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Germanic Genitives

Edited by

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Volume 193

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Introductory overview

Genitives in Germanic

Christian Zimmer, Horst J. Simon & Tanja Ackermann

FU Berlin

(Der Genitiv blickt wild um sich.)

Ann Cotton, Sprache und Überfall, S. 141.

in: Ann Cotton, Daniel Falb, Hendrik Jackson,

Steffen Popp & Monika Rinck. *Helm aus Phlox.*

Zur Theorie des schlechtesten Werkzeugs. Berlin: Merve 2011.

In this book we focus on genitives in one language family, Germanic. Hence, we assemble studies on languages that are highly comparable with regard to many morphosyntactic properties. Concerning the genitive case, all languages (or their precursors) dealt with in this collective volume share the same starting point: they all once had a proper genitive case. However, today there are strong differences within this language family. To different degrees, the case systems – and especially the genitive case – were particularly prone to language change in all Germanic languages. While some languages are usually assumed to have lost morphological case completely (e.g. Dutch),¹ some languages seem to retain morphological dative and accusative case but not the genitive case (e.g. Faroese) and in other languages there is still a proper morphological genitive case (e.g. Icelandic, German).² In those languages where there (still) is a genitive, we can observe much variation linked to the use of this case (both morphologically, i.e. allomorphy and the omission of markers, and syntactically, i.e. competition with other cases or constructions). The high amount of diachronic and synchronic variation in all Germanic languages makes the genitive a particularly interesting phenomenon since it allows us, for example, to examine comparable but to a certain

1. Note, however, that this claim is not uncontroversial because of the survival of some fragments (cf. Scott 2014: 95–208). Furthermore, there is a subject vs. object distinction in personal pronouns (cf. e.g. Donaldson 2008: 66), which could be analysed as an instance of case marking.

2. The contributions to this volume are mainly concerned with morphological case. For general remarks concerning the distinction of abstract case and morphological case cf. Abraham (2006).

degree different diachronic pathways,³ the relation of synchronic and diachronic variation, and the interplay of linguistic levels (phonology, morphology, syntax, and semantics).

Throughout the Germanic languages, some general patterns can be observed:⁴ On the one hand, genitives are relatively form-stable, i.e. they are often still overtly marked whereas other cases either lost their markers in the course of language history (such as datives), or had only partly specific marking to begin with (accusatives) (cf. Weerman & De Wit 1999: 1180 on Dutch; Blake 2004: 177–178 on English, and Zimmer, this volume, on German). Interestingly from a diachronic point of view, in some cases the genitive marker as such outlasts some of its (primary) functions – and acquires new functions (cf., e.g., Kopf, Petersen, and Szczepaniak, this volume, on the emergence of linking elements; for possessive markers, see below). On the other hand, however, a very noticeable decline with regard to genitives can be tracked in the syntactic domain; that is, several constructions that used to involve genitive-marked elements in older periods of the Germanic languages have been replaced by ones including DP/NPs with other cases. A well-known and much-discussed example concerns the accusative-genitive opposition in ad-verbal nominals in German: whereas in Old High German this opposition had an important function, which has been described as basically similar to verbal aspect, the contrast has disappeared completely today.⁵

Verbal genitive objects were (or are) also replaced in other Germanic languages, e.g. by constructions involving a preposition (cf. the Faroese examples in (1), Petersen & Szczepaniak, this volume), or by another case (cf. the Icelandic examples in (2), Jónsson 2013: 9).⁶

- (1) a. *bíðaði hon mín*
waited she.NOM.SG me.GEN.SG
b. *hon bíðaði eftir mær*
she.NOM.SG waited after me.DAT.SG
'She waited for me.'

3. The genitive is thus an ideal topic for comparative diachronic work as advocated in Fleischer & Simon (2013). In that sense, the present volume is an implicit instantiation of the research programme sketched there.

4. Cf. Carlier & Verstraete (2013) for a recent collection of papers on genitives with a focus on non-Germanic languages.

5. Cf. Donhauser (1990, 1998); Leiss (1991, 2000); Schrodtt (1992); Abraham (1997), and Abraham & Leiss (2012); Heindl (2017) gives a recent overview.

6. See also Jónsson & Eythórsson (2011) and the literature cited therein.

- (2) a. *Inni í mér er djöfullinn að freista mín.*
 inside in me is the.devil.NOM.SG to tempt me.GEN.SG.
 b. *Inni í mér er djöfullinn að freista mig.*
 inside in me is the.devil.NOM.SG to tempt me.ACC.SG.
 ‘The devil inside me is tempting me.’

Another example of case replacement (more specifically: genitive construction loss) is nominals governed by prepositions such as Dutch *op grond* ‘on the basis’, cf. (3) (Scott 2014: 48).

- (3) a. *op grond der berigten van M. Christ* (Early Modern Dutch)
 on basis the.GEN.PL reports of M. Christ
 ‘on the basis of M. Christ’s reports’
 b. *op grond van de berichten* (Modern Dutch)
 on basis of the reports
 ‘on the basis of the reports’

Generally, there is a remarkable tendency that the genitive develops into an exclusively adnominal case. But even here, there is a lot variation, cf., e.g., the abundant literature on ‘genitive variation’ in English, as illustrated in (4):⁷

- (4) a. *the woman’s car*
 b. *the car of the woman*

The noticeable (diachronic and synchronic) variability is also a reason for the fact that a seemingly simple question such as ‘Does language *x* have a morphological genitive?’ (which is quite often important with regard to the typological profile of a language) is not at all as trivial as one might think. For example, there is an ongoing debate on the question if something like *Peter’s book* can be analysed as containing a genitive case. It has been suggested that we are dealing with a possessive marker here that continues the morphological material of (former) genitive marking, but is no longer a genitive case proper.⁸ – In this volume new light is shed on the delimitation of case markers on the one hand and possessive markers on the other hand by reference to a lesser studied language, Yiddish, and by empirically based arguments from the study of proper names, which are thought to be crucial for the phenomenon at hand (cf. the contributions by Hoge and Ackermann, respectively).

