expect that contextual information can 'save' elliptical examples which would otherwise not be interpretable. Yet, as we will see shortly, certain structural constraints cannot be violated regardless of the strength of the context.

We thus conclude that that even though recoverability of an elided item is imperative for ellipsis, it is not sufficient. The ellipsis must also be structurally acceptable. McShane (2005: 24) asserts that: "[t]he fact that speakers may be able to recover a category if it is elided does not mean that ellipsis of that category is grammatical." She illustrates her point with the following:

(261) a. *Mom accidentally let out the bird, but Dima caught.
b. Mom accidentally let out the bird, but Dima caught it.

If a non-native speaker of English utterred (261a), she would probably be understood. However, (261b) is more acceptable: (261a) is interpretable, but not structurally acceptable (McShane 2005).

If recoverability were the only relevant explanation for ellipses, one would expect the restrictions on possible ellipsis to be the same in all languages. However, as Merchant (2001: 2) points out, languages differ radically in "how they allow redundancies to be reduced by the grammar."[21] These differences are systematic, and they are both language- and structure-specific. He therefore concludes that ellipsis cannot be explained only by general principles of information redundancy; it also must be encoded in some way in the grammar.[22]

As mentioned earlier, the distinction between structural and semantic restrictions on ellipses is generally referred to as the distinction between *licensing* and *recoverability* or *identity* (Lobeck 1995; Merchant 2001; McShane 2005, among others):

> Licensing refers to local conditions on the omissibility of structures, while identification refers to the recovery of the information that would have otherwise been expressed if the structures had been overt. (Merchant 2001: 2)

This distinction was originally proposed by Rizzi (1986) for the treatment of *pro* subjects. Rizzi emphasized the need to separate formal licensing of null elements from the process of recovering the semantic content of the null element:

> The minimal contribution that is to be expected from a theory of a null element is that it should specify (a) the conditions that formally license the null element

21. As seen in Chapter 2, van Gelderen (2013) points out that even though Modern English patterns with Germanic on licensing of null subjects, null objects are impossible in English, unlike in other Germanic varieties. This shows that recoverability and discourse prominence alone are not sufficient to license ellipsis. Language-specific structural restrictions are also at play.

22. In Merchant's analysis of ellipsis, both types of restrictions, *licensing* and *identification*, are proposed to be integrated by an e-feature, which is given a local feature-matching requirement in addition to a semantics defining identification by what Merchant labels e-GIVENness. This linking of the two restrictions into one feature is the first proposal of this kind in the literature on ellipsis.

> (the conditions that allow it to occur in a given environment) and (b) the way in which the content of the null element (minimally, its φ-features) is determined, or "recovered", from the phonetically realized environment. (Rizzi 1986: 518)

McShane (2005) states that the most common strategies for licensing in ellipses are licensing by a particular type of lexical category and licensing by syntactic parallelism. Her empirical base, however, are so-called syntactic ellipses.[23] Therefore, the specific restrictions proposed by McShane (2005) and others are not relevant for my purposes. Nevertheless, the general insight that there are structural licensing conditions at play, in addition to conditions on semantic recoverability, must clearly be integrated also in the analysis of discourse ellipses.

The hunt for structural licensing mechanisms has been quite intense. The specific licensing restrictions for discourse ellipses in spontaneous speech will be addressed in the next chapter.

6.6 Processing discourse ellipses

The goal of this book is to explain why some discourse ellipses are felicitous and others are not. The processing of ellipses by the recipient is not given much attention. Yet, it is relevant in order to reach a more comprehensive understanding of ellipsis. How are silent elements processed and understood by listeners? In this section, I will briefly present some thoughts on how the exoskeletal model can be viewed from a processing perspective.

The investigation of ellipses processing is primarily concerned with structural ellipses such as VP-ellipsis and sluicing (see Sag 1976; Dalrymple et al. 1991; Hardt 1993, Fiengo & May 1994; Frazier & Clifton 1998; Kennedy 2003). Frazier & Clifton (2005) state that it is a challenge to specify how listeners can interpret elements not signalled by overt material.[24] One might imagine a speaker producing sentences where several words or constituents are elided, but the relevant issue is whether the ellipsis is understood and processed with ease.

I argued for a frame based analysis, where each sentence is an instance of one of the five frames suggested for Norwegian. How is this analysis compatible with

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23. Syntactic ellipsis is defined by McShane (2005: 15) as "the nonexpression of a syntactically obligatory category whose referent can be recovered by syntactic rules or discourse cues."

24. They point to a longstanding debate in the literature, about whether (i) ellipsis involves a purely semantic or discourse relation between the ellipsis site and antecedent but no syntactic structure in the ellipsis site; (ii) there must be syntactic structure in ellipses, along with a syntactically (LF-) identical material; or (iii) syntactic structure is required in the ellipsis site, but that ellipsis is licensed only by semantic identity.

processing issues? In general, language processing is understood as being incremental and piecemeal, and there is evidence that human processing is online: we segment utterances into words and assign them an interpretation as we hear them (Jurafsky & Martin 2000; Rayner & Clifton 2009). At first sight, this incremental processing may seem to be at odds with an exoskeletal analysis, according to which a syntactic frame is generated as a chunk of structure. Yet, we need to distinguish between the parsing of the structure and the semantically based understanding of the ellipsis. Understanding an ellipsis is a complex cognitive process with parsing as one of its parts (Phillips 1996: 274).

When a listener encounters a sentence, processing takes place linearly, from left to right, and parsing, i.e. the assignment of a structural description to the string, takes place simultaneously (Phillips 1996). Parsing is thus the assigning of a certain syntactic structure to an utterance, assigning word classes and syntactic functions to the words in the linear string. In the processing of an ellipsis, parsing takes place, but the linear string is missing certain words. One can say that parsing occurs on the basis of an incomplete source. Also, parsing includes assigning a syntactic function to silent elements, so to parse the sentence correctly, the listener needs to acknowledge the silent element as a syntactic constituent.

I suggest that in discourse ellipses, the listener employs information from intonation and word order and is able to parse the ellipsis as a declarative sentence, nor for instance a yes/no-question. The syntactic frames discussed in 3.3.3 also play a role. All frames are alike in the upper part of their structure. They vary in the lower part. From my perspective, a frame-based analysis where frames are stored as such, is more compatible with processing than a lexicalist Merge-based model, which is generated bottom-up, hence in the opposite direction of the processing.

Phillips (1996) notes that a distinction has often been made between the system for parsing and the system of grammar and argues that there is no need to distinguish between parsing and the representation of grammatical knowledge: "[p]arsing is more of an active process of construction than a passive process of analysis" (278). Yet, when parsing, the listener must render the grammatical derivation in reverse to derive an appropriate underlying structure. This view is compatible with my argument that structure must also be recoverable. When processing an utterance, parsing cannot be avoided; the process of parsing is just like the process of generating a sentence in the grammar, only in reverse. I propose that employing a restricted number of frames in a language makes a parsing account easier. Parsing is understood as recovery of the correct syntactic structure. In addition, there are also concerns of acceptability, i.e. whether the ellipsis is comprehensible. [25] These issues are not regulated by syntax, but rather by situational semantic concerns.

25. See Phillips (1996: 273–4) for a discussion of sentences that are more or less parsable and understandable, and why these terms must not be confounded.

CHAPTER 7

Structural licensing conditions

We have established that recoverability alone cannot explain the empirical patterns of Norwegian discourse ellipses. There are two challenges: dropping of expletive subjects and copula verbs and the unacceptability of ellipsis from certain positions, regardless of whether the content is recoverable. This line of thought is continued here: I discuss two striking empirical observations requiring an explanation that goes beyond recoverability. In 7.1, I discuss the fact that ellipses involving the C-domain are particularly frequent. Why is it the case that elements are most easily elided from the sentence initial position? What makes the C-domain so vulnerable to ellipsis? Then, in 7.2, I investigate a robust structural pattern where ellipsis is not well-formed even if recoverability conditions are met. These cases appear to require a structural explanation, which is what I propose.

7.1 The vulnerability of the C-domain

7.1.1 The C-domain as an interface to discourse

In Norwegian discourse ellipses, omissions are by far most frequent in the left periphery of the clause. Most typical are non-instantiated positions in the C-domain: cases of empty [SPEC,CP] (topic drop), as in (262)–(263), or sentences where the whole C-complex is silent, as in (264)–(265):

(262) ~~Du~~ skal liksom være glad i familien din. NoTa
~~you~~ shall like be fond of family-the yours
'You are like supposed to love your family.'

(263) ~~Det~~ kan jeg ikke erindre. NoTa
~~that~~ can I not recall
'That, I cannot recall.'

(264) ~~Jeg~~ ~~har~~ lyst til å reise til em# Italia. NoTa
~~I~~ ~~have~~ desire to travel to (…) Italy
'I want to go to Italy.'

(265) ~~Det~~ ~~har~~ blitt større sentrum og stadig # bygget ut
~~It~~ ~~has~~ become bigger centre and constantly (…) expanded here
her så. NDC
so
'The centre has grown and there is constant building here so.'

If it is easier to recover elements in some positions, this requires an explanation. The theory of constructional frames requires that the underlying structure be sufficiently instantiated. Then, ellipsis from certain positions should not be more easily licensed as long as the meaning of the elided elements is recoverable. How can we then explain why the left periphery is particularly vulnerable to ellipsis? To do so, let's take a closer look at the C-domain.

Chomsky (2002: 113–134) suggests that C is a force indicator and that the left periphery also includes positions for at least topic and focus. He postulates that the semantics of expressions are of two main kinds, those tied to thematic relations and those tied to discourse relations. The semantics found in the C-domain is the latter:

> There's the kind that have to do with what are often called Thematic Relations, such as Patient, Experiencer, etc.; and there's the kind that look discourse related, such as new/old information, specificity, Topic, things like that.
>
> (Chomsky 2002: 113–114)

Hence, the C-domain is discourse-related, an interface between syntactic structure and context. Adger (2003: 329) points out two movement operations that target the C-domain: verb movement to C (V2) and syntactic topicalization, i.e. movement to [SPEC,CP]. In both, the basic, theta-related meaning of the sentence stays unaltered:

(266) Jeg spiste middag tidligere i dag.
I ate dinner earlier today.

(267) Middag spiste jeg tidligere i dag.
dinner ate I earlier today

(268) Tidligere i dag spiste jeg middag.
earlier today ate I dinner

There is a difference in meaning in these sentences, but it is related to the presentation or structuring of information rather than to argument structure and theta relations. From this we can conclude that processes of movement into the C-domain in declarative main clauses mainly concern pragmatic information structuring, not theta-related semantic information.

The C-domain is also related to finiteness. The dual function of the C-domain is captured in Rizzi's (1997) proposal that the CP should be split into at least two functional projections, ForceP and FinP. ForceP points outwards to the discourse

or to a higher clause and is responsible for clause typing and linking the sentence to discourse. FinP faces inwards to the I-domain, relating to tense. Rizzi (1997) concludes that the complementizer system is an interface between the propositional content expressed by IP and the superordinate structure expressed either in a higher clause or in the discourse. The C-domain optionally includes two other projections: TopP (topic) and FocP (focus). Whereas the force-finiteness system expresses selectional relations between the C-system and the immediately higher and lower structural projections, the topic-focus system is not dependent on selectional constraints, but has other functions.[1]

Rizzi's (1997) split-CP analysis was motivated by the fact that more than one constituent can be fronted; the various fronted constituents display a hierarchical ordering. The first point is less relevant to a V2 language like Norwegian, where only one constituent is allowed before the finite verb. The second point, the splitting of the CP clearly shows and disentangles the semantic properties of the domain. This is obviously relevant for my purposes. Yet, assuming four structural positions is not necessary for explaining my empirical data; I will thus assume only one projection in the C-domain, which is assumed to function as an interface between the sentence-internal proposition and the discourse context. The question of whether there are actually several projections is left open.

This non-split CP-analysis implies that all constituents that move into the left periphery target the same specifier position, [SPEC,CP]. Fronted topic and focus phrases compete for the same position. Only one constituent can occur before the finite verb in C, a desirable consequence for a V2 language like Norwegian. Under a split-CP analysis, additional syntactic operations would have to be postulated to account for V2 (see e.g. Westergaard & Vangsnes 2005).

The discourse relevance of the C-domain is also manifest in the analysis of null arguments found in Sigurðsson and Maling (2010) and Sigurðsson (2011), implemented in a model where the C-domain contains silent but syntactically active context-linkers (CLn), such as Top(ic) features, as well as logophoric 'speaker' and 'hearer' features, ΛA and ΛP (Sigurðsson 2011). The function of these features is stated in the Context-Linking Generalization (Sigurðsson & Maling 2010: 61), which formalizes the insight from Rizzi (1997) that the C-domain is twofold, pointing upwards and downwards:

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1. When the topic-focus field is activated, it will be merged between force and finiteness. ForceP and FinP must encapsulate the C system to meet the different selectional requirements (downwards) and to properly insert the C system in the structure (upwards). Then, according to Rizzi (1997), the structure of the C-domain is:

… Force … (Topic) … (Focus) … FinIP

The context-linking generalization

A. Context-linking features of the C-domain include at least Λ_A, Λ_P and Top
B. Any referential pronoun, overt or silent, positively matches a context-linking C-feature

Sigurðsson (2011) further proposes that context-linking is a transitive matching relation where the context-linking features in CP enter into two-directional matching relations, one with clause-internal elements and one with clause-external topics and/or participants of the speech event. The insight that pronouns–overt or silent–need to match linguistic and/or deictic context is not new, but Sigurðsson's (2011) context linking generalization formalizes this insight as well as the assumption that this matching happens via the C-domain of the clause. Hence, context-linking is located in the syntactic structure, rather than being purely pragmatic or extra-syntactic, as is often assumed (e.g. Huang 2007).

The goal of this section is to establish the C-domain as an interface between sentence-internal processes and the discourse context. Considering that the elided elements tend to be given and activated in the context, it is not surprising that this domain is the most vulnerable to discourse ellipsis. Yet, the picture is more complex. We saw that certain elements, such as expletives and copula verbs, cannot be characterized as discourse-active or recoverable yet are frequently dropped. Also, it is not the case that any element in the C-domain can be elided in any context. There appear to be more fine-grained pragmatic and structural restrictions governing these processes. I turn to the pragmatic ones first.

7.1.2 Preposed elements in [SPEC,CP]: topic and focus

Information on the sentence level may be divided into two parts: information provided in the preceding discourse or the context (*topic, theme, point of departure, given information*, *presupposition, background*) and new information (*comment, rheme, focus*). Constituents belonging to the first group are more vulnerable to being elided since they are semantically or pragmatically recoverable. The definitions of these concepts are not unitary in the literature, but since the precise definition of the terms and the distinctions between them are not relevant for the analysis proposed here, I will not discuss them in depth.

In this section, I discuss the specifier position of C, [SPEC,CP]. It is non-instantiated in topic drop constructions, or more generally in declarative V1 constructions in typical V2 languages. I propose that the constituents found in [SPEC,CP] in declarative main clauses can be of two types: elements that represent given, activated information and elements that introduce new information. The former is activated in the discourse by being familiar and given and the latter

is made discourse-prominent at the moment of utterance by being fronted into the left periphery.

Given information in [SPEC,CP]

(269) A: Liker du fotball?
'Do you like football?'
B: Fotball liker jeg godt.
football like I very much
'Football, I like a lot.'

New information in [SPEC,CP]

(270) A: Skal du gjøre noe spesielt i helga?
'Are you doing anything in particular this weekend?'
B: Fest på lørdag kunne jeg godt tenkt meg.
party on Saturday could I well think me
'A party on Saturday, I would very much like.'

In generative literature, given and new information are respectively *topic* and *focus*. According to Rizzi (1997) and Radford (2004), topics and focussed elements constitute the two main preposed constituents in declarative main clauses. The remaining parts of the sentence are characterized as *comment* and *presupposition*. Following this, I propose that [SPEC,CP] in a declarative clause can be filled either by a topic, as in (269), or by a focussed element, as in (270).[2] For Rizzi (1997), a topic is a preposed element set off from the rest of the clause by "comma intonation." It usually expresses old information and is available and salient in previous discourse. The comment is predicated of the topic and introduces new information:[3]

(271) Your book (topic), you should give T to Paul (not to Bill) (comment).

The focus-presupposition distinction is structurally similar but interpretively different. The focussed element introduces new information and the predicated presupposition expresses information that is given and taken to be familiar to both speaker and hearer:

(272) YOUR BOOK (focus) you should give T to Paul (not mine) (presupposition).

For Lambrecht (1994), the focus of the proposition is the element of information that cannot be taken for granted at the time of speech. He points to Halliday's (1967: 204) definition:

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2. It is not relevant for my purposes to assume a split CP. Rather than assuming that topic and focus target different projections in the C-domain, these elements will compete for the position [SPEC,CP]. Hence, [SPEC,CP] can host one or the other, not both.

3. The examples are from Rizzi (1997).

> What is focal is "new" information; not in the sense that it cannot have been previously mentioned, although it is often the case that it has not been, but in the sense that the speaker presents it as not being recoverable from the preceding discourse.

In her seminal paper on sentence topics, Reinhart (1981) emphasizes that, unlike other relational terms such as subjects, topics cannot be syntactically defined. Importantly, she rejects the widespread view[4] that information status is the only relevant factor for defining topichood. The topic cannot be seen as equivalent to 'old information' since not all referring expressions that represent given information can simultaneously be sentence-topics. The sentence can only be about one topic. Reinhart builds her analysis on Strawson's (1964) definition of topichood as *pragmatic aboutness*.[5] Strawson proposes two main principles and argues that both must be fulfilled if a constituent is to be characterized as a topic:[6]

- **principle of the presumption of knowledge:** a sentence is not an independent, self-sufficient unit, but is always related to earlier discourse. More specifically, it is about something that is already in our presumed knowledge.
- **principle of relevance:** what is of importance is not only what can be assumed to be already known, but rather the purpose of the utterance. What is the utterance about?

Topichood is relevant for defining licensing restrictions on discourse ellipses. It is also highly relevant that topics generally express given information since given information appears to be easily elided. When the term *topic* is used here, the following characteristics are adopted, along the lines of Strawson's criteria (see also Lambrecht 1994 for a similar definition):

- The topic is what the rest of the sentence is *about*.
- The topic represents *given or old information*.[7]

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4. Examples of such theories are Gundel (1974), Chafe (1976), Clark & Clark (1977) and Clark & Haviland (1977).

5. See also Erteschik-Shir (2007) for an overview of the distinction between topic and focus and the connections between information structure and syntax in general.

6. The insight that topics typically express old information is upheld in Strawson's (1964) theory. The main point for Reinhart (1981) is that givenness cannot constitute an exhaustive definition of topichood.