7. For an overview see Rosenbach (2014).

8. Cf., e.g., Anderson (2013) and the literature cited therein for a recent discussion on English.

However, although the history of Germanic is characterized by the loss of genitive constructions, the genitive very often seems to be more vital than alleged (cf. Scott 2011) and in some cases there seems to be – to some extent – even some kind of genitive revival.⁹ In all probability this has to do with a maybe rather surprising function of the genitive: its use as a marker in the service of sociolinguistic indexicality in some languages. Employing a genitive has become a means to present oneself as a speaker who is aware of normative rules, in other words as someone who ‘knows how it is done’, i.e. who is conservative and resists grammatical change that is by many speakers perceived as a sign of linguistic (and, by a curious extension, social) decline. Hence, case variation involving genitives can play an important role in the allocation of linguistically based prestige.¹⁰

By focusing on the dynamics of one specific cell in morphological paradigms (or rather: two adjacent ones, singular and plural), we include but do not limit ourselves to the study of the genitive’s main function: the expression of possession (cf. Braunmüller, this volume, on this topic; see also Börjars, Denison & Scott 2013). Besides possession (even conceived in a broad sense), ad-nominal genitives serve various functions in Germanic languages, many of which are dealt with in this volume: explicative genitive constructions (cf. (5a), Schlücker, this volume), ad-adpositional (cf. (5b), Petersen & Szczepaniak, this volume), partitive (cf. (5c), Hoekstra, this volume), ad-verbal (cf. (5d), Gallmann, this volume), and purely formal genitives, without synchronic syntactic function, such as fixed expressions (cf. (5e), cf. Hoekstra, this volume) and adverbials (cf. (5f), Döhmer, this volume).

- (5) a. *ein Strahl d-er Hoffnung* (German)
 a ray the-GEN.SG hope
 ‘a ray of hope’
- b. *oman til strand-ar* (Faroese)
 down to beach-GEN.SG
 ‘down to the beach’

9. Cf. Döhmer, this volume, on Luxembourgish; see also Scott (2014) on Dutch, and Szczepaniak (2014) on German.

10. As a side-remark concerning the perception of genitives by the general public: There was considerable media coverage of the workshop where the papers collected in this volume were first presented, both in print and on radio/TV, in Germany and in Austria. The fact that none of us declared their intention to save the allegedly ‘threatened’ genitive in German or any other language sparked a remarkable response in the form of hate-mails and flaming on public websites. We take this as a noteworthy instance of public awareness of grammatical phenomena that can be compared to similar reactions in the past connected to such contentious topics as proposals for feminist/gender-sensitive language reform or the alleged decline of the German language due to multilingualism.

- c. *en tonna bjaer-s* (Old Frisian)
 a ton beer-GEN.SG
 'a ton of beer'
- d. *Er enthielt sich jeglich-en Widerstand-s.* (German)
 He abstained REFL any-GEN.SG resistance-GEN.SG
 'He abstained from any resistance.'
- e. *de grime des Heare* (West Frisian)
 'the wrath of the Lord'
- f. *rouege Gewëssens* (Luxembourgish)
 'with a clear conscience'

Contributions to this volume

The volume at hand is based on a selection of papers, originally presented at the workshop *Germanic Genitives*, which was held at Freie Universität Berlin (22–24 May 2014). The papers included are methodologically diverse (diachronic corpus studies, synchronic corpus studies, speaker judgements, experiments) and the topics covered range from morphology, syntax, and semantics to the influence of (normative) grammars and the perception and prestige of grammatical items. All contributions are concerned with the Germanic language family and within this, some papers deal more specifically with one of its more prominent members: German. Besides these papers, there are also contributions that focus on lesser studied languages and provide a thorough overview of the genitive case in the respective grammatical system. **Caroline Döhmer**'s contribution is one of these portraits. On the basis of a corpus analysis (of both spoken and written language), she examines the status of the genitive in Luxembourgish discussing attributes, genitive complements of verbs and adjectives, prepositions, adverbials, family names, and partitives. It is shown that genitive structures mainly occur in the form of idiomatic phrases and lexicalized items. However, Döhmer attests also a limited number of genitives as verb or adjective complements, which is explained by the expansion of the Luxembourgish language into the written domain and consequent stylistic choices. Furthermore, the author shows that Luxembourgish makes extensive use of partitive structures, which are derived from former genitive constructions; finally name constructions containing a genitive form of the family name (e.g. *de Wohl-s René* 'the Wohl_{family_name}-s René_{given_name}') are still productive but on decline.

Jarich Hoekstra portrays the genitive in Frisian focusing on the development of constructions that are interesting from a theoretical and comparative perspective. As in Luxembourgish, the genitive is not really alive in modern Frisian.

However, while the Old Frisian case system as such collapsed, several instances of redistribution, reanalysis, refunctionalization, and recultivation of the genitive are observable. More concretely, the distribution of the former genitival endings, the development of prenominal genitives from determiner to modifier, functional changes of the former genitival endings, and the literary use of the genitive are addressed.

The papers by Christian Zimmer, Kristin Kopf and Hjalmar P. Petersen & Renata Szczepaniak focus on specific (former) genitive markers and their destinies. **Christian Zimmer** is concerned with the fate of the major nominal genitive marker in German, the genitive-(e)s. In Contemporary German, this marker is sometimes omitted, which has been interpreted as evidence for an imminent complete loss of nominal case markers in German. However, on the basis of synchronic and diachronic corpus data Zimmer shows that genitive-s omission is restricted to a well-delimited group of nouns and that it should not be subsumed under the general tendency towards deflection in German(ic). The author elaborates a functional explanation for genitive-s omission, which is supported by a psycholinguistic experiment. Moreover, he rejects an extra-linguistic explanation based on the prescriptive influence of grammarians for the observed stability of the genitive-(e)s.

In **Kristin Kopf's** contribution it is also the German genitive-s that plays a major role. She focuses on genitive attributes in Early New High German (1350–1650) that have been reanalysed as first components of compounds. As a result of this reanalysis genitive-endings, such as the genitive-s, developed into linking elements (e.g. *das König-s_{linking element} Schloss* 'the royal castle'). Corpus data show that prenominal non-specific genitive constructions can be identified as the primary source of linking elements; moreover, a clear increase in productivity of the new compounding pattern can be observed. Furthermore, it is shown how the incorporation of this new pattern into the core of the grammatical system is reflected in writing: Initially, these compounds were written separately, followed by a 'century of hyphenation' (1650–1750), while in Contemporary German writers usually do no more separate the first constituents containing linking elements graphematically.