7. McShane (2005) adds that topics are often defined as the elements the remaining discourse is about. Also Reinhart (1981) contrasts *sentence topic* with *discourse topic*, arguing that discourse topics are larger units and can be more abstract, whereas sentence topics must correspond to an expression in the sentence. The notion of a discourse topic is irrelevant for our purposes here.

In syntactic theory, topicalization is most often understood as the movement of a constituent into [SPEC,CP]. Contrary to the pragmatic definition of a sentence topic (Reinhart 1981), this is a purely syntactic understanding, implying that in declarative clauses, all elements moving to [SPEC,CP], are topics. For our purposes, it is crucial to keep these two kinds of topichood separate. We have established that [SPEC,CP] can be filled by either a topic or a focussed constituent. In other words, we need to distinguish between sentence topics, defined in pragmatic terms, and syntactic topics understood as the elements filling [SPEC,CP] in main declarative clauses.[8]

Syntactic topic is often, but not always, equivalent to sentence topic. Reinhart (1981) argues that sentence topics may not necessarily be situated in [SPEC,CP]. This does entail that the element occupying [SPEC,CP] in a declarative main clause is not a topic, as stated in Rizzi (1997). Reinhart gives the following example:

(273) Max saw Rosa yesterday.
  a. Max_{TOP} saw Rosa_{FOC} yesterday.
  b. Max_{FOC} saw Rosa_{TOP} yesterday.

This sentence could be uttered as the answer to different questions. Which question the utterance is a response to determines which constituent is the topic. If (273) is the answer to "Who did Max see yesterday?," Max is the topic. If is the answer to "Has anybody seen Rosa yesterday?," then Rosa is the topic. Obviously, the intonation would also be different in the two cases. Note that the same applies to the parallel Norwegian sentence:

(274) A: Hvem var det Max så i går?
  'Who was it that Max saw yesterday?'
  B: Max_{TOP} så Rosa_{FOC} i går.
  Max_{TOP} saw Rosa_{FOC} yesterday

(275) A: Var det noen som så Rosa i går?
  'Did anybody see Rosa yesterday?'
  B: Max_{FOC} så Rosa_{TOP} i går.
  Max_{FOC} saw Rosa_{TOP} yesterday

This pattern is highly relevant for defining licensing restrictions on discourse ellipses. The relevant insight concerning main declarative clauses can be summed up in two main points:

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8. When I use the term *topicalized* in this book, I refer to syntactic topichood, i.e. fronting of constituents to [SPEC,CP].

I. [SPEC,CP] can contain elements other than topics. A focussed element can also occupy [SPEC,CP].
II. Topics need not be in [SPEC,CP].

Thus, discourse ellipses are only licit when the element occupying [SPEC,CP] is a topic, not a focus. An empty [SPEC,CP] is only possible when Max is interpreted as a topic, i.e., as an answer to the question in (274). Under the interpretation that Max is a focussed constituent, i.e., as a response to the question in (275), an empty [SPEC,CP] is unacceptable:

Topic interpretation:

(276) A: Hvem var det Max så i går?
'Who was it Max saw yesterday?'
B: ~~Max~~$_{TOP}$ så Rosa i går.
~~Max~~$_{TOP}$ saw Rosa yesterday

Focus interpretation:

(277) A: Var det noen som så Rosa i går?
'Did anybody see Rosa yesterday?'
B: *~~Max~~$_{FOC}$ så Rosa i går.
*~~Max~~$_{FOC}$ saw Rosa yesterday

Generally, fronted elements of the category focus cannot be dropped. This is illustrated by topic-comment structures where the fronted element is easily omitted contrasted with focus-presupposition structures, where the fronted element cannot be silent:

Topic-comment structures:

(278) A: Hva skal jeg gjøre med denne gamle stolen?
'What am I to do with this old chair?'
B: ~~Den~~ kan du sende på loppis.
~~that~~ can you send to the flea market
'That old chair/that one, you can send to the flea market.'

(279) A: Jeg vurderer å kjøpe en Ford Focus. Vet du noe om den?
'I am considering buying a Ford Focus. Do you know anything about it?'
B: ~~Den~~ har jeg elendige erfaringer med.
~~it~~ have I very bad experience with
'I have very bad experiences with it.'
B: ~~Den~~ har vel ikke noe særlig stor motor.
~~it~~ has well not any large motor
'It doesn't have a very large motor.'

Focus-presupposition structures:

(280) A: Alt dette skrotet, hva skal jeg gjøre med det?
'All this trash, what am I to do with it?'
B: *~~Den gamle stolen~~ kan du sende på loppis.
~~that old chair/that~~ can you send to the flea market
'That old chair/that one, you can send to the flea market.'

(281) A: Jeg skal kjøpe ny bil, kanskje en Ford.
'I am buying a new car, maybe a Ford.'
B: *~~Ford Focus~~ burde du i hvert fall ikke kjøpe.
~~Ford Focus~~ should you at least not buy
'You should at least not buy a Ford Focus.'

Thus, a purely structural explanation of discourse ellipsis is not sufficient. The licensing restrictions are not only structural, but also discourse-related. It does not suffice to conclude that elements can be elided from [SPEC,CP]. The information-structural status of the element is critical, as only semantically recoverable elements can be silent.

Topics of different syntactic categories (subjects, objects, complements of prepositions) can be elided from [SPEC,CP]:[9]

(282) ~~Du~~ kan sende den gamle stolen på loppis. *Omitted subject*
'You can send that old chair to the flea market.'

(283) ~~Den gamle stolen~~ kan du sende på loppis.
~~that old chair~~ can you send to the flea market
Omitted direct object

(284) A: Skal du bli med på statistikkurset i neste uke?
'Are you participating in the statistics course next week?
B: ~~Det kurset~~ har jeg allerede vært med på.
~~that course~~ have I already participated in
Omitted complement of preposition

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9. The most frequent type of omitted object from [SPEC,CP] is *det* 'that' referring to a previously uttered sentence:

1. Du skal ha fri på lørdagen, du. ~~Det~~ skal ikke jeg.
you shall have free on Saturday you ~~that~~ shall not I
'You're having the day off work on Saturday, aren't you? I am not.'

Examples of dropped referential objects are less frequent in the corpus, but they are attested in other contexts and are judged to be acceptable by my informants.

Note that omission of indirect objects is rare. Mörnsjö (2002: 76) explains this with the fact that indirect objects are less likely to be topics.

If we use topichood to explain discourse ellipsis, we run into a challenge with expletive subjects. We concluded earlier that expletive subjects cannot be recoverable from context since they do not contribute semantically. For the same reason, they cannot be topics. Saying that the sentence is *about* an expletive subject seems odd; also expletive subjects cannot represent old information. Nevertheless, sentence-initial expletive subjects are among the constituents most frequently dropped. How can this be explained? I argue that discourse ellipsis of expletive subjects fits within the same analysis as the rest of the data. Precisely because expletive subjects are semantically empty, their content needs to be recovered. The semantic meaning of the sentence is intact despite the omission of the expletive subject, hence the recoverability condition is fulfilled. Furthermore, the syntactic structure, i.e., the underlying constructional frame of the sentence, is equally subject to recoverability, implying that through the instantiated elements, it must be possible to infer which constructional frame the sentence is an instance of. More specifically, there is no variation when it comes to the subject position in the different syntactic frames, as shown in 3.3.3.[10] It is present and identical in all the five frames. Hence, the structural subject position is easily recoverable and in the case of expletive subjects the semantic content does not need to be recovered.

The examples so far have been of omitted topicalized referential arguments, the most frequent types of discourse ellipses. Occasionally, the silent element in [SPEC,CP] can also be a light adverbial. The Swedish examples in (285)–(286) are from Mörnsjö (2002) and (287)–(289) illustrate this phenomenon in Norwegian:

(285) ø Får man be konsulatet om hjälp.
ø may one ask consulate-the about help
'Then you have to ask the consulate for help.'

(286) ø Sitter han där och säger då att det här är ju
ø sits he there and says then that DEM is yes not
inte mäningen för att kolla er eller nånting, då.
intention-the for to control you or something then
'Then he sits there and says that the point isn't to check up on you or anything.'

(287) ø Fløy vi rundt og tok bilder da så kom det en vakt… NoTa
'ø we flew around and took photos then a guard came.'

(288) ø Syns jeg man bare skulle lese halve boken … NoTa
'ø I think one should only read half the book.'

10. Recall that the syntactic frames only consider the structure from PrP and below. The TP and CP layers are assumed to be the same for all sentences. Thus, topicalization does not influence on frame structures.

(289) ø Sitter jeg hjemme og venter på at han skal komme hjem så bare "ja nei # hva gjorde du på den lørdagen?" NoTa
'ø I sit at home and wait for him to come home, and then "yes no (…) what did you do that Saturday?"'

According to Mörnsjö (2002), these silent adverbs are challenging for topic-drop analysis: they do not represent given information and the sentences are not *about* them. However, one could easily argue that in (285)–(289), the elided elements are given in the context and also that this temporal or locative adverb is what the remaining sentence is about. Hence, in some sense, the sentences are *about* the adverbs, or at least they are about the temporal or locative situation referred to by the adverbs.

Mörnsjö (2002) also notes that it is debatable whether non-argument adverbials can be topics. Kiss (1994) accepts only referential arguments as topics, whereas Chafe (1976) states that "real topics" (in topic-prominent languages) should be defined as constituting a frame for the predication. Following Chafe (1976) and Molnàr (1991), Mörnsjö (2002) adopts a view that includes both aboutness topics and frame topics. She argues that phonetically non-realized connective adverbs are frame topics, indicating the frame within which the predication holds: "[w]hen placed sentence-initially, these adverbs denote a specific relation, more specifically a temporal or logical relation that the sentence establishes to the preceding discourse" (Mörnsjö 2002: 20).

My definition of topichood includes topics as frames as well as conveyors of aboutness. This extension of the term covers silent connective adverbs and silent referential expressions.

7.1.3 Non-sentence initial discourse ellipses

We concluded that [SPEC,CP] can contain elements other than topics and that topics can be located outside [SPEC,CP]. The assumption that sentence topics need not be located in [SPEC,CP] as in Reinhart (1981), immediately triggers the question: Is it possible for a sentence topic outside of [SPEC,CP] to undergo discourse ellipsis? I will argue that it is.

Even though the C-domain, and in particular [SPEC,CP], is vulnerable to discourse ellipsis, topical elements are occasionally omitted sentence-medially. It appears that when referential elements are elided from within the clause, they are characterized by topichood:

(290) (Pointing to a valuable book and handing it to a child):
Færra fint med ø, da!
deal nice with ø then
'Treat it well, then!'

(291) A: Har du fått tak i billetter til juleforestillinga?
'Did you get tickets to the Christmas show?'
B: Ja, jeg kjøpte ø i går.
'Yes, I bought ø yesterday.'

In (290), the complement of *med* 'with' is left out, which is possible precisely because the elided constituent is a topic. It represents given information and it is what the sentence is about. The same is true of (291): the elided object is a topic.

Let's reconsider (273), repeated below as (292)–(294). If Max is interpreted as focus and Rosa is a topic/presupposition, omitting the topic Rosa would be quite acceptable.[11] Yet, if Rosa is a focussed element, the ellipsis is unacceptable:

(292) Max saw Rosa today.

(293) A: Var det noen som så Rosa i går?
'Did anybody see Rosa yesterday?'
B: Max_{FOC} så $\text{~~Rosa~~}_{\text{TOP}}$ i går.
Max_{FOC} saw $\text{~~Rosa~~}_{\text{TOP}}$ yesterday

(294) A: Hvem var det Max så i går?
'Who was it Max saw yesterday?'
B: *Max_{TOP} så $\text{~~Rosa~~}_{\text{FOC}}$ i går.
Max_{TOP} saw $\text{~~Rosa~~}_{\text{FOC}}$ yesterday

Even though leaving out the topic from a sentence-medial position is acceptable in the right context, this is not as frequent as sentence-initial topic omission, which requires that the topic be highly prominent. Note the striking difference in acceptability between an omitted sentence-medial focussed element and an omitted sentence-medial topic. The former is completely ruled out, whereas the latter is acceptable in the right context.

Thus, discourse-related restrictions are important and the degree of givenness or discourse prominence influences the possibility of ellipsis. The C-domain is particularly exposed, but ellipsis can also occur elsewhere if the context is sufficiently rich, i.e. a context where the topic is made highly prominent. Given information is most easily elided in [SPEC,CP], but can occasionally also be elided in other positions. Non-given information, on the other hand, such as focussed constituents, can never be elided. Hence, discourse-related restrictions clearly overrule the structural constraints tied to the C-domain.

11. This ellipsis requires strong contextual presence to be acceptable.

7.1.4 Person restrictions on topic drop

If the context leaves all options of person open, the most salient reading of null subjects in discourse ellipses is 1st person, more specifically 1st person singular. This is what we find in diary drop (Haegeman 1990; Haegeman & Ihsane 2001). Given the right context, null subjects can easily be interpreted as 1st, 2nd or 3rd person, singular or plural. Null objects, on the other hand, appear to be governed by stronger restrictions when it comes to person. Apparently, 3rd person objects are more easily omitted than 1st or 2nd person ones. In her corpus study of Swedish, Mörnsjö (2002) found no topic drop of 1st and 2nd person objects. German does not allow object topic drop when the object is a 1st or 2nd person pronoun; 3rd person object topic drop is fine, however (Cardinaletti 1990: 79; Erteschik-Shir 2007). Cardinaletti gives the following infelicitous example of a silent 1st person object:

(295) A: Habe ich dich gestört?
Have I you disturbed
'Did I disturb you?'
B: *~~Mich~~ hast du sehr gestört.
~~Me~~ have you much disturbed
'You disturbed me a lot.'

This restriction is unexpected on the basis of recoverability since both the speaker and hearer are easily identifiable in the discourse. Cardinaletti (1990) points to the *pro* vs. operator distinction, claiming that in cases of object topic drop, an operator occupies [SPEC,CP]; these operators, unlike *pro*-subjects, are inherently 3rd person, which automatically rules out 1st and 2nd person null objects.

Mörnsjö (2002) rejects this explanation for Swedish and instead argues for a pragmatic explanation. She points to general differences with respect to the type of element placed in [SPEC,CP] and shows that there is a correlation between choice of person for overt and covert objects. The construction with a topicalized 1st or 2nd person object is pragmatically inappropriate regardless of whether the object in [SPEC,CP] is phonetically realized or not. Hence, the following examples (from Mörnsjö 2002), with a pronounced and a silent topicalized object, respectively, are equally odd:

(296) Störde jag dig?
Disturbed I you
'Did I disturb you?'
a. # Mig störde du faktiskt.
me disturbed you actually
'Actually, you did disturb me.'

b. # ~~Mig~~ störde du faktiskt.
~~me~~ disturbed you actually
'Actually, you did disturb me.'

This sentence would be acceptable if the object *mig* were assigned stress, but then it could no longer be silent. So, the construction with a fronted 1st person object is only acceptable if the fronted constituent is a focussed constituent, and as we saw earlier, a focussed constituent in [SPEC,CP] cannot be silent.

Mörnsjö (2002) proposes that object topic drop in Swedish is easier in the 3rd person and explains that this is pragmatically, rather than grammatically, motivated. A speaker will generally choose a less marked construction over a more marked one. An example of an unmarked structure would be a subject-initial clause or a sentence with a null 3rd person object. In most constructions with a null 3rd person object, the object points back to a whole verb construction or proposition rather than a single referent. Propositions are evidently 3rd person. A sentence with a null 1st or 2nd person object would be more marked. Hence, the speaker's choice is not primarily between a silent and an overt 1st or 2nd person object in [SPEC,CP], but rather between marked and unmarked structures. She gives the following examples, where (297) (null 2nd person object) is marked; and (298) null 3rd person object, (299) null 3rd person propositional object and (300) null 1st person subject, are unmarked and more easily chosen by the speaker:

(297) A: Ni kommer aldrig att få tag på mig!
you come never to get grip on me
B_1: Jodå, ø hittar vi alldeles säkert med hjälp av polisen,
oh ø find we completely surely with help from police-the
oroa dig inte!
worry you not
'You'll never catch me! Oh, we'll find you surely with a little help from the police, don't you worry!'

(298) A: Ni kommer aldrig att få tag på tjuven!
you come never to get grip on thief-the
B_2: Jodå, ø hittar vi alldeles säkert med hjälp av polisen,
oh ø find we completely surely with help from police-the
oroa dig inte!
worry you not!
'You'll never catch the thief! Oh, we'll find him surely with a little help from the police, don't you worry!'

(299) A: Ni kommer aldrig att få tag på mig!
you come never to get grip on me

B_3: Jodå, ø gör vi alldeles säkert med hjälp av polisen,
oh ø do we completely surely with help from police-the
oroa dig inte!
worry you not!
'You'll never catch me! Oh, we surely will with a little help from the police, don't you worry!'

(300) A: Ni kommer aldrig att få tag på mig!
you come never to get grip on me
B_4: Jodå, ø hittar dig alldeles säkert med hjälp av polisen,
oh ø find you completely surely with help from police-the
oroa dig inte!
worry you not!
'You'll never catch me! Oh, we'll find you surely with a little help from the police, don't you worry!'

Sigurðsson (2011: 290) follows Mörnsjö and argues that there are no absolute grammatical constraints on the types of referents of null objects. Rather, this is governed by the Relative Specificity Constraint:

Relative specificity constraint
The dropped object *cannot be more specific* than the subject.

3rd person is then understood to be less specific than 1st and 2nd persons, and – HUMAN is less specific than + HUMAN.[12]

Crucially, in Norwegian, in the right context, the following examples would be perfectly acceptable and would not be pragmatically odd:

(301) A: De finner meg aldri.
'They will never find me.'
B: ~~Deg~~ finner de lett, ja.
~~you~~ find they easily yes
'You, they will find easily.'

(302) (Pointing to oneself):
~~Meg~~ vil de vel ikke ha med på laget.
~~me~~ want they well not have with on the team
'They wouldn't want me on the team.'

(303) Ja, kongen ja. ~~Han~~ kan nok dokumentaren ikke si noe om.
'Yes, the king. ~~Him~~ cannot probably the documentary tell us anything about.'

12. This constrains is proposed by Sigurðsson (2011), yet clearly draws on functional insights like the animacy hierarchy of Chafe (1976) and Comrie (1981) and the Topic Accession Hierarchy in Givón (1983).

Examples (301) and (302) go against Mörnsjö's (2002) claim that topicalized 1st and 2nd person objects cannot be dropped. Furthermore, the three examples contradict Sigurðsson's (2011) RSC. In (301), the topicalized object (2nd person) is more specific than the subject (3rd person). The same is true of (302), where the object is 1st person, hence more specific than the subject, which is 3rd person. In (303), the elided topicalized object is + HUMAN, but the subject is – HUMAN.

That ellipses such as this are possible at all implies that the null objects in these cases must be topics, not focussed elements. In the non-elliptical versions, the fronted constituents must be focussed elements, not topics. This is somewhat odd and contradicts what we established – that focussed elements cannot be omitted. It is possible that in these cases, the constituents in question are so strongly present in the discourse that they can be silent despite being focus constituents. In (302), for instance, one could argue, along the lines of Jouitteau (2004), that the pointing gesture instantiates the [SPEC,CP] position.

Therefore, I argue that objects in [SPEC,CP] can be either topic or focussed constituents. As focussed constituents, they cannot be omitted for pragmatic/information structural reasons. As topics, however, they may be elided.

7.1.5 Interacting syntactic and semantic restrictions

Let's recapitulate the empirical facts. We established that the C-domain, and in particular the specifier of C, is most frequently subject to discourse ellipsis. The C-domain has been established as particularly discourse relevant. Yet, we also saw that when the element in [SPEC,CP] bears focus, i.e. represents new information, it cannot be elided. Topical elements, on the other hand, are easily omitted in this position. This difference cannot be explained by anything other than differences in discourse prominence. Focus elements represent new information and cannot be deleted. Topic elements represent given information, which can be omitted without any loss of meaning. Topics are semantically recoverable, while focussed elements are not.

It appears that discourse-related restrictions are more influential than structural ones. This is confirmed by medial ellipses. The fact that they occur at all shows that licensing conditions based on given information and discourse prominence are influential, more so than purely structural restrictions. In sentences with medial ellipsis the elided element is sufficiently discourse-prominent to remain silent even though it is not placed in the inherently discourse-related C-domain.

In conclusion, I argue that elements in the C-domain are more easily elided than elements elsewhere in the clause because the C-domain is inherently discourse-related. Silent elements in the specifier of C are particularly susceptible to ellipsis. However, elements that represent new information (focussed elements) cannot be elided from this position, due to recoverability conditions. Hence,

elements that are not recoverable cannot be elided even when they are in [SPEC,CP]. Elements not located in the C-domain are harder to omit because they are not in the inherently discourse-related domain. Nevertheless, if an element is sufficiently prominent in the context and thus recoverable, it can be silent. Discourse-related licensing conditions thus overrule structural licensing conditions. In the next section, I turn to a robust empirical pattern in the C-domain, where structural requirements overrule semantic ones.

7.2 The CP–TP connection – silence under agree

Data from spontaneous speech show that the previous topic drop analyses are empirically limited: [SPEC,CP] is not the only construction subject to discourse ellipsis. In sentences where C is occupied by a non-main verb, the whole C-domain can be silent. In what follows, I will describe the structural restrictions operative in the C-domain.[13] I will explore an analysis based on the assumed tight connection between the C-domain and the T-domain, as proposed in Chomsky's recent work. First, I present the relevant data and then I introduce the theoretical background on the C-T connection and then I propose an analysis of the data.

7.2.1 Empirical patterns

We know that a sentence-initial finite auxiliary is often non-realized if the subject is also phonologically null, as in (304a). Also, the subject can be omitted on its own, when the auxiliary is realized, as in (304b). However, if the subject is realized, the auxiliary cannot be null (304c):

(304) a. ~~Jeg har~~ bodd ett år i Mexico. NoTa
~~I have~~ lived one year in Mexico.
b. ~~Jeg~~ har bodd ett år i Mexico.
~~I~~ have lived one year in Mexico.
c. *Jeg ~~har~~ bodd ett år i Mexico.
*I ~~have~~ lived one year in Mexico.

The same restriction applies to the omission of expletive subjects and copula verbs, as in (305), and to referential subjects and copula verbs, as in (306):

13. The data investigated here are a subset of discourse ellipsis types, but this subset is the most susceptible to discourse ellipsis.

(305) a. ~~Det er~~ vanskelig å si. NoTa
~~It is~~ difficult to say.
b. ~~Det er~~ vanskelig å si.
~~It is~~ difficult to say.
c. *Det ~~er~~ vanskelig å si.
It ~~is~~ difficult to say.

(306) a. ~~Jeg er~~ født i Tromsø og oppvokst her. NDC
~~I am~~ born in Tromsø and brought up here.
b. ~~Jeg~~ er født i Tromsø og oppvokst her.
~~I~~ am born in Tromsø and brought up here.
c. *Jeg ~~er~~ født i Tromsø og oppvokst her.
~~I am~~ born in Tromsø and brought up here.

It appears that in all cases, it is acceptable to leave out the subject by itself, and also the subject and the verb together. Leaving out only the finite verb leads to unacceptability.

A tentative descriptive generalization is that it is generally possible to leave out only constituent number one in the linear string or constituents one and two together. However, leaving out only constituent two when constituent one is phonologically realized is not acceptable. Considering only this subset of data, a linear model of analysis (à la Napoli 1982) in which deletion occurs from left to right is plausible. However, this conclusion must be rejected.

All sentences in (304)–(306) are subject-initial: the subject occupies the specifier of CP. Sentences where the subject is not the fronted constituent display a different licensing pattern. The sentences in (307) all have topicalized direct objects. As in subject initial examples, the topicalized object can be omitted by itself, as in (307). This is what was described earlier as topic drop. The finite auxiliary cannot be omitted by itself when the object in [SPEC,CP] is phonologically realized, as in (307). However, omitting a topicalized object together with a finite auxiliary verb in C, as in (307), is *not* possible. As seen in (307d), it is also not sufficient that the object be a topic, it has to be fronted:

(307) A: Vi tenkte vi skulle prøve det derre det er et reisebyrå som heter Nazar.
'We thought we should try that (…) travelling agency called Nazar.'
a. B: ~~Det~~ har jeg sett i katalogen ja. NoTa
~~it~~ have I seen in the catalogue yes
b. B: * Det ~~har~~ jeg sett i katalogen ja.
it ~~have~~ I seen in the catalogue yes
c. B: *~~Det har~~ jeg sett i katalogen ja.
~~it have~~ I seen in the catalogue yes
d. B: * Jeg har sett ~~det~~ i katalogen ja.
I have seen ~~it~~ in the catalogue yes.

It seems acceptable to leave out a fronted subject or both the subject and a non-main verb – either an auxiliary or a copula verb. However, if an object is topicalized, it can only be omitted on its own and not together with the finite non-main verb.

The licensing patterns displayed in these examples are meant to describe discourse ellipses in spoken Norwegian. As mentioned in Chapter 1, other registers, such as newspaper headlines, also display sentence fragments or ellipses. The licensing restrictions appear somehow different from the ones in spontaneous speech. In a headline, the main verb is often omitted, even when the sentence-initial subject is not elided. Most often, it is a copula verb that is silent:

(308) Kredittkrisen ~~er~~ snart over
Credit crisis-the ~~is~~ soon over

This observation could be seen as contradicting my analysis. Yet, these are distinct linguistic registers, so it is not surprising that the licensing restriction differ. Crucially, in headlines, substantial information must be highlighted; this is why the element is part of the headline in the first place. Discourse ellipses follow the general given/new composition of sentences. You start with something given and seek to say something new about it. The given part is then easily omitted. Headlines are not based on this given/new principle. They seek to include only substantial information, excluding elements that are only linguistically mediating, such as the copula verb.

How can this pattern be accounted for within my model? I will first consider an analysis based on Travis (1984): that the CP layer is absent in subject-initial clauses in general. This analysis was not developed for ellipsis, but I will consider the consequences of applying it to discourse ellipsis. I will demonstrate why this analysis cannot be correct and propose an alternative based on the agreement relation between C and T.

7.2.2 No CP in subject-initial clauses?

The empirical patterns in (304)–(307) show a striking asymmetry between subject initial and non-subject initial clauses when it comes to licensing ellipses. The general distinction between subject and non-subject initial main clauses has been discussed in the literature on Germanic (Travis 1984; Zwart 1997, Mikkelsen 2005). It has been proposed that, unlike non-subject initial clauses, which are CPs, subject-initial main clauses are bare TPs, i.e., the CP layer is truncated or not formed in the first place. The motivation for such an assumption is that in subject initial main clauses, movement to the C-domain is vacuous, i.e. the C-domain reduplicates the T-domain; thus the C-domain is superfluous.[14] This is contrary to what we find in

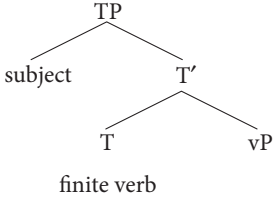
14. This is related to the claim that in many languages there is a strong correlation between subjects and topis. Subjects are said to be unmarked topics (Lambrecht 1994).

non-subject initial clauses. When a non-subject fills [SPEC,CP], the movement is no longer vacuous. Travis (1984) and Zwart (1997) postulate a structural asymmetry between subject initial and non-subject initial clauses. Given the attested asymmetry in discourse ellipses, this seems like a promising direction. I will therefore explore whether this analysis can account for the empirical patterns attested.

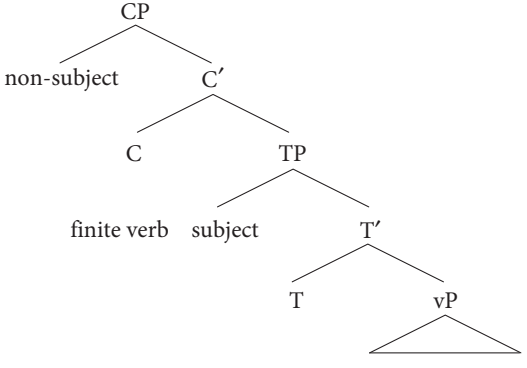
Zwart (1997) argues that the CP level is reserved for A′-phenomena and that subject-initial main clauses have no A' syntax. Nor is there a need for a CP to link the clause to a matrix clause. The minimalist assumption is therefore, according to Zwart (1997), that the CP is absent in these cases.[15]

According to this view, the analysis of subject-initial and non-subject initial clauses would be as follows:

(309) **Subject-initial clause**



(310) **Non-subject initial clause**



Non-subject initial sentences are CPs, whereas subject initial sentences are TPs.

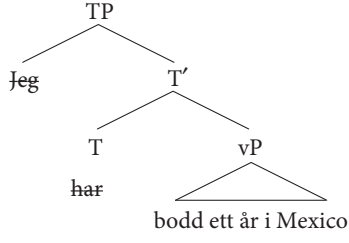
This is relevant for us because it implies that the C-domain is not obligatory; it is present only when motivated by topicalization, i.e. in non-subject initial cases. If we apply this idea to discourse ellipses, the analysis is as follows: in subject initial ellipses,

15. Whereas movement to [SPEC,CP] is triggered by a *wh*-feature or a topic feature in inversion cases, i.e., non-subject initial cases, there is no feature triggering subject movement to [SPEC,CP] in subject-initial main clauses. Zwart (1997) also points to evidence against generalized V-to-C movement from double agreement phenomena in Dutch and from observed asymmetries between subject clitics and objects clitics in Travis (1984, 1991), but I will not go into this here.

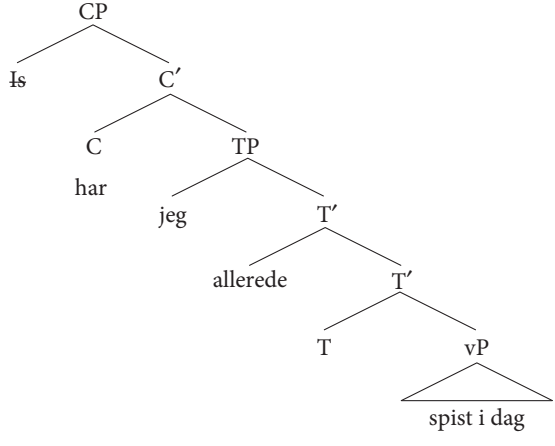
the movement to CP would be vacuous and there is no need to project the CP; or, the CP may easily be truncated. Both the subject and the finite auxiliary can be dropped and the entire TP can be silent. In non-subject initial ellipses, the CP must be projected because the movement is not vacuous; only [SPEC,CP] can be silent, not the whole projection.

Under this analysis, the observed empirical asymmetry between the two types of ellipses boils down to the assumption that ellipsis targets different projections in the two cases. The elided elements occupy distinct structural positions. The rule would be something along the lines of: if CP is projected for topicalization, you cannot delete the whole projection. Only [SPEC,CP] can be silent. But, if CP is not projected in the first place, as in subject-initial cases, then you may leave the whole TP silent (subject and auxiliary).

(311) **Subject-initial ellipsis**



(312) **Non-subject initial ellipsis**



In this view, the two cases receive distinct analyses. At first, this seems like a promising explanation. I will however argue that a full CP-TP analysis is to be preferable for both subject-initial and non-subject initial ellipses. Firstly, under an analysis of subject-initial ellipses as bare TPs, we would be forced to state that either [SPEC,TP] alone or the whole T-projection could be non-realized since the subject is frequently omitted on its own. We would then need to assume specific properties for [SPEC,TP], parallel to the properties assumed for [SPEC,CP], which make

topic drop possible. If subject-initial ellipses were bare TPs, then [SPEC,TP] would have to allow topic drop of the subject. We would thus be forced to assume two topic positions, one in TP for subjects and one in CP for non-subjects. This seems counterintuitive and inelegant. On these grounds, I assume that the CP-TP analysis is preferred compared to an analysis where subject-initial ellipses are TPs and non-subject initial ellipses are CPs, as proposed by Travis (1984).[16]

There are other independent arguments for including the C-domain for subject initial main clauses. Without this domain, it is unclear how one explains the V2 requirement. In the CP-TP model, the finite verb always targets the same position – C. In a non-CP analysis, the finite verb would have to be placed in different positions depending on the clause type. It would occupy C in non-subject initial main clauses and T in subject initial main clauses. It is not desirable to assume two distinct positions for the finite verb in V2 languages. Doing so, we would lose an important generalization.

Another argument for keeping the CP in subject-initial clauses is that the C-domain is crucial for explaining the distribution of sentence adverbials in Norwegian. As is well known, in subordinate clauses the sentence adverbial is placed before the finite verb, while in main clauses it follows the finite verb:

(313) Du vet at jeg aldri drikker kaffe.
you know that I never drink coffee

(314) Jeg drikker aldri kaffe.
I drink never coffee

(315) Kaffe drikker jeg aldri.
coffee drink I never

Assuming that sentence adverbials are adjoined to TP,[17] the distribution of these elements is difficult to account for without assuming a CP layer in subject-initial clauses. In non-subject initial cases, the analysis is straightforward, since CP projects as usual. In subject-initial cases, if there is no CP, the finite verb cannot move across the sentence adverbial because there is no position available to be a target for movement. I therefore conclude that the bare TP analysis of subject-initial clauses (and the corresponding discourse ellipses) must be rejected. In a full CP-TP analysis of these clause types, the distributional pattern is easily accounted for. Moreover,

16. One might object that this argument saying the consequence of two topic positions would be inelegant, overlooks the possibility that ellipsis in [SPEC,TP] would account for a number of properties of subject ellipsis. Thank you to an anonymous reviewer for pointing that out. I will not dwell on this issue here, but rather point to Mikkelsen (2005) for an account of this issue.

17. It is standardly assumed that Norwegian sentence adverbials are adjoined somewhere in the T domain (Holmberg & Platzack 1995; Åfarli & Eide 2003).

what I propose provides a unified analysis for both types of ellipsis (subject initial and non-subject initial). Clearly, this is a theoretical advantage.

7.2.3 Feature inheritance from C to T – a phase-based analysis

Having rejected the truncated-CP analysis, I now propose an alternative view. I believe that it is fruitful to examine the empirical patterns of subject-initial vs. non-subject initial discourse ellipses in light of certain insights from recent work by Chomsky emphasizing the close relationship between the C-domain and the T-domain (Chomsky 2000b, 2001, 2004, 2008). To present this argument properly, it is necessary to introduce the notion of phases and to motivate that vP and CP, and not TP are the relevant phases in the clausal architecture. For the purposes of my analysis, the theory of phases is in itself not decisive. What is important is the connection between C and T, and in particular Chomsky's hypothesis that T inherits its features from C. Hence, when I introduce the notion of phases and the theoretical background for it, this is mainly to provide background for certain assumptions about the C/T relation upon which I build my analysis.

The introduction of phases was motivated by the idea that the Language Faculty can only hold a limited amount of structure in 'active memory' (Chomsky 2001: 9). Because convergent derivations are compared for economy, Chomsky, partly inspired by Uriagereka (1999), searched for a more local way to determine the convergence of derivations. The assumption he made was that syntactic structures are constructed one phase at a time. At the end of each phase, one chunk of structure is transferred to Spell Out and sent to LF and PF to be checked at the C-I and the A-P interfaces. Once a syntactic object is spelled out, it is no longer accessible for further derivation, as expressed in the Phase Impenetrability Condition (PIC):

> In a phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations. (Chomsky 2000b: 108)[18]

The next step is to specify at which points the derivation undergoes Spell Out. What are the phases assumed?[19] According to Chomsky (2001: 9), phases are propositional in nature. He posits two phases, vP and CP:[20] CP represents a complete clausal

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18. The principle has been reformulated in more recent work.

19. One could envision a system in which there was a phase associated with every application of the operation Merge. In that case, the derivation would be sent off to Spell Out after every application of Merge (see Epstein & Seely 2002; Müller 2009). However, the result would be problematic (Chomsky 2007). For instance, VP cannot be a phase, since at this point of the derivation, we don't have information about whether the complement of V will be spelled out *in situ* or be raised, and we also don't know what its structural Case will ultimately be.

20. The possibility that DP is a phase, too, has also been proposed (e.g., in Svenonius 2004), but will not be explored here, since this is not of relevance to the empirical issue at hand.

complex including a specification of force and vP represents a complete thematic (argument structure) complex including an external argument (Radford 2004). This means that once vP is constructed, Spell Out applies to the complement of its head, namely VP. Then the semantic and phonological components inspect the material to check for convergence. The same process applies after the construction of CP. Then, the TP is spelled out and checked for convergence.