Hjalmar P. Petersen & Renata Szczepaniak are concerned with the emergence of linking elements, too, but discuss another language, namely Faroese. Starting from an overview of the use of genitives in Contemporary Faroese (which is mainly restricted to lexicalized items and phrases with the preposition *til* 'to'), they address linking elements that are directly derived from genitive endings (e.g. *dag-s verk* 'day-GEN.SG work' > *dag+s+verk* 'day's work') and non-paradigmatic linking elements, i.e. linking elements that are not homophonous with any inflectional ending of the noun, e.g. +s+ in *elli+s+heim* 'old people's

home' and +a+ in *mjólk+a+pakki* 'milk carton'. The authors claim that the choice and distribution of the new non-paradigmatic linking +a+ is strongly influenced by the phonological context – an observation which is supported by the results of an experiment including an acceptability test with novel and nonsense compounds.

The papers by Peter Gallmann, Tanja Ackermann and Kerstin Hoge all focus on 'genitives' in nominal configurations (as well as on the question of what we should actually analyse as a case marker). Peter Gallmann and Tanja Ackermann investigate German, where we can still observe clear instances of genitive case in nominal configurations. As **Peter Gallmann** shows, the distribution of genitive case can be depicted by a rule – the so-called Genitive Rule – which is an epiphenomenon based on a visibility condition for genitive case and the rules for the distribution of case, number, and gender features within the DP/NP. Via this rule, the occurrence of genitive syntagms and their competitors with other cases can be predicted quite exactly. Nonetheless, some deviations are to be observed: On the one hand we find constructions that are grammatical in spite of violating the Genitive Rule, and on the other hand there are constructions that comply with the Genitive Rule but that are perceived as ungrammatical. Those interesting mismatches between the Genitive Rule and the use of the genitive case receive particular attention.

Tanja Ackermann focuses in her contribution on such an exceptional case where the Genitive Rule is violated, but the respective construction is acceptable: possessive -s constructions, such as *Maria-s Auto* 'Mary's car', which are, for German, traditionally analysed as prenominal genitives. She argues on the basis of empirical data that an interpretation of the -s in these adnominal possessive constructions as a marker of a structure involving a prenominal genitive would be misguided – hence, the exception to the Genitive Rule is only apparent; these structures do not have to comply with the Genitive Rule. Moreover, a comparison with the – more advanced – development of possessive -s in the history of English shows that there are striking similarities with the German development.

Kerstin Hoge investigates a quite similar construction in Yiddish. While Ackermann argues that the s-marker in prenominal possessive constructions has lost its genitival properties in German, Hoge takes the opposite view with regard to the Yiddish data: she considers the possessive marker -s as part of the exponence of genitive case. This analysis then necessarily leads to a revision of the traditional description of the Yiddish case system, which is standardly characterised as a language with a three-case system lacking a genitive case.

The final two contributions to this volume by Barbara Schlücker and Kurt Braunmüller are concerned with the genitive and its functional competitors.

Barbara Schlücker focuses on a word formation pattern that is a potential competitor of the adnominal genitive in German, namely proper name compounds, i.e. nominal compounds with a proper name as left constituent (e.g. *Kennedy-Sohn* vs. *Kennedys Sohn* ‘Kennedy son, Kennedy’s son’). The paper aims to describe the similarities and differences between the word formation pattern and the syntactic construction and specifies to what extent and in which regard they can be said to be equivalent. Schlücker shows that specific subtypes of proper name compounds and their syntactic genitival counterparts indeed exhibit a substantial amount of functional overlap, but that there is no true meaning equivalence between these two constructions.

Kurt Braunmüller is also concerned with genitive constructions and their functional competitors, focusing on one of the genitive’s main functions: the expression of possession. From a contrastive perspective – mainly the Scandinavian languages, (Low) German and Dutch are analysed – the genitive case is compared with the dative case and with periphrastic constructions, highlighting a functional overlap. Finally, the author discusses whether the developments observed can be described as a progress in language (as conceived of by Otto Jespersen) or rather as a ‘helix in language history’ (a concept going back to Georg von der Gabelentz).

In conclusion, the contributions to this volume help us to understand the complex interplay of both intra-linguistic and extra-linguistic aspects that play a role with regard to the morphological cell(s) at hand, ranging from syntactic (cf., e.g., Gallmann’s paper) to stylistic aspects (cf., e.g., Döhmer’s paper). It turns out that the genitive is an interesting topic even if a language is usually assumed not to have this case anymore as many former genitive markers start(ed) to develop a life of their own. Many parallel – but not completely congruent – paths are focused on in this volume, cf., e.g., the papers on the diachrony of linking elements in German, Faroese, and Frisian. The findings in this book enhance our understanding of the genitive not only by describing its properties, but also by discussing its demarcation from functional competitors and related grammatical items. Under-researched aspects of rather well-described languages (especially German) and lesser known languages (Faroese, Frisian, Luxembourgish, Yiddish) are examined. Thus, we believe to shed some revealing light on basic principles of the grammatical behaviour of form elements.

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Portraits of lesser studied languages

A new perspective on the Luxembourgish genitive

Caroline Döhmer

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This paper deals with genitive constructions in the Luxembourgish language. It is often assumed that the Luxembourgish genitive has only survived in idioms and archaic structures (Russ 1996: 74, Schanen & Zimmer 2012: 64), but I will investigate this claim in more detail. Based on a qualitative corpus analysis of spoken and written Luxembourgish (over 62 million tokens), different constructions will be systematically compiled and analyzed. Due to the rising interest in morphosyntactic variation and the improved data situation, this descriptive analysis investigates the current status of the genitive within a single system of grammar, i.e. Luxembourgish. The paper explores six main areas that are relevant for Luxembourgish genitives: attributes, genitive complements of verbs and adjectives, prepositions, adverbials, family names, and partitives. The structures obtained from the corpus will then be discussed from a formal and a functional perspective in order to illustrate Luxembourgish case typology. As the data shows, the genitive behaves differently according to the different areas that have been selected beforehand. On the one hand, genitives can be found in lexicalized structures, i.e. adverbials. On the other hand, different genitives occasionally appear as verb or adjective complements. This phenomenon is partly caused by the expansion of the Luxembourgish language into the written domain. Another main finding is that Luxembourgish makes full use of an independent set of partitive pronouns and determiners that have been derived from former genitives.

1. Introduction

It has been a standard assumption that the Luxembourgish genitive is archaic and only remains in fossilized structures (Russ 1996: 74; Schanen & Zimmer 2012: 64). These predictions will be analyzed on the grounds of empirical evidence. The present paper is a descriptive study on the formal and functional properties of the genitive case and its competing constructions in Luxembourgish. The research questions are the following (among others): In which (formal and functional) contexts does the genitive occur? What are the distributional patterns of genitive

and other constructions? How does the genitive fit into the case paradigm of this particular language? How can its structural status be assessed (from fossilized to productive)?

The first section starts with a brief summary of the Luxembourgish language situation, describing structural characteristics as well as the sociolinguistic status. The main part of the paper explores genitive constructions in six linguistic categories (cf. Willems 1997: 189):¹

attributes:	<i>Enn des Mounts</i> 'end of the month'
complements of adjectives:	<i>enges Sportlers wierdeg</i> 'to be worthy of a sportsman'
complements of prepositions:	<i>innerhalb Europas</i> 'within Europe'
adverbials:	<i>enges Daags</i> 'one day'
family names:	<i>de Schmidts Claude</i> 'Claude Schmidt'
partitives:	<i>däers Kuch</i> '(some of) this cake'

In this analysis, the research perspective is mainly synchronic in order to outline the actual use of the genitive. The conclusion will summarize the results from a typological point of view and will provide answers to the main research questions.

2. Characterizing the Luxembourgish language and data

Before turning to the analysis, some structural and methodological preliminary points need to be established. Luxembourgish (called *Lëtzebuergesch*²) is the national language of the Grand-Duchy of Luxembourg. Luxembourgish is a Moselle-Franconian dialect that evolved into an *Ausbausprache* (Kloss 1978). Due to its geographical situation between Germany, France, and (French-speaking) Belgium, and its history of nation building, the country has a trilingual language policy: German, French, and Luxembourgish (cf. Gilles & Moulin 2003: 303).

1. Willems (1997) describes the system for genitives in the Standard German system. Due to the genealogical relationship between Luxembourgish and German, the extensive research on Standard German and German varieties can be taken as a scientific starting point for this topic.

2. In the text, I will use the English equivalent *Luxembourgish*, or abbreviated *Lux*.

Although Luxembourgish and German have the same root origin and show structural overlapping, they are considered as two different systems, meaning that there is no continuum between these two languages (no diaglossic system). Lux. is a particularly prestigious language with a high national-symbolic value and is mainly spoken as L1 by the local non-migrant population (cf. Gilles & Moulin 2003: 305). Since World War II the national language of Luxembourg has undergone different historical-political and sociolinguistic developments: (a) the expansion of a supra-regional variety (dialect leveling), (b) the official language status in 1984, and (c) the enhancement of Luxembourgish in the written domain, effectively triggered by computer-mediated communication (Gilles & Moulin 2003: 310). These three scenarios have an effect on linguistic use patterns and the ongoing standardization process. This is why it is crucial to carry out qualitative investigations on recent language structure.

The aim of this paper is to provide an empirically adequate picture of use of the genitive in Luxembourgish. The research corpus³ contains texts from the years 2003 to 2013. The data consists of the following online and offline text types, displaying different degrees of formality:

- comments sections on the national news site <rtl.lu>
- message boards on the web (on various topics such as cars or photography)
- texts from <wikipedia.lu> (retrieved 2013)
- log files from Lux. chatrooms (2003–2006)
- radio news (text preparation for reading on air)
- parliamentary reports and political interviews (transcripts)
- transcripts from family discussions and other interviews
- term papers from the University of Luxembourg (written in Lux.)
- Luxembourgish literature

The text type will be indicated in brackets next to the example given in the text. Overall, the database contains more than 62 million tokens. The corpus is not annotated or standardized in any form. All research must be carried out by searching for simple words or regular expressions. All Luxembourgish examples drawn from the corpus are original documents; no corrections have been made at any level (neither stylistic, nor orthographic). Sentences not taken from the corpus are marked with a plus-sign (+).

3. I want to thank Prof. Peter Gilles for making this broad database available. Special thanks also go to Sophie Neuenkirch for sharing her transcripts with me (family discussions) and a friend of mine, who wishes to remain anonymous, for sending me the chat log files.

3. Preliminary remarks

Before evaluating the corpus data, some linguistic requirements must be taken into account: (a) authenticity, (b) text type, (c) structural visibility and (d) the notions of productivity, lexicalization, and idiomaticity.

a. Authenticity

First, the corpus data needs to contain authentic linguistic material. Authenticity means that the utterances should come from native speakers and reflect the basic use of the language as L1. Due to the anonymity of the internet data (which represents a major part of the corpus), no speaker profiles (gender, age, nationality, education, etc.) can be compiled. For the non-web-based texts, all authors and/or speakers are native speakers or have a similar linguistic competence. In fact, it is very unusual for non-Luxembourgish people to speak or write Luxembourgish. The authenticity in such a broad corpus can never be fully guaranteed, but these data sets nevertheless represent a fruitful source for structural analyses.

b. Text type

Some text types enhance new constructions or styles: formal or institutional registers require a repertoire other than everyday language. Chat sessions among teenagers reveal sentences in styles other than poetry or prose. Transcripts of oral speech may contain more constructional flaws than a term paper. Moreover, other factors have been revealed in the research literature. Androutsopoulos (2007: 91) pointed out that in computer-mediated communication (i.e. message boards) the users tend to write differently when they are emotionally charged, e.g. in a heated discussion. For his research on an internet hip-hop community, he showed that the more a single user was angry (while arguing online), the more elaborate his language structure became. This scenario could also hold for the Luxembourgish data. The internet data in the corpus comes predominantly from the comments section of the national news site <rtl.lu>. People mostly use this source to accuse the government or the unfairness of the political system, generally resulting in a sense of victimization. Therefore, the emotional charge in their texts is rather high and may give rise to more elaborate constructions.