This perspective leaves one issue unresolved. When we reach the end of the derivation, i.e., the last CP phase, the TP is spelled out. At this point, neither C nor the specifier of CP is spelled out and transferred to the semantic and phonological component. Also, at the end of the overall derivation, all remaining constituents undergo transfer to the interfaces and hence are spelled out (Radford 2004: 184). Fitzpatrick (2006) uses this aspect of phase theory to account for English aux-drop questions. His analysis is that in such questions, the last spell out of the remaining constituents, i.e., CP, fails to apply. Only TP is interpreted and transferred to LF and PF. According to Chomsky, CP and vP are the phases of the clause, and TP is a derived phase, which inherits its features from C:

> From elementary conceptual considerations then, plausibly traceable to S[trong] M[inimalist] T[hesis], we conclude that v*P and CP are the phases of the clausal skeleton, and that the uninterpretable features of C are assigned to T, which does not head a phase. (Chomsky 2007: 19)

It may seem peculiar that T is not a phase head parallel to C and v. It appears that on the surface, the phi-features involved in nominative agreement are placed in T and not in C. Also, raising of the subject targets the specifier of T, not [SPEC,CP] (Chomsky 2008). There is empirical motivation for the hypothesis that T lacks phi-features and tense features in the lexicon and that these features are derivative from C. One of the arguments is based on the assumption that T manifests these features only when it is selected by C. There is always a C projection in finite sentences, whereas non-finite sentences can be bare TPs, with no CP layer:

> The antecedent reason is that for T, phi-features and Tense appear to be derivative, not inherent: basic tense and also tenselike properties (e.g., irrealis) are determined by C (in which they are inherent (…)) In the lexicon, T lacks these features. T manifests the basic tense features if and only if it is selected by C (default agreement aside); if not, it is a raising (or ECM) infinitival, lacking phi-features and basic tense. So it makes sense to assume that Agree and Tense-features are inherited from C, the phase head. (Chomsky 2008: 143–144)

I will not adopt this analysis for Norwegian. Instead, I will assume that all finite and non-finite Norwegian clauses (with the exception of small clauses) are CPs. Unline for English, for Norwegian it is standardly assumed that the complementizer in infinitive clauses occupies C; consequently, infinite clauses are CPs.

Miyagawa (2010) presents both conceptual and empirical motivation for the assumption that agreement is associated with a head higher than T. He argues that the assumption that agreement features are merged in C has as a consequence that grammatical features responsible for computation such as movement will be manifested only on phase heads, i.e., C, v, and possibly D:

> Given that any operation beyond initial Merge takes place within phases, it makes sense that the elements triggering these operations are merged on phase heads, phi-feature agreement being one such element. (Miyagawa 2010: 16)

Empirical data support this idea. Firstly, in English, environments where agreement (and Case) is not assigned, such as ECM[21] constructions, involve a "bare" TP with no CP layer (Chomsky 2008). A simple way to view this is that C provides the agreement and in its absence T cannot bear agreement (or Case). A second piece of empirical evidence is that agreement is occasionally seen on C. In some languages, for instance West Flemish, complementizers have visible phi-features (Haegeman 1992; Shlonsky 1994). Evidently, such empirical facts support the idea that there are agreement features in C.[22]

To sum up, it is assumed that T has no Agree features or tense features in the lexicon. Rather, T inherits these features from C (Chomsky 2007, 2008; Richards 2007):[23]

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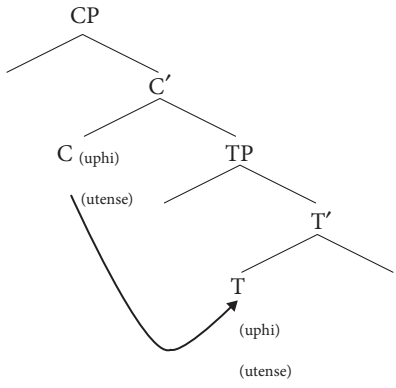
21. ECM = Exceptional Case Marking

22. There is more recent work on this issue suggesting that the picture is more complicated. Haegeman & van Koppen (2012) discuss complementizer agreement in two Dutch dialects and show that the phi-features of C cannot be simply an additional reflex of the agreement relation between T and the subject. They state that complementizer agreement is not the result of a sharing of phi-features between T and C and that it cannot be taken as evidence for the claim that there is a phi-feature dependency between T and C. I will still employ the C-T-relation as a theoretical foundation for my analysis. The fact that these issues may be more fine-grained, as argued by Haegeman & van Koppen (2012), does not affect my analysis.

23. One unresolved issue under this analysis is the content of the T projection. It is proposed that both tense and agreement features are merged in C, and then inherited by T. But what is then merged in T in the first place? It seems peculiar to merge T only as a recipient of features. This is at odds with the arguments I made earlier: that all functional and lexical projections have an abstract G-SEMANTIC core. What is the G-SEMANTIC core of T, if all features are inherited from C? Kidwai (2010) states that a consequence of Chomsky's understanding that all of T's features are inherited from C is that T will be a radically empty head, which is unlistable in the lexicon. Chomsky (2007: 20) discusses the same matter, and proposes the following solution:

> What is true of agreement features appears to hold as well for tense: in clear cases, T has this feature if and only if it is selected by C, though C never (to my knowledge) manifests Tense in the manner of phi-features in some languages. If that is basically accurate, then there are two possibilities. One is that Tense is a property of C, and is inherited by T. The other is that Tense is a property of T, but receives only some residual interpretation unless selected by C (…) One advantage of the latter option is that T will then have at least some feature in the lexicon, and it is not clear what would be the status of an LI with no features (one of the problems with postulating AGR or other null elements).

(316)



Importantly, this feature inheritance relation implies a kind of agreement between C and T or that the two projections in some sense duplicate each other. It appears that the proposition is recreated in the C-domain.

7.2.4 Silence under agree

Building on the insights gained, I explore the licensing patterns in subject-initial and non-subject initial discourse ellipses:

(317) Jeg har drukket morgenkaffen allerede.
I have drunk the morning coffee already.

(318) ~~Jeg~~ har drukket morgenkaffen allerede.
~~I~~ have drunk the morning coffee already.
Omitted topicalized subject

(319) ~~Jeg har~~ drukket morgenkaffen allerede.
~~I have~~ drunk the morning coffee already
Omitted initial subject and auxiliary

(320) Morgenkaffen har jeg drukket allerede.
The morning coffee have I drunk already.

(321) ~~Morgenkaffen~~ har jeg drukket allerede.
~~The morning coffee~~ have I drunk already.
Omitted topicalized object

(322) *~~Morgenkaffen har~~ jeg drukket allerede.
*~~The morning coffee have~~ I drunk already.
Omitted initial object and auxiliary

I propose an overarching analysis that explains these patterns and argue that discourse ellipses in the C-domain are governed by the principle *Silence Under Agree*:

Silence under agree

When all elements in the C-T complex are part of the same Agreement relation, then all these elements can be phonologically unrealized. If the constituent in [SPEC,CP] is not part of this agreement system, ellipsis of the whole domain is not possible. Ellipsis of only [SPEC,CP] is possible in any case, given that the semantic identity criteria are fulfilled.

In the next section, I will analyse each example type, in order to show how the proposed principle can explain the empirical patterns. First, I discuss examples in which only [SPEC,CP] is empty (subject drop and object drop) and then sentences in which the whole C-complex is silent.

7.3 Agreement and silence in the C – T complex

7.3.1 Omitted topicalized subject

Leaving out a topicalized subject is, as we have seen, very frequent:

(323) ~~Jeg~~ har drukket morgenkaffen allerede.
I have drunk the morning coffee already.

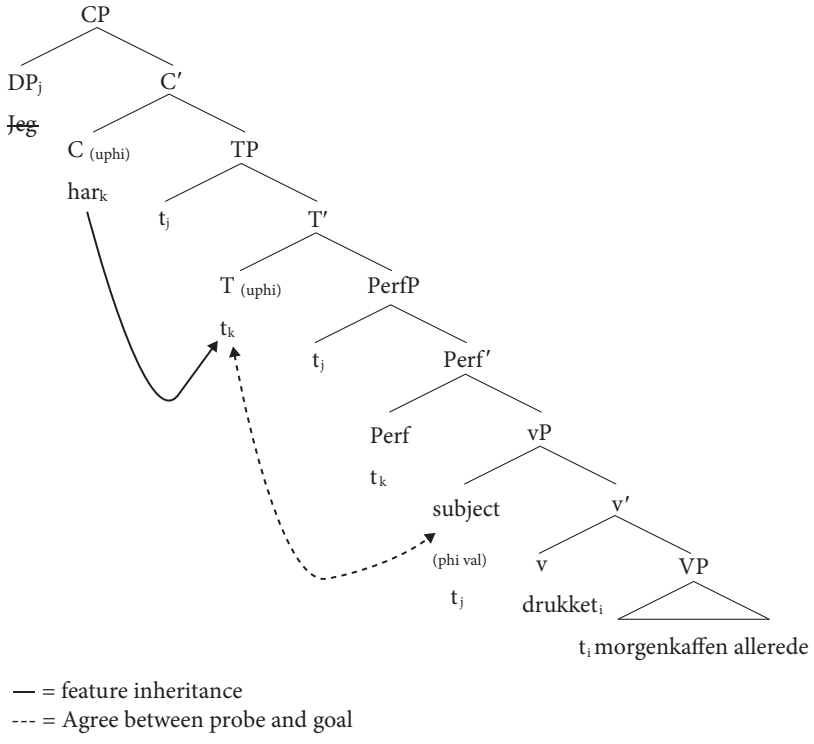
The elided subject is semantically recoverable from the context; there is no linguistic trace of it within the sentence boundaries. The subject is a topic along the lines of pragmatic aboutness (Reinhart 1981). It represents given information, hence ellipsis of this element is expected. Expletive subjects can also undergo ellipsis from [SPEC,CP]. As argued earlier, their semantic content does not need to be recovered. The structural restrictions are the same as for the referential subjects.

Most important for our purposes is the part of the analysis that involves the last phase: TP and CP. T inherits its unvalued agreement and tense features from C. The subject in [SPEC,vP] then enters into an Agree relation with T, so the relevant features of T are valued. As a consequence, the same values are transferred to C, from which T originally inherited the features. The subject, in turn, moves from [SPEC,vP] through [SPEC,PerfP][24] and [SPEC,TP] and all the way up to [SPEC,CP]. An Agree relation is established between C and [SPEC,CP] as an extension of the agreement relation between the subject and the verb. Importantly, in this case, the features of the subject influence all positions in the C-T complex, including [SPEC,CP], either through Agree (head positions) or by movement (specifier positions).

24. I have chosen the label PerfP for the projection of the auxiliary to unambiguously indicate that this is a projection of a perfective auxiliary. An alternative would be the label $vP_{AUX.}$ I leave this question of labeling open.

I argue that nothing is really inserted in the silent positions, in this case all of the positions occupied by the subject and its traces. The relevant unvalued features are present in the structure from the outset; in ellipses, these features are valued on the basis of a silent conceptual element. I assume that each syntactic node contains a bundle of unvalued features. The positions in a chain of copies can be valued all at once or the features of the lowest position can be valued first before moving upwards in the structure.

(324)



In this example, the fronted subject is not phonologically realized. Structurally, this ellipsis is licensed because it involves the left edge of the clause, [SPEC,CP], which is an inherently discourse-related position prone to ellipsis. We also know that ellipsis most often occurs from the top of the sentence structure. This condition is also fulfilled in this case.

Note that dropping of subjects is restricted to subjects in [SPEC,CP] in declarative main clauses. A silent subject would not be possible in other positions:

(325) *Morgenkaffen har ~~jeg~~ drukket allerede.

(326) *Har ~~jeg~~ drukket morgenkaffen allerede?

Subject drop thus requires an empty [SPEC,CP] and is illicit when [SPEC,CP] is lexicalized. This is the insight from previous topic drop analyses, formalized in the

Empty Left Edge Condition (Sigurðsson & Maling 2010). It is also compatible with my proposed principle *Silence under Agree*. Even if the subject is not inserted, the underlying structural frame is unambiguously retrieved.

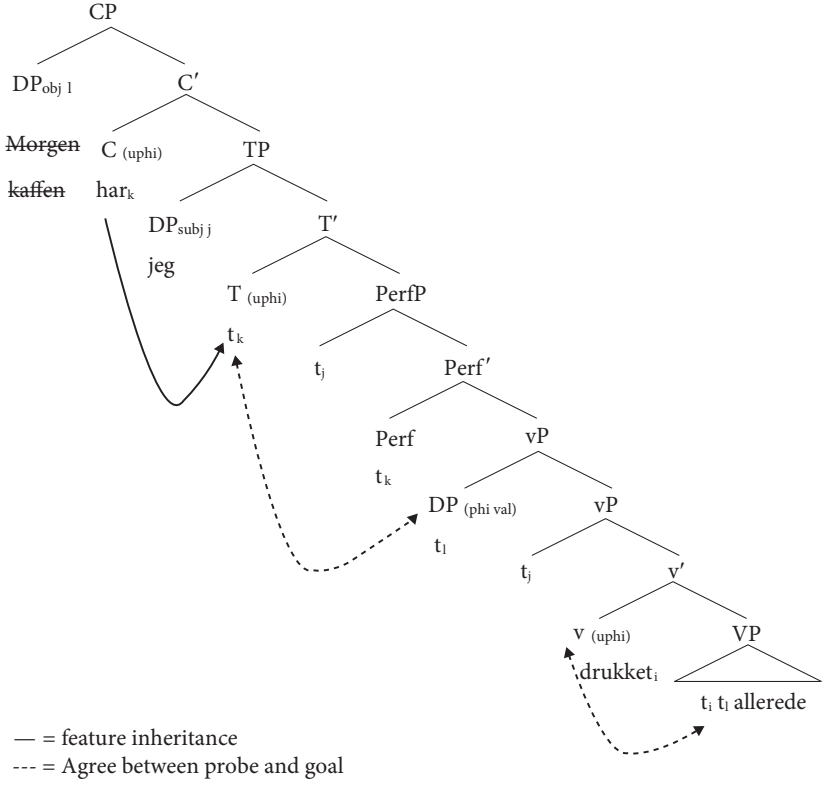
7.3.2 Omitted topicalized object

Objects and complements of prepositions can be omitted from [SPEC,CP] as well:

(327) ~~Morgenkaffen~~ har jeg drukket allerede.
~~The morning coffee~~ have I drunk already.

I propose the following analysis for this sentence:

(328)



The first step in this derivation is that the vP is assembled. The head v acts as a probe and enters into an agreement relation with the object *in situ*. At the end of this phase, the complement of the phase head v, i.e., VP, is spelled out. However, in order for its features to be accessible to further movement, in this case topicalization, the object cannot stay *in situ* inside the VP. If it did, it would be spelled out

together with the rest of the VP. It would then be transferred to the interfaces and would not be accessible to further movement. To ensure that it is accessible for further derivation, the object is moved to an outer specifier of VP, triggered by an edge feature (Chomsky 2008).

After spell out of the first phase (vP), the perfective auxiliary is merged, forming a separate phrase PerfP, and then the TP is merged. In line with the derivation of the subject-initial sentence, the unvalued features in T originally inherited from C probe the subject in [SPEC,vP] and enter into an Agree relation with it. Consequently, the phi-features in T are valued and also the phi-features in C. The subject is first merged in [SPEC,vP] and then moved through [SPEC,PerfP], ending up in [SPEC,TP]. The finite auxiliary moves from Perf through T and finally targets C, Norwegian being a V2 language.

How is this ellipsis licensed? Semantically, dropping the object is licensed because it represents given information (topic) and the remainder of the sentence is about it. The semantic content of the object is thus recoverable sentence-externally since there is no linguistic trace of the object within the sentence boundaries.

On a structural level, this ellipsis is licensed since the underlying structural frame is sufficiently instantiated. The object moves into the specifier of CP, where it undergoes topic drop. In the model proposed here, we do not assume that an object is inserted, moved to [SPEC,CP] and then deleted. The object is not inserted in the first place. This is possible because [SPEC,CP] is not occupied by another constituent (cf. the Empty Left Edge Condition of Sigurðsson and Maling (2010). It is not a silent linguistic item that is inserted, but rather a bundle of features which are valued and which by movement value the underspecified feature matrices in the relevant positions.

7.3.3 Omitted topicalized subject and auxiliary

Intriguing at this point are sentences in which discourse ellipsis affects not only the specifier of CP, but also finite auxiliaries or copula verbs. They cannot be explained by traditional topic drop analyses since they involve more than the constituent in [SPEC,CP].

A note regarding the agreement relations is necessary at this point. The unvalued phi- and tense-features in T are inherited from C. When T enters an agreement relation with the subject in [SPEC,vP] and later [SPEC,TP], all three positions – C, [SPEC,TP] and T – are part of the same agreement relation. [SPEC,CP] is an A′-position, which means its content varies depending on the element moving into it. When the moved element is the subject, the [SPEC,CP] is included in the subject/verb agreement relation. When it is a non-subject, the subject/verb agreement relation is not extended into [SPEC,CP]. The abstract spec/head agreement internal to a phrase can thus be considered a potential agreement relation, only operative in the cases

where agreeing elements are inserted into the relevant positions. As stated in *Silence under Agree*, these agreement patterns have consequences for licensing of ellipsis.

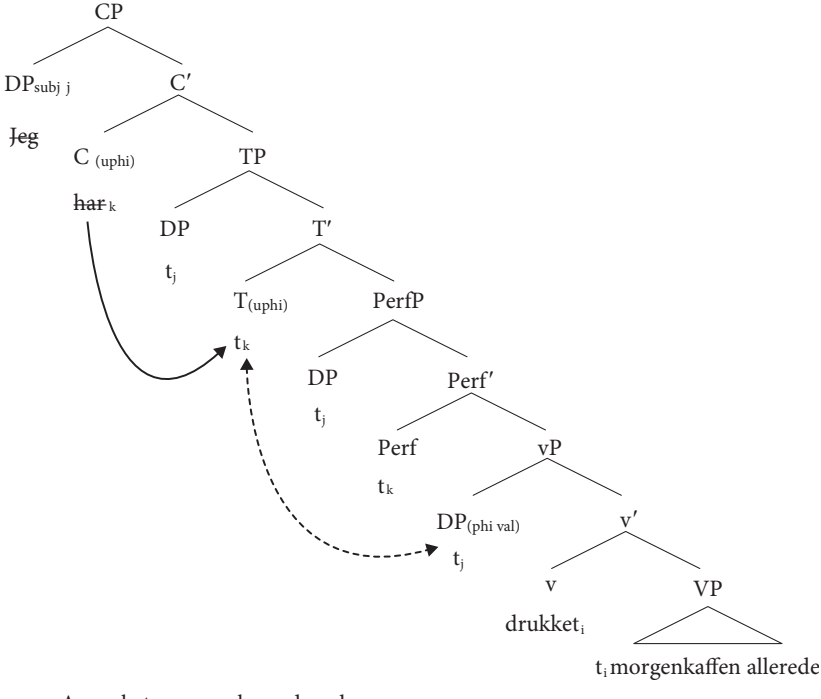
Empirically, it is evident that [SPEC,CP] does not inherently agree with the subject and verb in the C-T domain. In languages with subject-verb agreement, a topicalized object or another topicalized constituent does not enter into an agreement relation with the subject and the verb. Hence, the hypothesis that [SPEC,CP] does not inherently take part in the same agreement relations as its head appears to be very well grounded. It can obviously be made part of this relation, but only if the element moving into [SPEC,CP] is also part of the agreement group, i.e., if this element is the subject.