Another issue that needs to be addressed is the existence of linguistic repertoires in Luxembourgish. The polyglossia in Luxembourg divides the three central languages (Lux., German, French) into different domains of use (cf. Hoffmann 1996: 103f.; Gilles 2011). As Gilles (2011: 58) points out, very formal text types ('konzeptionell schriftlich') might be taken over by another language, i.e. French for legal texts. The analysis of different diasystems in

the Luxembourgish language remains unexplored until today. The scientific fundamentals are therefore not (yet) sufficient to enable precise predictions about styles and registers.

c. Structural visibility

Case marking in Luxembourgish occurs on the article. The adjective can take inflectional suffixes as well (indicated in morphological brackets). The core case system is shown in Table 1. Genitive case marking is deliberately not added, because the corpus study does not provide enough examples of different adjectives within genitive-NPs. I will come back to this point when it comes to the Lux. partitive system in the following section.

Table 1. Case marking on the NP-level

accusative + nominative = syncretism		
M.:	+ {en}	<i>den déck-en Hond</i> 'the big dog'
N.:	+ {t}	<i>dat déck-t Hong</i> 'the big chicken'
F.:	+ {Ø}	<i>déi déck-Ø Kaz</i> 'the big cat'
PL.:	+ {Ø}	<i>déi déck-Ø Déier-en</i> 'the big animals'
dative		
M.:	+ {em}; + {en}	<i>d-em déck-en Hond</i>
N.:	+ {em}; + {en}	<i>d-em déck-en Hong</i>
F.:	+ {er}	<i>d-er déck-er Kaz</i>
PL.:	+ {en}	<i>d-en déck-en Déier-en</i>

Before turning to the corpus analysis, it is necessary to clarify how genitives can be identified.⁴ On the nominal level, feminine nouns are formally equivalent in the dative and in the genitive.⁵ This is also one reason why predicate genitives have to be left out since they only appear with feminine nouns, such as

4. In Luxembourgish, interrogative pronouns do not exist in the genitive, making it hard to clearly identify the constituent structure in the sentence.

5. The same syncretism holds for Standard German: *er gedenkt [seiner Frau]_{GEN}* 'he commemorates his wife'; *er hilft [seiner Frau]_{DAT}* 'he is helping his wife'. Note that the notion of syncretism refers to the surface structure (strictly formal aspect).

Meenung.FEM ‘opinion’ in *ech sinn [denger Meenung]*_{DAT = GEN} ‘I am in complete agreement with you’ or *Usiicht*.FEM ‘view’ in *hien ass [eiser Usiicht]*_{DAT = GEN} ‘he is sharing our point of view’.

For masculine and neuter NPs, the determiner and only in rare cases the noun itself are marked with an {-s}. The basic, undisputable forms that are taken into consideration are the following: *des* (definite article), *enges/kenges* (indefinite article) and *senges* (possessive article).

Genitives may also appear as regular personal pronouns (*ech brauch denger_{GEN} net* ‘I don’t need you’) or in partitive pronouns (*ech sinn es_{PART} sat* ‘I am fed up with it’). Some scholars provide paradigms displaying genitive forms of personal pronouns (Russ 1996: 83; Schanen & Zimmer 2012: 156). The fact that these forms are equivalent to the possessive pronouns and articles (feminine) makes it hard to isolate those genitive forms.

Table 2. Personal pronouns in the genitive

personal pronouns (genitive) ⁶			
1SG	<i>menger</i>	1PL	<i>eiser/onser</i> ⁷
2SG	<i>denger</i>	2PL	<i>ärer</i>
3SG M,N	<i>senger</i>	3PL	<i>hirer</i>
3SG F	<i>hirer</i>		

In this analysis, I will call constructions with overt genitive marking ({-s} for neuter and masculine NPs) ‘genitive construction’. Prepositional structures will be called PP (prepositional phrase) with reference to the actual preposition in use. Note that in Luxembourgish, articles may be cliticized onto the preposition (depending on the form and gender of the article).

d. Productivity, lexicalization, and idiomaticity

Although the term productivity is mostly used in morphology, it can also be applied to (morpho-)syntax. It may be difficult to depict the exact productivity of syntactic patterns, however it should be emphasized if a specific construction remains a single occurrence or if similar constructions can be found

6. These pronouns can only be used in reference to a person. Partitive pronouns are not mentioned here because they belong to another functional system (see Section 4).

7. The forms *eiser/onser* result from dialect variation but are both considered ‘General Luxembourgish’.

in other contexts or with different lexical items. The latter would display a rather high productivity, allowing new instances of the same type.

Even if genitives do occur in the corpus, they may be lexicalized or idiomatized. Terms related to lexicalization and idiomaticity are often used inconsistently or are defined in different ways. In this paper I will stick to the following definitions: Lexicalization is a phenomenon that describes the gradual fixation of a word combination into a fixed expression. This fixation or frozenness sometimes goes along with irregular (morpho-syntactic) use patterns or other structural restrictions (Burger 2007: 20f.). Idiomatic constructions are also fixed word combinations, but they are usually opaque in their meaning and based on specific knowledge, e.g. *das ist kalter Kaffee* 'lit.: this is cold coffee; figure: this is old news' has nothing to do with actual cold coffee, but with old news (cf. Fillmore, Kay & O'Connor 1988; Burger 2007: 21f.; Szczepaniak 2011: 27).

The main purpose of this study is to identify the 'liveliness' status of the genitive case, in order to classify the case system from a typological point of view. This is why the corpus study has significant potential.