Sentences where both the topicalized subject and the finite auxiliary have a null realization are quite frequently attested in spontaneous speech:

(329) ~~Jeg har~~ drukket morgenkaffen allerede.
~~I have~~ drunk the morning coffee already

The derivation is parallel to the one we saw for ellipses with only a silent subject in [SPEC,CP], except that in this case the finite auxiliary in C is also null:

(330)



--- = Agree between probe and goal
— = feature inheritance

Thus, in sentences with topicalized subjects, the whole CP-TP complex can be phonologically uninstantiated. I will argue that in such cases, the potential agreement relation between [SPEC,CP] and C is activated, so the whole phrase can be silent. When a non-subject moves into [SPEC,CP], the abstract agreement constellation is not activated. Despite the underlying abstract agreement relation between C and [SPEC,CP], the fronted non-object leads to a non-realization of this agreement relation and the whole phrase cannot be silent, only the element in [SPEC,CP]. This is summarized in *Silence under Agree*.

More generally, it appears possible to not realize elements starting from the top of the structure, continuing down as long as the elements in question belong to the same agreement relation. As soon as the omission mechanism encounters an element belonging to an agree relation other than one with the constituent situated in [SPEC,CP], ellipsis is no longer possible.

Regarding the semantic restrictions, both silent constituents are semantically identified. The subject is sentence-externally recoverable and it is also a sentence topic representing given information. The perfective auxiliary, on the other hand, is recoverable sentence-internally through the verbal participle. The assumption is thus that perfective auxiliaries only contribute perfectivity, which is also expressed through the participle. Hence, the auxiliary is fully identified through the participle and is therefore easily elided.

Turning to the structural side, the null realization of the whole phase (CP and TP) is possible since both constituents are part of the same agreement relation, the one between the C- and the T-projections. T inherits unvalued phi-features from C and these features are valued through Agree by the subject in [SPEC,vP], after which they expand up to C. When the subject moves to [SPEC,CP], its features are also transferred into this position. Apparently, this facilitates the deletion of the whole complex. When the subject and the finite auxiliary are deleted, it is a whole chunk of related and agreeing structure that is not instantiated.

The overall assumption is thus that the whole C/T complex can be silent when the subject occupies [SPEC,CP] because it is part of the same agreement relation. Thus, when the subject is in [SPEC,CP], one can either omit only the topicalized object ([SPEC,CP] being an A′-position) or the subject and a semantically recoverable auxiliary in C.

7.3.4 Omission of topicalized object and auxiliary is impossible

In sentences with a topicalized object in [SPEC,CP], the restrictions are not parallel to the ones for sentences with a topicalized subject:

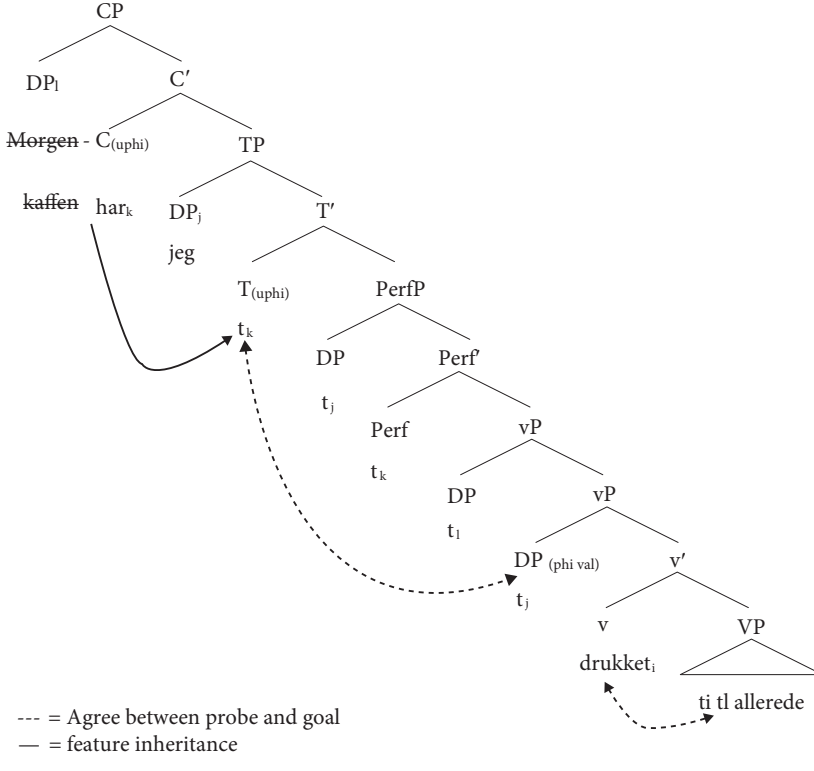
(331) *~~Morgenkaffen har~~ jeg drukket allerede.
*~~The morning coffee have~~ I drunk already.

As (331) shows, it is not possible to omit the finite auxiliary together with a topicalized object, unlike when the subject is topicalized. This asymmetry calls for an explanation.

In this example, both the elided object and auxiliary are semantically recoverable. The object is a topic, given in the context and hence identified sentence-externally, and the perfective auxiliary is recoverable through the verbal participle. Semantically speaking there is nothing to ban this ellipsis. Earlier, we saw examples where semantic restrictions appeared to overrule structural ones. In this case, strong structural restrictions override semantic ones, making these ellipses as unacceptable.

The assumed structural analysis of this examples is as follows: the object originates within the VP, where an Agree relation is established between the unvalued phi-features in v and the object *in situ*. The object then moves to the outer [SPEC,vP] and further by A′-movement up to [SPEC,CP].

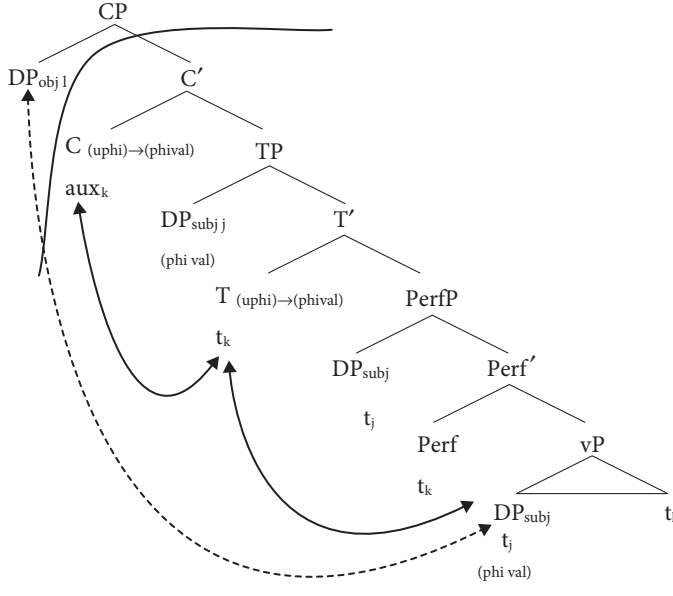
(332)



T probes the subject in [SPEC,vP], so the features in T and C are valued. The subject and verb are as a result connected through an agreement relation and instantiate the positions of the C/T domain which (by movement or agreement) are part of this relation: T, C and the specifier of T.

However, in this case, the object in [SPEC,CP] is not part of this related chunk of elements, unlike in the subject-initial ellipsis type. The object is A′-moved directly from [SPEC,vP] to [SPEC,CP], without involving the intermediate positions. Hence, the topic is not part of the same agreement group as the remaining C-T complex. As a result, only [SPEC,CP] can be uninstantiated, not the whole C-T complex. I argue that this ellipsis type is impossible because [SPEC,CP] is not part of the same agreement relation as the remaining C/T domain, i.e., the agreement relation established between the subject and the verb. The topicalized object agrees with v, further down in the sentence structure.

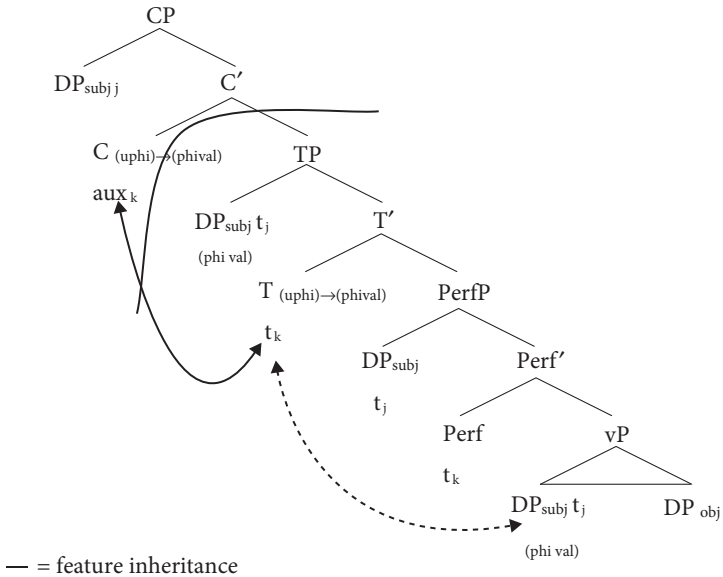
(333)



As stated earlier, the process of ellipsis starts from the top of the structure and moves down as long as the elements in the relevant positions are part of the same agreement relation. As soon as the omission mechanism encounters an element belonging to an agree relation other than the constituent situated in [SPEC,CP], ellipsis is no longer possible. In (331), where an object is fronted in [SPEC,CP], the agreement boundary is between [SPEC,CP] and C. In subject-initial ellipsis, the parallel agreement domain also comprises [SPEC,CP], i.e., the whole CP and the

whole TP since the subject and the finite auxiliary fill all relevant positions. Thus, in that case, the boundary for possible non-realization is drawn further down, between CP and TP:

(334)



One could argue that since the TP is included in the same agreement domain, the boundary for possible non-realization should be drawn even further down, below the TP. Then, the whole agreement domain would be deleted. I will argue that discourse ellipsis only targets the C-domain. Evidence for this is found in discourse ellipsis with sentence adverbials. I have argued that in subject-initial cases, the whole C-T domain can be silent. Yet, sentence adverbials are assumed to be adjoined in the T-domain and, as shown in (335), it is impossible to elide a sentence adverbial together with the subject and the verb:

(335) *~~Jeg har sjelden~~ drukket morgenkaffen allerede da.
*~~I have rarely~~ drunk the morning coffee already then

(336) ~~Jeg har~~ sjelden drukket morgenkaffen allerede da.
~~I have~~ rarely drunk the morning coffee already then

Firstly, the sentence adverbial is not part of the agreement relation between the subject and the finite auxiliary. Since I have argued that only elements agreeing with the topicalized subject may be elided, it is expected that sentence adverbials cannot be null. Another reason the sentence adverbial cannot be elided is that its semantic content is not recoverable. By definition, the function of sentence adverbials is to modify the semantic content of the whole sentence, thus they usually cannot be omitted.

One could, however imagine cases where the sentence adverbial is contextually available, as in this made-up conversation:

A: Vet dere hva Marit har gjort?
Do you know what Marit has done?
B: Hun har kanskje bodd et år i London.
She har maybe lived one year in London.
C: Eller hun har kanskje reist jorden rundt.
Or she has maybe travelled around the world.

Exceptions like these are called *medial ellipses*, as discussed in 7.1.5: elements may be omitted non-sentence initially, but only in specific, strong contexts.

Hence, I maintain that the ellipsis domain in subject-initial cases actually comprises only the C domain, not the T domain. This provides a structural explanation of the examples in (335)–(336). Given that the positions of the T domain are duplicates of the positions in the C domain, as is the case for subject-initial sentences, whether the domain of ellipsis includes only CP or both CP and TP is hard to answer. The examples with sentence adverbials provide suggestive evidence for the former.

7.3.5 Ellipsis in yes/no questions

So far, we have focussed on ellipsis in declarative sentences. Now, I turn to discourse ellipses in yes/no questions, where both the subject and the auxiliary are omitted:

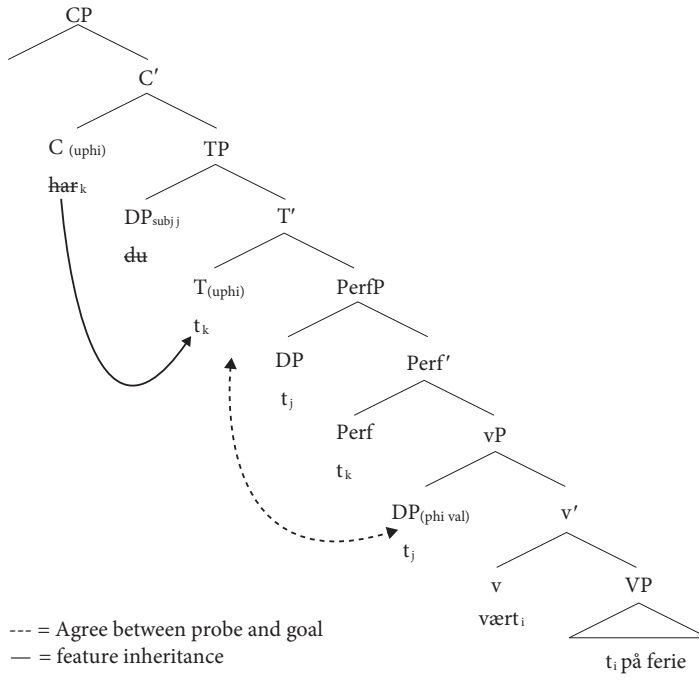
(337) ~~Har du~~ vært på ferie da? NoTa
~~Have you~~ been on holiday then?

My proposed analysis rests on the principle *Silence under Agree*: if all the elements in the C-T complex belong to the same agreement relation, i.e., if the subject and the finite verb occupy all relevant positions, the whole C-domain may be silent. Importantly, I argued that discourse ellipsis is restricted to the C-domain and cannot target the T-domain, for example. Examples like in (337) may at first appear to contradict my analysis: the subject is in [SPEC,TP], but is elided nevertheless. However, (338) shows how these elliptical questions are analysed.[25]

According to this analysis, in order to account for the ellipsis in (337), one has to assume that the whole TP-CP complex is elided. Theoretically, this is not a desirable consequence; we know that in declarative sentences discourse ellipsis is restricted to the C domain. If we could restrict ellipsis in yes/no-questions to the C domain, that would be preferable.

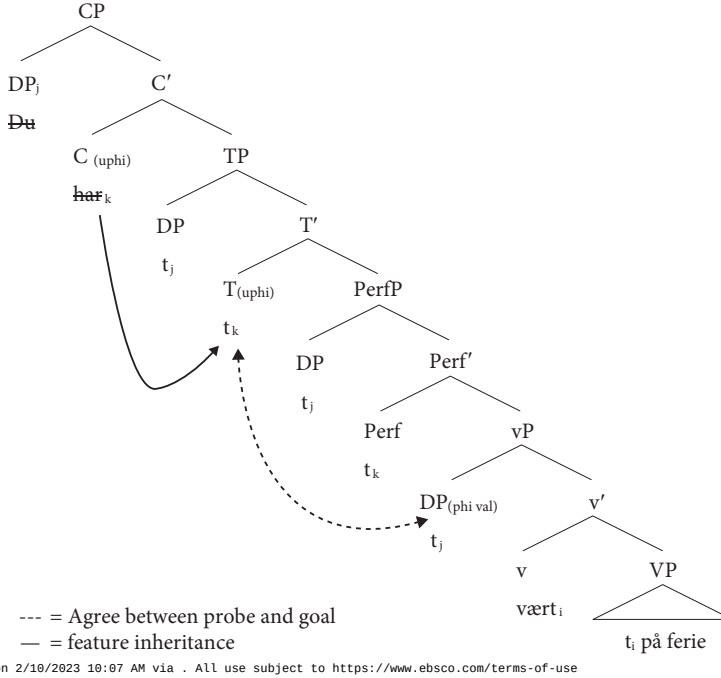
25. I have chosen to exclude the discourse particle *da* 'then' from the structural analysis.

(338)



I argue exactly that: discourse ellipsis is restricted to the C-domain in yes/no-questions. In my anaysis, examples like (337) are not structural yes/no-questions, but structural declaratives with interrogative intonation, as shown in (339):

(339)



The underlying structure of these questions is not unambiguous: from the elliptical form, it is unclear whether these sentences are underlyingly structural yes/no-questions or underlyingly declaratives with an interrogative intonation:

(340) ~~Har du~~ vært på ferie da?
~~Have you~~ been on holiday then?

(341) ~~Du har~~ vært på ferie da?
~~You have~~ been on holiday then?

Now, look at two varieties of the same example. First, (342) shows that the finite auxiliary may be omitted when the subject is phonologically realized. As indicated by the question mark, this ellipsis is not fully regular, but it is not completely unacceptable either:

(342) ?Du vært på ferie da?
you been on holiday then
a. ~~Har~~ du vært på ferie da?
~~have~~ you been on holiday then?
b. Har ~~du~~ vært på ferie da?
have ~~you~~ been on holiday then?

Following my hypothesis that discourse ellipsis is limited to the C-domain and that ellipsis targets the top of the structure and moves down, this is best analysed as a structural yes/no question, as in (342a). Under an interrogative structure analysis, the auxiliary is in C and the subject in [SPEC,TP]. If this ellipsis were analysed as a structural declarative, as in (342b), it would be a mystery why one could instantiate the auxiliary in C, but still delete the subject in [SPEC,TP].

Finally, it is equally possible to omit the subject, but realize the auxiliary. As in (342), the ellipsis in (343) is not fully regular, but it is quite acceptable.

(343) ?Har vært på ferie da?
have been on holiday then
a. Har ~~du~~ vært på ferie da?
have ~~you~~ been on holiday then
b. ~~Du~~ har vært på ferie da?
~~you~~ have been on holiday then

In this case, we must assume that the ellipsis is an underlying structural declarative with interrogative intonation. If so, the hypothesis that ellipsis is restricted to the C-domain and that it targets the top and moves down can be upheld.

From this I conclude that elliptical yes/no-questions may be structural yes/no-questions or structural declaratives with interrogative intonation. The crucial point is that discourse ellipsis is not allowed outside the C-domain. As shown, when this hypothesis is adopted, the empirical patterns can be explained.

7.3.6 Lexical verbs versus modal and perfective auxiliaries

We saw that a perfective auxiliary in C can be dropped if the subject is also silent. But can a finite lexical verb ever be deleted from the C-position? Ellipsis of lexical verbs appears to be rare. The most obvious explanation for this is the principle of recoverability: only elements whose semantics are recoverable can remain silent. The semantic contribution of a lexical verb is significant and rarely recoverable from the discourse. As a consequence, lexical verbs are rarely elided. But why is the semantic import of an auxiliary immediately recoverable? And what happens in cases where the lexical content of a lexical verb is actually discourse-activated and recoverable? Can it be deleted?