When it comes to the status of the genitive in Standard German, there is no consensus about the (relic) status of this case. The overall tendency of Standard German is that genitives are gradually regressing (in the basic morphological inventory) and that they are increasingly unproductive (cf. Willems 1997: 189; Ágel 2000: 1870f.; Nübling et al. 2008: 102). However, several studies show that genitives remain stable in certain syntactic contexts, i.e. genitive marking in Standard German still persists in different nominal attributes (cf. Zimmer, this volume) and several prepositions still govern genitive case (cf. Scott 2011, 2014; Szczepaniak 2014). Szczepaniak (2014: 34) even mentions the term of a 'prestige genitive' in Standard German. This corpus study will reveal the status of different genitive constructions in the Luxembourgish language.

4. Genitive constructions in Luxembourgish

4.1 Attributes

Genitival attributes mainly exist on a lexicalized basis. This holds for several time adverbials, for example *Enn [des Mounts]_{GEN}* '(at) the end of the month' or *Ufank [des Joers]_{GEN}* '(at) the beginning of the year'. Yet these constructions have a limited set of nouns with which to operate, namely *Mount* 'month' and *Joer* 'year'. This construction is highly fragile, meaning that any NP that bears more information than the two nouns mentioned before is blocked: **Ufank des Schaltjoers* '(at) the

beginning of the leapyear' or **Ufank nächste Mounts* '(at) the beginning of the next month' are not possible. This structural inflexibility marks the lexicalized status of this attributive construction.

Another time indication appearing in the genitive is *Zäit senges Liewens* 'throughout his life'. The question here is whether this is a true noun + attribute structure or whether (a) this is a lexicalized time expression that can be interpreted as one temporal adverb or whether (b) the noun *Zäit* is in this context reanalyzed as a preposition followed by a genitive (this is the case for German, marked by the lower case letter *z* in *zeit seines Lebens*). Since it only appears in this structure in the meaning of a temporal adverbial, this construction is rather unproductive and is also idiomatized.

In general, genitive attributes are quite rare. The KWIC-analysis with the possessive article *senges* (3SG) and the indefinite article *enges* (M,N SG) shows clear tendencies: The *senges* ($n = 168$) and *enges* ($n = 659$) word searches reveal only six genitival attributes that do not belong to a fixed expression such as *Zäit senges Liewens* or other syntactic structures.

Although there are only a few instances of 'true' genitive attributes, these structures do occur and should not be ignored. In the following examples the genitive-s does not always appear attached to the noun.

- (1) *NET CONFORME mat d-en Normen eng-es DRENKWASSER*
not compliant with the-DAT norms a-GEN drink-water

Some of the encountered genitives prove to be word-for-word translations of German proverbs:⁸ *Jidereen as [senges Glecks]_{GEN} Schmad* (<rtl.lu> comments) 'man forges his own destiny'. An indicator of the structural stability is the archaic preceding genitive attribute, which is unusual both in German and in Luxembourgish.

Other cases in which German patterns have been adapted can be seen in Examples (2) and (3). These constructions originate from the Luxembourgish entries on <wikipedia.lu>. In the field of astronomy, in particular, we see some authors translating the German article into Luxembourgish word for word, resulting in the following sentences:

- (2) *Sou léisst sech e beschtschléissendes Ellipsoid*
so let itself a best-fitting. Ellipsoid
(*Referenzellipsoid*) *vun eng-er ganz-er Regioun oder*
(reference-ellipsoid) of a-DAT whole-DAT region or

8. The underlying German proverb is the following: *Jeder ist seines Glückes Schmied*.

eng-es Kontinent-s ofleeden. (<wikipedia.lu>)⁹

a-GEN continent-GEN deduct

‘This way, a best-fitting ellipsoid (referential ellipsoid) can be deducted by a whole region or continent.’

(3) *de mëttlere Bunnradius seng-es Massezentrum-s* (<wikipedia.lu>)¹⁰

the middle track.radius his-GEN mass.centre-GEN

‘the track’s mid-radius of its mass centre’

The fact that these authors have applied German syntax patterns on the Luxembourgish language seems fairly obvious (cf. the German neuter suffix {-es} on the adjective, which is not available in Lux.). Nonetheless, the morphological inventory of Lux. must also possess those features in order to rebuild these genitive constructions. In other words, if there were no genitive at all, these constructions would never appear. Luxembourgish represents in this case a rather dynamic grammatical system allowing this kind of variation.

Another indication for the word-for-word translations of these users can be seen on the first adjective *beschuttschléissendes* in (2) that bears an incorrect inflectional suffix: {-es} does not exist for Lux. adjectives in the nominative (cf. Table 1 above). Moreover, the adjective itself is obsolete since adjectives derived from a present participle almost never appear in Lux. In (2), the author even provides an expected *vun*-PP but then switches to a genitive, even though the PP-attribute seems to be the more authentic construction (two genitival attributes were used in the German original text). Yet it is unclear whether these examples are cases of hypercorrection or structural borrowing.¹¹ This would mean that the prestigious use of the genitive in Standard German has an influence on the Luxembourgish language use. Associations of prestige and stigma are often found in adult language and in written styles (cf. Labov 1972; Disterheft 1990, quoted by Hopper & Traugott 2003: 137f.). Since the majority of the Luxembourgish genitives described here are actually found in online text types (mainly in comments from <rtl.lu> and in texts from <wikipedia.lu>) and therefore part of written adult language, stylistic reasons might play a role in the use of the genitive.

Structural borrowing describes “the transfer of word-forms, morphemes, and even structural organization patterns from one language to another”

9. German source text: *So lässt sich ein bestanschließendes Ellipsoid (Referenzellipsoid) einer ganzen Region oder eines Kontinents ableiten* (<wikipedia.de>).

10. German source text: *der mittlere Bahnradius seines Massezentrums* (<wikipedia.de>).

11. Hypercorrection is the “overuse of an item considered to be socially or stylistically salient” (Hopper & Traugott 2003: 137).

(Matras 2011: 204). If this was the case for the Wikipedia-scenario at hand, then the Luxembourgish author would simply adapt his sentence to the Standard German source by taking over certain structural aspects.

The difference between these two notions is that hypercorrection primarily relies on prestige and stigma while structural borrowing is in fact not connected to style. Additionally, hypercorrect borrowing strategies may lead to ‘wrong’ utterances. In such a case, speakers may not know the exact rules for certain forms and therefore develop new “cover-up” strategies (cf. Hopper & Traugott 2003: 137). However the question whether these Luxembourgish genitives are considered ‘right’, ‘wrong’ or particularly prestigious requires another scientific approach and must remain unanswered at this point.

The so-called apostrophic genitive of the type *grandma’s hat* does not appear in the corpus, except for one noun in a specific construction: *Europas Zukunft* (<rtl.lu> comments) ‘Europe’s future’. Maybe, *Europas Zukunft* has been reanalyzed as a compound since there is no obvious explanation for this special genitive use.

Example (4) shows that post-nominal attributes appear in different forms, but (almost) never in the genitive. The word *Méiglechkeet* ‘possibility’ can take genitive attributes in German (*die Möglichkeit des Wartens* ‘the possibility of waiting’), but Luxembourgish prefers a PP- or a VP-structure to succeed.

- (4) *d’Méiglechkeet* ‘the possibility’
- | | |
|---------------------|--|
| <i>vun</i> -PP | <i>vun Wirtschaftsspionage</i>
‘of economic espionage’
(<rtl.lu> comments) |
| <i>op</i> -PP | <i>op eng gut zukunft</i>
‘of a good future’
(<rtl.lu> comments) |
| <i>ze</i> -VP | <i>Subsiden ze kreien</i>
‘to receive funding’
(forum) |
| <i>fir...ze</i> -VP | <i>fier matzeschwätzen</i>
‘to join in’
(<rtl.lu> comments) |
| <i>datt</i> -VP | <i>datt mir eventuell all déi Coursen do kënnen ofhalen</i>
‘that we can maybe teach all these classes’
(local council report) |

Altogether, genitive attributes are very rare and belong either to time adverbials or to idioms, mostly derived from German, or to a (hypercorrect?) use of German NP patterns. Attributes are in most cases introduced by a PP or by underspecified NPs bearing no case information (non-oblique).

4.2 Genitive complements of verbs and adjectives

Adjectives and verbs can take genitive complements. In Luxembourgish, there are only few instances of genitive complements, mostly involving legal language as can be seen in Examples (5) and (6).

- (5) *iwwerféieren* ‘to convict’
- | | | | | |
|-------------------|-----------------------|-----------------|--------------------|--------------|
| <i>wéinst</i> -PP | <i>wéinst</i> | <i>Doping</i> | <i>iwwerfouert</i> | <i>n</i> = 7 |
| | because.of | doping | convicted | |
| <i>vun</i> -PP | <i>vum</i> | <i>Doping</i> | <i>iwwerfouert</i> | <i>n</i> = 1 |
| | of.the.DAT | doping | convicted | |
| Dat | <i>d-em</i> | <i>Doping</i> | <i>iwwerfouert</i> | <i>n</i> = 1 |
| | the-DAT | doping | convicted | |
| Gen | <i>d-es</i> | <i>Doping-s</i> | <i>iwwerfouert</i> | <i>n</i> = 2 |
| | the-GEN | doping-GEN | convicted | |
| | ‘convicted of doping’ | | | |
| | (<rtl.lu> comments) | | | |
- (6) *sech schëlleg maachen* ‘to be guilty of’
- | | |
|---------------|---|
| <i>an</i> -PP | <i>sech an der selweschter Saach schëlleg gemaach</i> |
| | ‘the same affair’ |
| | (<wikipedia.lu>) |
| <i>un</i> -PP | <i>sech un engem Massaker [...] schëlleg gemaach</i> |
| | ‘a massacre’ |
| | (radio news) |
| Dat | <i>sech dem Amtsmissbrauch schëlleg gemacht</i> |
| | ‘abuse of authority’ |
| | (<rtl.lu> comments) |
| Gen | <i>sech enges Fehlverhaltens schëlleg gemaach</i> |
| | ‘misconduct’ |
| | (<rtl.lu> comments) |

Seemingly, genitive complements do exist in Luxembourgish but always in coexistence with datives and PPs. However, the genitive use seems to be restricted to these two verb constructions in (5) and (6).¹²

Next to the aforementioned verbal complements, the corpus analysis also highlighted one adjective that frequently appears alongside genitives: (*on*-)*wierdeg*/*würdeg* ‘(un-)worthy’. Again, the genitive competes with the dative.

12. A prominent example cited in Lux. grammars (Schanen & Zimmer 2012) and dictionaries (LWB) is the construction *brauchen* + pers.pro._{GEN} ‘to need someone’. The only two corresponding proofs come from older references: *Ech brauch jo denger*_{GEN} net ‘I don’t need you’ (*De Rénert* by Rodange 1872). In recent texts, *brauchen* takes an accusative complement.

- (7) *würdeg/wierdeg* ‘worthy’
 Dat *dësem Gemengerot würdeg*
 ‘worthy of this local council’
 (local council report)
dem Chrëschtentum wierdeg
 ‘worthy of Christianity’
 (<rtl.lu> comments)
 Gen *kenges Sportlers a kenges Staatschefs wierdeg*
 ‘worthy of no sportsman nor head of state’
 (<rtl.lu> comments)
eng Pei di enges Letzebuerger würdeg as
 ‘an income, that’s worthy of a Luxembourg’
 (<rtl.lu> comments)

When it comes to the genitive complement of verbs and adjectives, the genitive does occur on a small number of occasions and seems to be used in a pseudo-productive¹³ way (productive use in restricted contexts). Nevertheless, its use may be stylistically motivated – it mostly appears in the comments section online.

4.3 Prepositions

There are hardly any prepositions governing genitives. Only in a few isolated instances PPs were encountered with a genitival NP. Again, the genitive noun *Europas*_{GEN} ‘Europe’ was used in combination with the preposition *innerhalb* ‘within’, where we again return to the question of whether this is in fact a real genitive or if this noun does have this unique lexicalized form.

Another example is the preposition *trotz* ‘in spite of’. The corpus contains 4194 instances of *trotz*, out of which only two sentences show a genitive-NP with an overt genitive marker (*s*-suffix on the article).¹⁴ One of the two examples is listed in (8).