As for the first question, there is a clear difference between an auxiliary and a lexical verb. The auxiliary is a grammatical formative, i.e. a member of a closed category. From the form of the non-elided main verb (a past participle), the elided auxiliary is fully and unambiguously recoverable. However, recovering a lexical verb from the auxiliary is not possible (the auxiliary and the main lexical verb are underscored in the examples below):

(344) ~~Jeg~~ ~~har~~ bodd der hele livet mitt egentlig. NoTa
~~I have~~ lived there my whole life really

(345) *Jeg har ~~bodd~~ der hele livet mitt egentlig.
I have ~~lived~~ there my whole life really

A lexical verb, on the other hand, is a member of an open category and contributes a major part of the clause's meaning. Consequently, recoverability can account for the difference between discourse ellipsis of auxiliaries and lexical verbs.

Yet, the argument that lexical verbs are most often not semantically recoverable, whereas auxiliaries are, is only valid for perfective auxiliaries. As far as discourse ellipsis is concerned, there is a clear empirical difference between modal and perfective auxiliaries. Perfective auxiliaries can be omitted, whereas modal auxiliaries cannot:

(346) ~~Jeg har~~ gått på Sofienberg skole. NoTa
~~I have~~ gone to Sofienberg school

(347) ??~~Jeg~~ ~~vil/kan/skal/må~~ gå på Sofienberg skole.
I will/can/shall/must go to Sofienberg school

This difference is probably also governed by recoverability conditions. Compared to perfective auxiliaries, modal auxiliaries contribute stronger semantic content to the clause, hence are not that easily elided.[26] Moreover, as seen from the example, a

26. However, a search in spoken corpora of Norwegian actually revealed quite a few of the following ellipsis types, displaying a sentence-initial verbal infinitive:

modal is not unambiguously recoverable from the infinitive, since several underlying modal verbs are possible in this position. Perfective auxiliaries on the contrary are unambiguously retrievable.

Discourse ellipsis of copula verbs follows the pattern of perfective auxiliaries. Copula verbs are easily omitted under the structural conditions outlined here. This follows from the principle of recoverability: copula verbs are semantically light and

---

1. Sende bort litt vann? NoTa
   send over some water
   'Can you send over some water?'
2. Snakke litt om skolen eller? NoTa
   talk little about school-the or
   'Should we talk a little bit about school?'
3. Bli i Norge? Jeg digger Oslo jeg jeg har lyst til å bli i Oslo. NoTa
   stay in Norway I dig Oslo I I want to stay in Oslo
   'Will I stay in Norway? I really like Oslo, I want to stay in Oslo.'
4. Investere i lydisolasjon i hele leiligheten da. NoTa
   invest in sound isolation in whole apartment- the then
   'Invest in sound isolation for the whole apartment then.'
5. Dra på helgetur og gå tur i fjellet. NoTa
   go on weekend trip and walk in mountain
   'Go on weekend trips and go mountain hiking.'

Since infinitive verbs are generally triggered by modal auxiliaries, it is plausible that there is a silent modal auxiliary in front of the main verb in these examples. This appears to contradict the generalization that only perfective auxiliaries can be dropped since they are fully recoverable through the verbal participle. I will argue that with respect to semantic recoverability, modal auxiliaries are in an intermediate position between lexical verbs and perfective auxiliaries. They have certain semantic content, but this content is more restricted than that of lexical verbs. The class of modal verbs is more restricted than lexical verbs, so it is not unexpected that modals may be omitted in certain cases. Note that it is not possible to identify exactly which modal auxiliary has been elided in these examples. We can only conclude that it is some modal auxiliary requiring an infinitive main verb. Hence, it may be the general modality that is recoverable (and licenses ellipsis). The more specific semantics of each modal verb is not recoverable in the same way.

In order for ellipsis of a modal auxiliary to be licit, the context needs to be highly specific. Interestingly, (347), repeated below, which I categorized as illicit, is actually quite acceptable if the context is sufficiently prominent:

A: Hvilken skole vil/skal du gå på til høsten da?
   'To which school are you going next autumn?'
B: ?? ~~Jeg vil/skal~~ gå på Sofienberg skole.
   ?? ~~I will/shall~~ go to Sofienberg school

This pattern may appear to contradict my claims. In the framework I proposed, this is not unexpected. Recoverability correlates with context: an element is not categorically and incontrovertibly either recoverable or not. Rather, there are degrees of recoverability; if an element is sufficiently prominent, it may be elided. As we have seen, even lexical verbs can occasionally be dropped in cases where the elided verb is particularly discourse-prominent.

do not contribute anything to the semantic representation of the sentence, unlike modal auxiliaries and lexical verbs.

Are there cases where the lexical verb is semantically recoverable and can thus be silent? In theory this is indeed possible, but if the lexical verb is missing, the underlying syntactic structure of the clause is less recoverable. Without an overt main lexical verb, it is more difficult to identify the underlying constructional frame of the clause and to see which of the five alternative structural frames the sentence is an instance of. Yet, examples of elided main verbs are indeed attested if the context is appropriate, i.e. the verb is discourse-prominent. Then the verb is most often elided together with the subject:

(348) A: Har du spist noe?
'Have you eaten anything?'
B: ~~Jeg spiste~~ kjøttkaker til middag.
~~I ate~~ meat balls for dinner

In such cases, however, it is no longer obvious that the fragment is really an elliptical variant of a full-fledged sentence. It may be just as correct to interpret it as a non-sentential fragment, with the structural form of an NP. I return to this issue in Chapter 8.

7.4 Why is there a subject/object asymmetry in the C-domain?

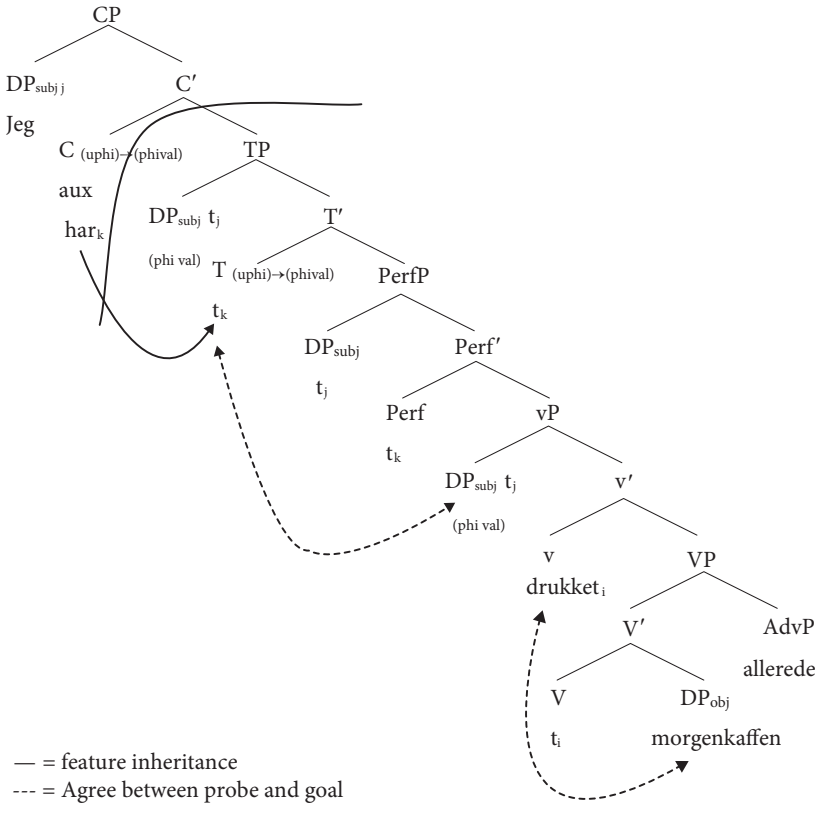
From the analyses presented, we can conclude that there is a restriction on discourse ellipses in the left periphery along the following lines: discourse ellipsis targets the top of the syntactic structure [SPEC,CP] and moves down. Only one chunk can be omitted at a time and that chunk must be comprised entirely of elements that are part of the same agreement relation. The general conclusion can be summed up in the principle *Silence Under Agree*:

> Silence under agree
>
> When all elements in the C-T complex are part of the same Agreement relation, then all these elements can be phonologically unrealized. If the constituent in [SPEC,CP] is not part of this agreement system, ellipsis of the whole domain is not possible. Ellipsis of only [SPEC,CP] is possible in any case, given that the semantic identity criteria are fulfilled.

More specifically, if the topicalized element is the same constituent as the one in [SPEC,TP], i.e. the subject, it is possible to omit the whole subject-verb complex. However, if the topicalized element is something other than the subject, it is only permissible to leave [SPEC,CP] unrealized; in this case, both the subject and the

verb must be phonologically instantiated. The general pattern is illustrated in (349), where the subject fills [SPEC,CP], and (350), with a fronted object:

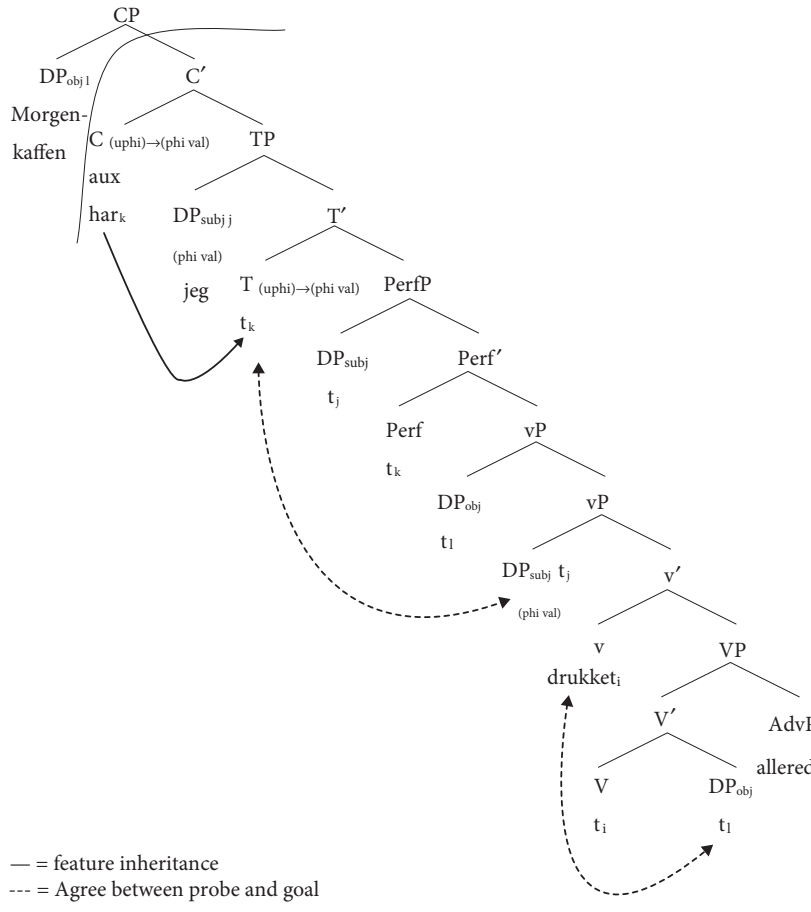
(349)



It is legitimate to ask *why* there would be such a difference between these two sentence types. After all, the underlying relation between the C projection and the T projection is the same independently of whether it is the subject or the object that is topicalized.

I propose that the key is in [SPEC,CP] or the element that moves into this position. As discussed, there is a fundamental distinction between the formal, potential agreement relation between C and [SPEC,CP] and the more substantial agreement relation which depends on the lexical elements that occupy these positions. If the subject fills [SPEC,CP] by movement, then it enters into an Agree relation with both T and C; [SPEC,CP] is then included in the same agreement relation as the remaining C-T domain. Consequently, the subject brings the relevant features along when it moves to [SPEC,CP] and this position becomes an extension of the agreement relation between the subject and the verb. Thus, the whole complex can more easily be deleted. TP is in a sense "extended" or doubled in CP.

(350)



When the object fills [SPEC,CP], the licensing pattern changes. The object belongs to a different agreement system. It gets its phi-features valued inside vP, where it agrees with little v. Thus, the element in [SPEC,CP] is not in the same agreement system as the other elements in the C-T complex, i.e., the subject and the object which are occupying the positions C, T and [SPEC,TP]. The topicalized object causes a disruption in the agreement chain, as a result, only this object can be uninstantiated. The subject and finite auxiliary must be phonologically realized because they belong to a different agreement (group) than the element in [SPEC,CP].[27]

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27. Note also that sentences of the following type are possible:

1. ~~Morgenkaffen har jeg~~ drukket allerede.

Here, the topicalized object, the finite auxiliary and the subject are all unrealized. This could be argued to be in line with the analysis outlined in this section. Two chunks are then omitted, both

The analysis proposed in this chapter relies on general properties of V2 and of the C-T connection. It would therefore be expected that the empirical patterns attested are the same in other V2 languages with topic drop. It is beyond the scope of this study to investigate this, but note that at least Swedish[28] appears to follow the same restrictions. Whether this pattern holds for other V2 languages is for further research.

Based the data presented in this chapter, we can conclude that it is possible to elide either the very first element–regular topic drop–or the first group of agreeing elements. When the subject occupies [SPEC,CP], the C-T complex becomes one related agreement group; consequently the whole complex can be null. A topicalized object is not part of this agreement group, hence the whole C-T complex cannot be null. It is not evident why the licensing of null elements should have anything to do with agreement. Yet, I argue that this is the case and the empirical data support this hypothesis.

The attested connection between discourse ellipsis and agreement is somewhat unexpected. Why is it that agreement affects silence in this way? We saw that elements in [SPEC,CP] are the first to be targeted by ellipsis. When they are contextually recoverable (e.g., topics), they are easily elided. It appears that this position is the initial trigger of discourse ellipsis. If [SPEC,CP] is not silent, any agreeing element in C cannot be either. But if [SPEC,CP] is silent, it can drag along an agreeing element in C. Hence, contextual recoverability comes first and since ellipsis begins from the top of the structure, [SPEC,CP] is frequently elided. Deletion from C requires agreement with this item in [SPEC,CP].

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the topicalized object and the agreeing subject and verb. Unfortunately, the fact that we cannot unambiguously determine the underlying structure of this discourse ellipsis affects this argument. It is not possible to know whether this is an ellipsis of a non-subject initial clause like in (1) or a subject-initial clause like in (2):

2. ~~Jeg har~~ drukket ~~morgenkaffen~~ allerede.

28. This has been checked with a Swedish informant. More work is clearly needed here.

CHAPTER 8

Concluding remarks

8.1 Empirical and theoretical contributions

This book provides both empirical and theoretical insights. Firstly, the set of data investigated here, namely spontaneous speech, has not been the subject of much previous research, especially within a generative framework. As discussed in Chapter 1, this choice of empirical base immediately raises foundational issues concerning the theoretical value of performance data, grammaticality versus acceptability, and the core-periphery distinction. In accounting for linguistic variation, the main focus is often on geographical differences between dialects and sociocultural differences associated with gender, age, etc. In this respect, the empirical focus of this study provides an additional axis, a distinction between written language and spontaneous speech. My main concern is the distinction between elliptical and non-elliptical language.

I argue for a new perspective on the relationship between fundamental components such as form, meaning, lexemes, semantics and context. I rejected the mainstream lexicalist, endoskeletal view of the Minimalist Program in favour of an exoskeletal, separationist perspective. Hence, rather than applying existing theory and analyses to a new set of data, I proposed a new theoretical model. This model seeks to integrate insights from neo-constructional approaches into generative Minimalist theory.

I stated that an overall goal of this study was to propose a grammar of discourse ellipsis in spontaneous speech and to specify the point in the linguistic process at which the constraints on discourse ellipses come to differ from the constraints on non-elliptical language. As for the first goal, I can now conclude that the grammar model I established accounts for discourse ellipses, but can also account for other registers and for non-elliptical language. As for the second goal, even though the general grammar model is not particular to elliptical speech, the licensing restrictions on possible ellipses are specific to this register. This is where the constraints become unique. The general theoretical model is thus not specific to discourse ellipses, but the licensing restrictions are.

A starting point for my proposed model was the selective semantics proposed of Bouchard and his principle of Full Identification, which have a clear precursor in Saussure's notion of the sign. For Saussure, the sign had two sides: form and content. In syntax, the form-content pair may translate into the relation between the syntactic representation and the realized string. Importantly, a sign-based model

of grammar predicts that there may be no content without form, which means no underlying representation without realized form/sound. However, the syntax of discourse ellipses shows that such sign-based models are insufficient. There are syntactic nodes with no instantiation. It is therefore necessary to develop an alternative to a sign-based model.

Any elided element must be semantically recoverable, unless it does not contribute semantically in the first place (as in the case of expletive subjects). Elements in the discourse-related C domain are more often elided than elements in other structural positions, but only topics–representing given information–can be omitted. Focussed elements are never subject to ellipsis. On a more general level, this phenomenon is also covered by recoverability since given information (topic) is easily recoverable, while new information (focus) is not.

There are also structural requirements that must be fulfilled if ellipsis is to be felicitous. Discourse ellipsis primarily occurs in the left periphery, in particular from [SPEC,CP], but occasionally also from C. Of course, both types are non-obligatory since non-elliptical sentences are the most frequent case.

In my analysis of ellipsis in the left periphery the whole C-T complex can be silent only when all the elements in this domain are part of the same agreement relation. If [SPEC,CP] is filled by a non-subject, this element is not part of this agreement group and ellipsis of the whole domain is not possible. Ellipsis of only [SPEC,CP] is always possible, given that the semantic identity criteria are fulfilled.

Hence, there are both semantic and structural criteria ellipses must meet. In some cases, the structural criterion (delete from the top and move downwards) is overruled when the element in question is highly discourse-prominent. It then appears that semantic recoverability is a more influential restriction than the structural conditions. This is how we explained occurrences of medial ellipses. Yet, there are also ellipses that are semantically acceptable but structurally impermissible. In this case, the structural condition overrules recoverability. It thus appears that neither requirement is more decisive than the other. Instead, discourse ellipses are governed by interacting semantic and structural restrictions.

At a general level, the relation between structure and context was a central issue of this study. I argue that elements can be deleted if they are semantically recoverable. Yet, crucially, the deletion does not involve the structure, only the instantiation of it; thus, contextual information does not affect syntactic structure, only the realization of this structure.

The grammar of discourse ellipses can be seen as a kind of contextual adaptation. Ellipsis is only possible in the right context. The apparently fragmentary character of these strings may lead to the impression that syntax is partly destroyed and that context has a strong direct impact on grammar, leading to a flexibility of the syntactic expression. However, the analysis outlined here shows that on the contrary, narrow syntax is not affected. The underlying structure stays intact, as

the licensing restrictions concern only the level of phonological realization, not the underlying structure. Hence, the grammar of discourse ellipses is best characterized as an interface phenomenon. It governs the interplay between structural and semantic restrictions on instantiation, but only on the level of instantiation. The apparent destruction or flexibility of syntax is thus refuted.

8.2 Prospects

The theoretical model I proposed explains discourse ellipses. Apart from further theoretical development of the model itself, there are topics that were not discussed and that should be investigated further.

Firstly, the analysis proposed takes spoken data as an empirical source. The language of social media such as Facebook and Twitter, text messages and even e-mails is often claimed to exhibit oral traits. It would be interesting to investigate whether the restrictions on possible ellipsis types are the same in these registers, and if not, what the differences are. Secondly, I focus primarily on syntactic and semantic restrictions, but it is not unlikely that intonational patterns also have an impact on the licensing and interpretation of discourse ellipses. Moreover, I limited my empirical focus to declarative main clauses. However, it appears that discourse ellipses in *wh*-questions are actually quite frequent:

(351) ~~Hva~~ skjer da?
~~what~~ happens then
'What's up?'

(352) ~~Hva~~ er det du driver med?
~~what~~ is it you do with
'What are you doing?'

(353) ~~Hva~~ holder du på med, egentlig?
~~What~~ hold you on with really
'What are you doing, really?'

(354) ~~Hvor~~ mange er klokka?
~~how~~ much is clock-the
'What time is it?'

(355) ~~Hvor~~ mange skiver vil du ha til frokost?
~~how~~ many slices of bread want you for breakfast
'How many slices of bread do you want for breakfast?'

(356) ~~Hvor~~ stort er det nye huset deres, da?
~~how~~ big is the new house yours then
'How big is your new house, then?'

It appears that both *wh*-phrases (*hva* 'what') and parts of *wh*-phrases (*hvor* 'how') can be omitted. Interestingly, there seems to be a distinction between different *wh*-elements when it comes to possible ellipsis. Whereas the ellipses in (351)–(356) are perfectly acceptable, the examples in (357)–(359), involving omission of *hvorfor* 'why', *hvordan* 'how' and *hvilken* 'which', are not:

(357) *~~Hvorfor~~ gjorde du det?
~~why~~ did you it
'Why did you do it?'

(358) *~~Hvordan~~ lager man spaghetti carbonara?
~~how~~ makes one spaghetti carbonara
'How do you make spaghetti carbonara?'

(359) *~~Hvilken~~ bok leser du nå?
~~which~~ book read you now
'Which book are you reading now?'

One can point to the recoverability condition: the *wh*-elements in (351)–(356) are more easily identified than the ones in (357)–(359). This is also supported by the example in (360), which shows that the ellipsis in (357) becomes acceptable if the *wh*-element is 'split' in two parts, and only the first part is elided:

(360) ~~Hva~~ gjorde du det for?
~~what~~ did you that for
'Why did you do that?'

The *wh*-elements in (357)–(359) are parallel to adverbials in declarative sentences and those in (351)–(356) are parallel to DPs. Hence, the pattern is not unexpected. In declarative sentences, DPs are more frequently omitted than adverbial constituents even when all structural and semantic restrictions are obeyed. Still, a more thorough investigation of discourse ellipses in *wh*-clauses, examining both structural and semantic restrictions, and exploring the empirical nuances in more detail, would be desirable.[1]

1. One fact that is somewhat surprising, and which would require further investigation, is the fact that whereas the typical left-edge ellipses discussed in this book is perfectly acceptable in other V2-languages such as German and Dutch, the wh-ellipses in (1)–(3) are completely out in these languages. Given that Norwegian is distinctly different as to how it handles wh-ellipses,m which are otherwise structurally the same as the other elliptical structures presented with respect to the role of [SPEC,CP], it appears likely that there is more to left-edge ellipsis in Norwegian than the licensing conditions proposed in this book. I will however not propose an analysis for this, but rather leave it for further investigation.

Finally, I wish to draw attention to a set of data related to discourse ellipsis that I believe belongs to a different group of constructions, structurally speaking. I argued for full sentence structures in discourse ellipses, due to instantiation of connectivity effects. I also argued that constituents may be deleted sentence-initially, if they are semantically recoverable. We examined cases of dropped arguments, adverbials, and finite auxiliaries. But is it possible to delete a lexical verb if it is sufficiently familiar and prominent in the discourse? It seems probable that this is the case, and indeed, it appears to be borne out:

(361) A: Hvor reiser Alf på sommerferie?
where travels Alf on summer holiday
'Where does Alf go for his summer holiday?'
B: ~~Han reiser~~ til London.
~~he travels~~ to London
'He goes to London.'

How can we know that this is really a case of ellipsis? There are no structural cues to unambiguously tell us that this is a sentence. The underlying syntactic frame is not possible to identify. The same issue is illustrated in (362) and (363):

(362) A: Vi tenkte vi skulle prøve det derre det er et reisebyrå som heter Nazar.
'We thought we should try that (…) travelling agency called Nazar.'
B: a. ~~Det~~ har jeg sett i katalogen ja.
~~it~~ have I seen in the catalogue yes
b. *Det ~~har~~ jeg sett i katalogen ja.
it ~~have~~ I seen in the catalogue yes
c. *~~Det har~~ jeg sett i katalogen ja.
~~it have~~ I seen in the catalogue yes
'Yes, I have seen that in the catalogue.'

(363) A: Ja du skal ha fri på lørdagen du.
'Yes, you are having the Saturday off.'
B: Mm
A: a. ~~Det~~ skal ikke jeg.
~~it~~ shall not I
b. *Det ~~skal~~ ikke jeg.
it ~~shall~~ not I
c. ~~Det skal~~ ikke jeg
~~it shall~~ not I
'I am not.'

Why is there is a difference in grammaticality when it comes to the third alternative ellipsis for these cases? In both (362) and (363), it is possible to drop the topicalized object, but impossible to drop only the auxiliary when the topicalized object is realized. However, in (362), it is impossible to drop the object and the auxiliary together, even though this appears to be possible in (363). This may seems to be apparent counterevidence to the analysis proposed in Chapter 4. Notice, however, that it is not obvious that (363) is a case of discourse ellipsis. The structural sentence frame is not as easily identified in (363) as it is in (362); we could thus say that this is a case of constituent negation and not an underlying full-fledged sentence. This assumption would explain the discrepancy in acceptability between the two cases.

The examples in (361)–(363) thus represent borderline cases: we are not sure if they are structural sentences or not. Such non-sentential fragments are highly frequent in spontaneous spoken language:

(364) God kaffe!
'Good coffee!'

(364) Strålende vær!
'Magnificent weather!'

Obviously, these ellipses express full-fledged propositions, semantically speaking. Whether or not these have underlying full sentence structures is an open question. The literature is split on this issue. I would be inclined to opt for a non-sentential analysis of such examples and argue that these are full-fledged propositions, but not full sentence structures.[2] In discourse ellipses, the structural frame is easily recoverable, which is not the case in these free-standing phrases. In both cases, a full proposition is expressed, and in both cases, certain elements that are part of this proposition are not phonologically realized. Yet, whereas the silent elements are present in the sentence structure in the case of discourse ellipses, in the case of free-standing phrases they are only present in the non-sentential level of meaning. The distinction corresponds to Bouchard's (1995) division between G-SEMANTIC and S-SEMANTIC meaning. We may thus conclude that the semantic enrichment of the fragmented strings occurs in a different tier of the derivation. Without a division between these different tiers, the distinction would not be possible to state.

To distinguish between free-standing phrases and sentential discourse ellipses, we also depend on the theoretical possibility of assuming richer syntactic structure than what can be directly motivated from instantiated lexical items. The distinction

2. For a more in-depth discussion of this issue and a presentation of arguments for each standpoint, see Stanley (2000), Carston (2002), Elugardo & Stainton (2005), Progovac et al. (2006) and Stainton (2006).

is impossible to state in model that adopts a strong interpretation of Bouchard's principle of Full Identification.

These data clearly show the importance of correctly identifying the dividing lines between derivational layers or tiers in the model of analysis. Is there only one kind of semantics or is the picture more fine-grained? Is there more syntax than what meets the eye/ear? What does the syntax contain and what motivates it? How should lexical items be characterized and how do they interact with syntactic structure? In cases of ellipsis, what is it that has disappeared? What governs the non-realizing of elements? Discussing these types of questions has been a main concern of this book.

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Appendix

In the running text, when corpus examples are cited, they are presented without any surrounding linguistic context. This is mostly due to limitations of space. However, in many cases it may be desirable to see the surrounding context of the example. This is the motivation for adding this appendix. For each example, the discourse ellipsis which is cited in the running text is highlighted in bold letters. I have translated (in italics), but not glossed, the surrounding linguistic context for each example. The relevant ellipsis examples are glossed in the running text. Moreover, note that the transcription of the examples is nearly equal to the transcription found in the corpus. Yet, in certain cases I have simplified some details of the transcriptions, but of course, not without being certain that no meaning would be lost. The reader who wishes to look up an example in the corpus himself, may of course do that:

For the Norwegian Speech Corpus (NoTa): http://www.tekstlab.uio.no/nota/oslo/
For the Nordic dialect corpus(NDC): http://www.tekstlab.uio.no/nota/scandiasyn/index.html

Chapter 1

Example 1 NoTa

A: Men husker du noe særlig fra det året?
B: Ja ja, det husker jeg ganske mye, jeg var jo tross alt åtte. **Husker litt fra jeg var åtte.**
A: Ja, det er jo ikke så lenge siden.

A: But can you really remember anything from that year?
B: Yes, yes, I remember quite a lot from it, I was eight after all. ***(I) remember a little bit from the time I was eight.***
A: Yes, it is not such a long time ago.

Example 2 NoTa

A: En gang jeg var på vei til basketballtrening så var det en som hadde kjørt over en sånn kjempeliten rev.
B: Oi.
A: **Var en som hadde kjørt forb- over en rev**, og så sto det masse folk der og sånn så sa de at'n var død.

A: One time when I was going to a basket ball training, someone had hit this really tiny fox by car.
B: Wow.
A: ***(There) was one who had passed… hit a fox****, and then a lot of people stood there and said that he was dead.*

Example 3 NoTa

A: Jeg gleder meg til å ha fri i helga jeg.
B: **Skal jeg òg**. Ja du skal ha fri på lørdagen du.
A: Mm.
B: Skal ikke jeg.
A: Det gleder jeg meg til altså.

A: I am looking forward to having some time off during the weekend.
*B: **I am going to do (that), too.** Yes, you are having the Saturday off.*
A: Mm.
B: I am not.
A: I am really looking forward to it, you know.

Example 4 NoTa

A: Hvordan er den i forhold til den boligen der du vokste opp?
B: Nei, den er helt helt forskjellig ja. Mm, veldig forskjellig. **Vokst opp i et stort stort hus** med tre etasjer og mange rom i hver etasje og store rom, god plass.
A: How is it compared to the house where you grew up?
*B: No, well, it is completely different. Mm, very different. **(I have) grown up in a big, big house** with three floors and many rooms on each floor, and large rooms, a lot of space.*

Example 14

A: Jeg har ikke sett på kino særlig i det siste faktisk.
B: Nei, jeg…
B: **Driver og prøver å komme på når jeg sist var på kino.** Det må være et år siden.
A: Actually, I haven't been to often the cinema lately.
B: No, I…
*B: **I) am trying to figure out when was the last time I went to the cinema.***
(I)

Example 27

See Example 1, Chapter 1.

Example 28

See Example 2, Chapter 1.

Example 29

See Example 3, Chapter 1.

Example 30

See Example 4, Chapter 1.

Example 31 NoTa

A: Jeg tror jeg fikk ganske bra på den første prøven vi hadde i førsteklasse, men det måtte jeg få for jeg var liksom ikke helt stjerneeleven i gym tror jeg.
B: **Kan tenke meg det.**
A: I think I did quite well on the first test we had in first grade, but I really had to, because I was not really like the star student in gym, I think.
*B: **(I) can imagine that.***

Example 33 NDC

A: **Kjørt mye skuter i påska?**
B: Hvem, jeg?
A: Mm.
B: Ja, veldig mye.
A: ***(Have you) been driving scooter a lot during Easter?***
B: *Who, me?*
A: *Mm.*
B: *Yes, a lot.*

Example 35 NoTa

A: Under spørsmålsrunden så var det jo et eller annet om UEFA-cupen her for et par dager siden.
B: Hvilken spørsmålsrunde?
A: Den vi alltid har på jobben.
B: Og da fikk du jo sett hvor mye jeg følger med i Champions League og UEFA-cupen.
A: Ja, ja, riktig.
B: **Gikk ikke så veldig bra.**
A: *During the question round there was something about the UEFA cup a couple of days ago.*
B: *What question round?*
A: *The one we always have at work.*
B: *And then you got to see how updated I am when it comes to Champions League and the UEFA cup.*
A: *Yes, right.*
B: ***(It) didn't go very well.***

Example 36 NoTa

A: Når du kommer ned fra huset her, og så går man opp på en sånn topp. Der oppe tror jeg vi har begravet sånn sju, åtte døde dyr.
B: **Må vel ha katter**, som kommer hjem med det hele tiden.
A: Ja, sånn rotter og…
A: *When you come down from the house, then you go up on this hilltop. Up there I believe we have buried seven or eight dead animals.*
B: ***(You) need to have cats, probably****, who come home with this all the time.*
A: *Yes, rats and…*

Example 37 NoTa

A: Herregud, nei da, det var en lættis tur altså. Men vi må faen meg få tak i de hyttene igjen.
B: Ja jeg veit det.
A: **Dratt på hyttetur igjen**. Det var så ålreit det.
A: *Oh my god, no, that trip was so much fun. But we really need to get hold of those cabins again.*
B: *Yes, I know.*
A: ***(We should have) gone to the cabin again.*** *That was really so nice.*

Example 45 NoTa

A: Jeg har en kompis, en jeg kjenner da, en kompis av broren min, han tok med seg slange han, fra Bangladesh eller noe sånt noe. **Tok med seg sånn albinopytonslange**, altså sånn kvelerslange.

A: I have this friend, a guy I know, a friend of my brother, he brought a snake, from Bangladesh or something. ***(He) brought such an albino pyton snake****, a constrictor.*

Example 46 NoTa

A: Men vi skulle spille mot de gamle damene.

B: Ja, det, hvis vi avtaler med de så kan vi bare dra på trening en gang.

A: Det hadde vært gøy. Vi slår de sikkert, eller tenk om vi ikke gjør det da.

B: Men da må vi ha en dommer for de gjør… jeg har sett på dem en gang og de gjør så mye feil. Så hvis det hadde vært skikkelig, det hadde lønt seg for oss om vi hadde en dommer for de tar skritt og sånn hele tiden. Så da kunne vi tjent masse på det.

A: **Hadde vært gøy** å spille mot de damene.

A: But we should play against the old ladies.

B: Yes, that, if we talk to them, we can just show up at their training session.

A: That would be fun. We will probably beat them, or what if we don't.

B: But then we need a referee because they do… I have watched then once and they make a lot of mistakes. So if it should be for real, it would be best for us if we had a referee, because they take too many steps and stuff all the time. So, then we could benefit a lot from that.

A: ***(It) would have been fun*** *to play against those ladies.*

Example 47 NoTa

A: Har du sittet på med X?

B: Nei.

A: Du har ikke, shit altså.

B: **Klarer jeg ikke, altså**.

A: Jeg følte meg ikke trygg altså.

A: Have you been driving with X?

B: No.

A: You haven't. Shit.

B: (That), I just cannot handle.

A: I didn't feel safe, you know.

Chapter 2

Example 1 NoTa

A: Jeg bor i et kollektiv nå med to andre mennesker, en helt vanlig fireromsleilighet i andre etasje.

B: Som dere deler bad og…

A: Vi har felles stue og bad og kjøkken, så jeg har relativt god plass egentlig, for oss tre. Og en hund har vi fått, det fikk vi i juni. **Fikk ny leieboer med hund.**

A: I live in a commune now with two other people, a quite ordinary four room apartment on the second floor.
B: Which you share a bathroom and…
A: We share the living room and bathroom and kitchen, so I have quite a lot of space, really, for the three of us. And we got a dog, we got it in June. ***(We) got a new tenant with a dog.***

Example 81 NoTa

A: Jeg tror maskinen krevde å bli omstarta fordi de hadde installert et eller annet.
B: Mm.
A: Altså den har jo vært slått av mens jeg har vært borte, så… de hadde installert et eller annet. **Sto et eller annet om "rebooting" og sånn på skjermen**, så jeg får vel omstarte når jeg kommer tilbake.
A: I think the machine demanded to be restarted because they had installed something.
B: Mm.
A: Well, it has been switched off when I was away, so… they had installed something. ***(It) said something about "rebooting" and stuff on the screen,*** *so I guess I will restart it when I get back.*

Example 82 NoTa

A: Kan du huske noe spesielt ifra barneskolen?
B: Noe jeg har gjort?
A: Ja, eller en spesiell historie, eller…
B: Nei, egentlig ikke. **Vært i masse slåsskamper på barneskolen.**
A: Do you remember anything in particular from primary school?
B: Something I did?
A: Yes, or a special story, or…
B: No, not really. ***(I have) been in lots of fights when I went to primary school.***

Example 83 NDC

A: Det med musikk, har du lyst til å fortsette med musikk videre når du blir … når du flytter, for eksempel?
B: **Vært litt artig å holde på med musikk sånn**, laga sin egen sang eller sånt.
A: So, about music, do you want to continue playing music when you become … when you move, for example?
B: ***(It would have) been quite fun to work with music,****make my own song or something.*

Example 84 NDC

A: Da skal jeg bare først spørre deg om noe. Hvor du er født og oppvokst hen?
B: Ja. **Født i Tromsø og oppvokst her.**
A: Well, then, I will first just as you something. Where are you born and raised?
B. Yes. ***(I am) born and raised in Tromsø and grown up here.***

Example 85 NoTa

A: Kan bli litt snevert så det er greit å kanskje stikke et par ganger på Grünerløkka i løpet av året, hvis man skal ut på byen.
B: Er det forskjell på klientellet?
A: **Svært stor forskjell på klientellet**, tror jeg altså.

A: Can be sort of limited, so it may be nice to pop by Grünerløkka during the year, if you are going out.
B: Are there differences in the clientele?
*A: **(There are) very large differences in the clientele,** I believe.*

Example 86 NoTa

A: Så kommer de og så bare "ja da gjør dere dette her ti ganger". Vi bare "ti"? Gjør det du da! Nei, nei, jeg er læreren jeg. Så løper dere fram og tilbake her og så klatrer litt her. Hallo, liksom.
B: Så koser han seg med kaffen sin.
A: Ja, ikke sant. **Setter dem seg der og drikker kaffe mens dem liksom setter på karakterene til oss.**
A: Then they just come and then "well, then you must do this ten times". And we: "ten?". Do it yourself! No, no, I'm the teacher. Then you run a little back and forth, and then climb a little bit here. I mean, hello!
B: Then he really enjoys his coffee,
*A: Yes, right! **(Then they) sit down and drink coffee while they like decide our grades.***

Chapter 4

Example 4 NoTa

A: Jeg fant tyggispapir i skolegården, og det var ikke lov å tygge tyggis så det meldte jeg fra til rektor. Så jeg skulle være hverdagshelten på skolen. **Hadde ikke så veldig mye venner egentlig**. Hadde sånn to rare høye jenter, jeg var bitteliten.
*A: I found chewing gum paper in the school yard, and we weren't allowed to chew chewing gum, so I reported it to the principal. So, I wanted to be the everyday hero at school. **(I) did not have all that many friends, really.** Had these two strange, tall girls, I was really tiny.*

Example 11

See Example 45, Chapter 1

Example 12 NDC

A: Du skal gå?
B: Jeg skal gå på XX kanskje. Media og kommunikasjon, tror jeg. Det blir bra. Nei, jeg vet ikke. Vi får se.
A: **Trenger ikke å bestemme seg enda.**
B: Nei, det er jo ennå ei stund.
A: You are going?
B: I may be going to XX. Media and communication, I think. That will be fine. No, I don't know.
*A: **(One) doesn't need to decide yet.***
B: No, we still have a while.

Example 13 NoTa

A: Hva fikk hun i bed.øk.?
B: Husker ikke, men hun strøk i pristeori tror jeg.
A: Hæ, kan hun stryke og fortsatt reise?

B: **Det var tjuefem som søkte og det var tjuefem plasser, så sier seg selv.**
A: Which grade did she get in business administration?
B: Don't remember, but she failed in price theory, I think.
A: What, she can fail and still go?
*B: **There were twenty-five applicants and twenty-five positions, so (it) is quite obvious.***

Example 58 NoTa

A: Det var like før jeg gikk i strupen på personen altså.
B: Jeg tror ikke det er så lurt.
A: Nei, er kanskje ikke det. Men de er ganske sære altså.
B: **Funker litt dårlig**.
A: I was so close to attacking this person physically.
B: I don't think that is such a good idea.
B: No, maybe not. But they are really quite odd, you know.
*A: **(It) works quite badly.***

Example 63 NoTa

A: Jeg skjønner ikke de som er redde for å dra til Moskva.
B: Nei det kan jeg være enig i.
A: **Bekymrer meg ikke jeg liksom**. Det flyet der kan styrte som alle andre fly på en måte.
A: I don't understand those who are scared of going to Moscow.
B: No, I can agree with you on that.
*A: **(I) don't worry, I don't.** That plane can sort of fall down just like any other plane.*

Example 67

See Example 1, Chapter 1.

Example 68–73

See Examples 81–86, Chapter 2.

Example 78 NoTa

A: Lærte meg fransk, jeg kunne ikke noe fransk når jeg dro ned.
B: Det er ikke så dumt.
A: Bodd et år i Mexico. **Bodd et år i London.**
A: Learned French. I didn't know any French when I went down there.
B: It's not a bad idea.
*A: Lived one year in Mexico. **(I have) lived one year in London.***

Example 79 NoTa

A: Det er vel mynta mye på turisme der òg regner jeg med.
B: Ja, vi tenkte vi skulle prøve det derre det er et reisebyrå som heter Nazar. Annonserer en del.
A: **Har jeg sett i katalogen ja.**
A: The target is probably tourism there as well, I reckon.
B: Yes, we thought we would try that, there is a travel agency called Nazar. Have been advertising quite a lot.
A: Yes, I have seen (it) in the brochure.

Example 86 NDC

See Example 33, Chapter 1.

Example 87 NoTa

A: Vi skal begynne å snakke om hvor du er født og oppvokst hen da.
B: Ja, jeg er født og oppvokst i Oslo. På Stovner. **Bodd der hele livet egentlig**.
A: We will start by talking about where you are born and raised.
B: Yes, I am born and raised in Oslo. At Stovner. ***(I have) lived there for all my life, really.***

Example 88 NoTa

A: Ja, det er liksom første jeg gjør også det er å sette på kaffen og smøre brødskiva mi og så går jeg inn og setter meg og så **noen ganger har jeg noe å lese på, andre ganger setter meg og strikker litt**, kanskje jeg ser på tv. Kommer litt an på, men det (er) sjelden jeg setter på tv på morgenen.
A: Yes, that is sort of the first thing I do too, make coffee and butter my toast and then I go and sit down and then ***sometimes I have something to read, other times (I) sit down and knit a little bit,*** *maybe I watch tv. Depends, but I rarely watch tv in the morning.*

Example 96 NoTa

A: Ender er skikkelig fine.
B: Ja, de er veldig fine. Vi har ofte hatt ender inne hos oss. Siden når de kommer opp fra stranda så går de helt inn. **Husker jeg var så gøy når jeg var liten.**
A: Ducks are really nice.
B: Yes, they are really nice. We have often had ducks at our house. Since when they come from the beach, they go all the way into the house. ***I remember (that) was so much fun when I was little.***

Example 97 NoTa

A: Det hadde vært sånn byggeplass der, som sagt under en sånn sklie så lagde vi, tok vi med vann og så lagde vi isoporsuppe. Og så spiste vi det. Men det var veldig hyggelig, hadde mange fine minner fra det.
B: Ja, det hørtes ikke spesielt sunt og næringsrikt ut med isopor da.
A: **Fikk jo litt næringsrik mat hjemme da**, så spiste vi isopor på førskolen.
A: It had been a construction site there, like I said under this slide we made, we brought water and made a soup out of polystyrene. And then we ate it. But it was very nice, I had many nice memories from that.
B: Yes, well polystyrene, that does not sound very healthy and nutritious.
A: ***(I) got some nutritious food at home, you know*** *and then we ate polystyrene at preschool.*

Example 98 NoTa

A: Altså jeg tror kanskje Hasle skole vil være en grei skole å gå på, for det at det vil være veldig, ganske altså, veldig blanda på en måte altså.
B: **Skulle tro det.**
A: *Well, I think that Hasle may be an ok school to go to, because it would be very, or sort of, very mixed.*
B: ***(One) should think so.***

Example 99 NoTa

A: Jeg tror kanskje at jeg har vært liksom litt for intellektuell, jeg. Slik at jeg har skremt dem istedenfor. Jeg tror det.
B: Ja, istedenfor å …
A: Jeg tror det ja.
B: Ja, jeg tror det ja.
A: Men de som er med i den gruppen, de har grepet det.
B: **Tror jeg også ja.**
A: I think that maybe I have been too much of an intellectual. So I may have scared them off instead. I think so.
B: Yes, instead of…
A: I think so, yes.
B: Yes, I think so.
A: But the ones who are in the group, they have understood it.
B: ***I think so, too.***

Example 101 NoTa

A: Det er verre for dem som skal begynne å kjøpe òg da, som skal inn på boligmarkedet nå stakkars.
B: Ja, det er første gangen du går inn det er da det er verst, siden så får du liksom dra fordelen med deg av det du har. Det er tøft å starte på bånn.
A: **Må nesten bare kaste deg i det**, hvis du har muligheten.
A: It is worse for those who are planning to buy, and who are entering the housing market. Poor guys.
B: Yes, the first time you go in, that's when it is worst, later you kind of get the benefit of what you already have. It is just hard to start at the bottom.
A: ***(You) just have to throw yourself in,*** *if you have the opportunity.*

Example 102 NDC

A: **Jeg liker at maten smaker litt spesielt. Er ikke så veldig glad i sånn vanlig norsk mat egentlig.** Synes jeg er litt kjedelig.
A: ***I like that the food tastes a bit different. (I) am not really that font of regular Norwegian food.*** *I think (it) is a bit boring.*

Example 103a

See Example 79, Chapter 4.

Example 103b NoTa

A: Jeg har vært mye i Frankrike. Jeg har studert i Frankrike, jeg.
B: Ja, det har du ja.
A: Stemmer det. **Feriert i Frankrike**, snakker fransk.
A: I have been a lot in France. I did my studies in France.
B: Yes, you did.
A: Right. ***(I have) spent my holidays in France,*** *(I) speak French.*

Example 103c NDC

A: Det blir vel sånn ja, du sykler. Gjør du det mye?
B: Ja, stort sett til og fra fotballbanen eller på turer. Holde meg i form. **Trener opp kondis til fotballsesongen.**
A: That's how it is like, yes, you are riding a bike. Do you do that a lot?
B: Yes, mostly to the football field or when going on trips. Keep in shape. ***(I) am exercising to improve my condition before the football season.***

Example 108 NoTa

A: **Skal du til helgen da?**
B: Hva jeg skal til helgen? Jeg tror jeg skal ut en av dagene, men ikke begge.
A: ***(What) are you doing this weekend?***
B: What I am doing this weekend? I think I am going out one of the days, but not both.

Example 109 NoTa

A: Så har de åpnet restaurant midt i frosken da. Da jeg var der så, det var på søndag og da regnet og regnet og regnet det.
B: **Mye folk?**
A: Ja, det var mye folk men helt tomt på restauranten.
A: They have opened a restaurant in the middle of the frog. When I was there, it was Sunday and then it rained and rained and rained.
B: ***(Were there) a lot of people?***
A: Yes, there were lots of people, but totally empty in the restaurant.

Example 110 NoTa

A: Åssen var det å være barn der som du bodde?
B: Nei, det er veldig bra. Det er et ganske lite sted. Mer eller mindre alle kjenner alle, og da, så det blir et relativt godt miljø. Men når man blir en sånn femten, seksten, sytten år så blir kanskje stedet litt lite.
A: Litt kjedelig?
B: Litt kjedelig ja. **Litt dårlig tilbud til den aldersgruppen.**
A: How was it to be a child where you lived?
B: No, it is very nice. It is a quite small place. More or less everybody knows everybody, and so, the social environment is quite good. But when you turn like fifteen, sixteen, seventeen years, the place may become a bit small.
A: A bit boring?
B: A bit boring yes. ***(There is) quite poor service for that age group.***

Example 111 NoTa

A: Jeg tror sytti prosent av klassen min på barneskolen bodde i en omkrets på fem minutter maks. Så da var det alltid ut i gatene og leke «boksen går» og «politi og tyv» og sånne ting.
B: Det var lett å samle alle.
A: **Veldig lett å samle alle**. Det var bare å løpe ute og banke på naboene.
A: I believe that seventy per cent of my class lived within a circuit of five minutes, at most. So we always went out in the streets to play "hit the box" and "police and thief" and things like that.
B: It was easy to gather everyone.
A: ***(It is) very easy to gather everyone.*** *We only had to run around and knock at the neighbors' doors.*

Example 112

See Example 85, Chapter 2.

Example 113 NoTa

A: Vil du vurdere det hvis du nå skulle få deg familie?
B: Har ikke tenkt så langt, jeg vet ikke nei. **Vanskelig å si.**
A: Will you consider it if you were going to have a family?
B: Haven't thought so far, I don't know. ***(It is) difficult to say.***

Example 118 NoTa

A: **Fint å bo i gården her?**
B: Ja, flott.
A: Pen, pen leilighet og jeg fikk det da kona døde i 2002.
A: ***(Is it) nice to live here in the building?***
B: Yes, very nice.
A: Pretty, pretty apartment, and I got it after my wife died in 2002.

Example 119 NoTa

A: Ja, vet du det er sånn å dra på. Det er bare… kommer lyder. **Kommer lyder hele tiden.**
B: Jeg tror det er jeg tror ikke… Jeg tror det er noe annet.
A: Yes, you know, you have to pull it. It just, there comes sounds. ***(There) are noioses constantly.***
B: I think it is, I don't think… I think it is something else.

Example 126 NoTa

A: Hvis man kan kalle det religion da.
B: Ja, det var jo sånn nypaganisme eller hva det heter da. Men det var jo, jeg syns det hørtes ålreit ut jeg.
A: Ja, det er kjempeålreit å grave opp lik.
B: Ja, men det var jo ikke, det er jo sånn misforstått greie. Men det var sånn derre…
A: Men det er ikke sant, det er nye Norge, det er sånn…
B: **Skal liksom være glad i familien din** og ikke bry deg om de andre og sånn…
A: Well, if you can call that a religion.
B: Yes, it was some kind of neo-paganism or something. But it was, I think it seemed all right.
A: Yes, it is very all right to dig up bodies.
B: Yes, but it wasn't, it is such a misunderstood thing. But it was like…
A: But it isn't true, it is the new Norway, it is like…
B: ***(You) are kind of supposed to love your family*** *and not to care about others and…*

Example 127 NoTa

A: Han er jo, så for det første er han jo veldig kjekk mann, og nå med slips og skjorte, for før gikk han alltid i genser. Har sikkert fått påpakk.
B: Kan jeg ikke… **Kan jeg ikke erindre** og det enda jeg, jeg som er så pinlig pirkete nøye.
A: He is, well firstly he is a very handsome man, and now with a shirt and a tie, because before he always wore a sweater. He has probably been reprimanded.
B: I cannot… ***(That), I cannot recall,*** *even if I am so strictly proper.*

Example 128 NoTa

A: Har du lyst til å reise noe andre steder?
B: Jeg har lyst til å reise overalt jeg. **Lyst til å reise til Italia** og så har jeg lyst til å reise til Australia.
A: Do you want to go somewhere else?
B: I want to travel everywhere. ***(I) want to go to Italy,*** *and then I want to go to Australia.*

Example 129 **NDC**

A: Er det noen forskjell på Voss nå og før, annet enn at det er mindre snø?
B: Ja, nei det er nå, det er blitt mer urbant kan du si. Det er nå blitt mer byprega. **Blitt større sentrum** og stadig bygget ut her, så det var nok mer en landsby før enn hva det er nå.
A: Are there any differences between Voss now and before, other than the fact that there is less snow?
B: Yes, no, it has sort of become more urban, so to speak. It has become more city-like. ***The centre has grown*** *and there is constant building here, so it was probably more of a village before, compared to now.*

Example 151 NoTa

A: Vi var jo inne i en av disse herre pyramidene. Folk som jeg reiste sammen med klarte å snike med seg kamera ned og hele pakka så…
B: Får du ikke lov til å ta bilder?
A: Nei, det er ikke lov, på grunn av den blitsen.
B: **Fløy vi rundt og tok bilder da så kom det en vakt.**
A: We were inside one of these pyramides. The people I was travelling with, managed to sneak in a camera and everything.
B: You weren't allowed to take photographs?
A: No, it is not allowed, because of the flash.
B: ***(We) flew around and took photos, then a guard came.***

Example 152 NoTa

A: Jeg skulle ønske jeg så bare halve filmen når han bare hadde det konge. Så går alt til helvete.
B: Ja, så ikke siste halvdelen, da alt går til helvete med kona og…
A: Men sånn er det med masse sånne filmer og med alle bøker syns jeg. **Syns jeg man bare skulle lese halve boken**, og så er alt konge.
A: I wish I only saw the half of the movie when he was doing really well. Then all goes to hell.
B: Yes, didn't see the last half, when everything goes to hell with the wife and…
A: But that is how it is with many of those movies and with all books, I think. ***(I) think one should only read half the book,*** *then everything is super.*

Example 153 NoTa

A: For far skulle på det møtet og jeg bare, før han gikk så var det sånn "ja er det noe jeg må vite som jeg kan få vite?" Men de bare "nei, nei, ingenting". Og han bare "ja, er du helt sikker?" "Ja, ja, ja," Men han bare "jeg orker ikke å få noen konfrontasjoner", og jeg bare "nei, ikke noe farlig". **Sitter jeg hjemme og venter på at han skal komme hjem så bare «ja, nei, hva gjorde du på den lørdagen? "**
A: Dad was going to that meeting and I just, before he left it was like "well, is there anything I should know that you will tell me?" But they just "no, nothing". And he just "are you sure?" "Yes, yes, yes! But he just "I don't want to get into an argument" and I just "no, no worries". ***(So I) sit at home and wait for him to come home, and then "yes, no… what did you do that Saturday?"***

Example 168 NoTa

A: Feriert i Frankrike, snakker fransk. Ja, eller studert i Frankrike, det var det året jeg tok seks og tjue studiepoeng.
B: Ingenting? Å ja, nei, du tok noe ja.
A: Lærte meg fransk da, jeg kunne ikke noe fransk når jeg dro ned.
B: Det er ikke så dumt.
A: **Bodd et år i Mexico.**
A: Been on holiday in France, speak French. Yes, I have studied in France, it was the year when I took 26 educational points.
B: Nothing? Oh no, yes, you passed some.
A: Learned French, remember, I didn't know any French before I went there.
B: That is not a bad thing.
*A: **(I have) lived one year in Mexico.***

Example 169 NoTa

A: Jeg ser jo fordelen med da å bo kanskje litt utenfor sentrum, men sånn vil det være uansett hvor du er da.
B: Vil du vurdere det hvis du nå skulle få deg familie?
A: Har ikke tenkt så langt. Jeg vet ikke nei. **Vanskelig å si**.
A: I can see the advantage of living a bit outside the city centre, but then it will be like that anywhere you are.
B: Would you consider it if you were having a family?
*A: Have not thought about that yet. I don't know. **(It is) difficult to say.***

Example 170

See Example 84, Chapter 2.

Example 171

See Example 79, Chapter 4.

Example 202 NoTa

A: **Vært på ferie da?**
B: Nei, jeg skal på ferie neste år, holder på å spare nå.
A: Ja du gjør det ja? Jeg òg.
*A: **(Have you) been on holiday, then?***
B: No, I am going on holidays next year, so I am saving up money now.
A: Are you? Me too.

Example 209 NoTa

A: Vi skal begynne å snakke om hvor du er født og oppvokst hen.
B: Ja, jeg er født og oppvokst i Oslo, på Stovner. **Bodd der hele livet mitt egentlig**.
A: We will start by talking about where you are born and raised.
*B: Yes, I am born and raised in Oslo, at Stovner. **(I have) lived there my whole life, really**.*

Example 211 NoTa

A: Hvor har du gått på skole hen?
B: **Gått på Sofienberg skole**, het det den gangen. Den er jo ikke lenger.
A: Where did you go to school?
*B: **(I have) gone to Sofienberg school,** it was called at the time. It doesn't exist anymore.*

Index

This book develops a grammar model which accounts for discourse ellipses in spoken Norwegian. This is a previously unexplored area, which has also been sparsely investigated internationally. The model takes an exoskeletal view, where lexical items are inserted late and where syntactic structure is generated independently of lexical items. Two major questions are addressed. Firstly, is there active syntactic structure in the ellipsis site? Secondly, how are discourse ellipses licensed? It is argued that both structural and semantic restrictions are required to account for the empirical patterns.

Discourse ellipses can be seen as a contextual adaptation. Ellipsis is only possible in certain contexts. The existence of ellipsis may lead to the impression that syntax is partly destroyed. However, the analysis shows that narrow syntax is not affected. The underlying structure stays intact, as the licensing restrictions concern only phonological realization. Hence, the grammar of discourse ellipses is best characterized as an interface phenomenon.

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