- (8) *trotz seng-es mol méi mol manner souveränen*
 in.spite his-GEN sometime more sometime less sovereign
Oprieden-s an der Öffentlechkeet (radio news)
 presence-GEN in the public
 ‘in spite of his more or less confident presence in public’

13. The term *pseudo-productivity* is introduced here as a first tentative categorization and describes a morpho-syntactic pattern that is used within limited contexts.

14. The other instances show, in essence, dative NPs, *dass*-sentences, and case-underspecified bare nouns.

Furthermore, one single case shows the alleged postposition *wegen* governing a genitive NP (cf. (9)).

- (9) *seng-es Amt-es wegen-s* (<rtl.lu> comments)
 his-GEN position-GEN because-GEN?
 'on his own motion'

This example is very distinctive since it involves a unique postpositional use: firstly, it features the postposition *wegen* which does not appear in even the broadest Luxembourgish dictionary (LWB) and is presumably borrowed from German. Secondly, the overt genitive-*s* has misled the author of this phrase to place the same *s*-marker on the postposition itself.

The next example (cf. (10)) illustrates the defectiveness of the genitive in the Luxembourgish case system. In 2012, an author on <wikipedia.lu> wrote an article on the Mercury project. In accordance with the German source text, he or she applied the exact word structure to Luxembourgish, turning the German original text *auf Grund eines Strukturfehlers* into the literal translation *op Grond enges Strukturfeelers* 'because of a structural defect'. Almost a year later, another user changed the genitive construction into a PP, featuring the preposition *wéinst* + dative 'because of'.

- (10) a. *op Grond eng-es Strukturfeeler-s*
 on base a-GEN structural.defect-GEN
 b. *wéinst eng-em Strukturfeeler*
 because.of a-DAT structural.defect (<wikipedia.lu>)¹⁵

However, the preposition *wéinst* 'because' bears a special feature. The qualitative corpus analysis shows that *wéinst* + genitive is in fact available for personal pronouns, although the quantitative approach in this case reveals that *wéinst* + dative is preferred: *wéinst dir*_{DAT} in 66 instances, *wéinst denger*_{GEN} in 34 instances 'because of you'.

The amendment in (10) and the apparent preference structures show that – at least for prepositions – the genitive case is to be avoided. Under most circumstances, PPs or bare datives are applicable. Aside from the particular cases presented above, genitives are no longer governed by prepositions. They only appear in cases of strict German transliterations, in the construction *wéinst* + pers.pro._{GEN} or sporadically with the noun *Europas*_{GEN}. These single occurrences make it hard

15. German Wikipedia text: *Aber schon nach 59 Sekunden musste die Rakete auf Grund eines Strukturfehlers gesprengt werden* (<wikipedia.de>).

to draw the line between general variation in the system and hypercorrection, i.e. inaccurate use patterns.

4.4 Adverbials

Genitival adverbials can be simple units like *mëttwochs* ‘Wednesdays’ or grammaticalized phrases like *blannemännerchers* ‘blindly’, *gréisstendeels* ‘largely’ or *kengesfalls* ‘in no case’. Some adverbials can also appear under the form of a complex phrase: *rouege Gewëssens* ‘with a clear conscience’, *des Efteren* ‘frequently’ or *schwéieren Häerzens* ‘with a heavy heart’.

It is undisputable that these forms are structural genitives. Nevertheless, diachrony (fossilized genitives) and synchrony (actual forms used today) are colliding at this point: most of the adverbials mentioned here are derived from historical genitives. Since the aim of this study is to identify the synchronic usage patterns of genitives, these forms can be ignored. The lexicalized or idiomatized forms only prove that genitives are preserved in the Lux. language. The same holds for a range of adverbials in German (cf. the Duden-Grammar 2006: 982). A more precise analysis of the diachrony of the genitive case in Luxembourgish will be rewarding for future research purposes.

4.5 Family names

In Luxembourgish, there are different ways of referring to individuals (as family members). One way is to mention their family name first (in a genitive form) and their given name afterwards: *René* (given name) *Wohl* (family name) => *de*¹⁶ *Wohls René* (cf. Flores Flores 2014). These family name constructions are decreasing gradually because they are mostly used by older generations and almost never appear in written language (only very few occurrences in the corpus).¹⁷

The inflection suffixes sometimes depend on the phonological properties of the family name. Names on *-er* for example are assimilated to *-esch* when a genitive-*s* is added to the family name of a female family member (*-ers* > *-esch*) (11b). Short names that end on a consonant may take the weak genitive suffix *-e(n)*¹⁸ (cf. (11c)). Alternatively, the family name may remain uninflected (cf. (11d)).

16. In Luxembourgish, all forenames need to take an article. This sets the genitive-*s* apart from the so-called Saxon genitive in German, where the genitival name itself is used as a determiner.

17. The forms presented here result from my own survey conducted during the research for the LFA in 2012 (*Atlas of Luxembourgish Family Names*).

18. The *n* is dropped in certain phonological contexts (cf. Gilles 2006).

- (11) a. Genitive (strong) *den Ewerts Vic*
'Vic Ewert'
b. Genitive (assimilated) *d'Beckesch Anne*
'Anne Becker'
c. Genitive (weak) *den Trauschen Eric*
'Eric Trausch'
d. uninflected *d'Plein Mariette*
'Mariette Plein'

The semantic structure of this name construction is the following: The person bearing the last name XY is characterized as a member of the group XY. The family name, which is mentioned first, represents the affiliation to the family XY, and the given name determines the individual person in this group: *de Rocken Ed* (related group: the Rock family; individual: Ed) (cf. Bach 1952: 68–69). In some way, the family name takes the role of an attributive adjective. Ackermann (2014) provides evidence in Standard German for a formal restructuring of those two name components and argues that these forms bear a hybrid status between apposition and compound. This leads to the hypothesis that the genitive markers {-es} and {-en} could also serve as linking elements in a compound structure (for more information about the grammatical structure of name combinations cf. Berchthold & Dammel 2014; Cornelissen 2014).

This genitive construction is widely used by the older generation, making it a productive pattern to some extent. The boundaries of the construction rely on the following facts: those genitives are rarely used by the younger speakers, they mainly appear in oral speech, and they only work in contexts where both the given and family name are combined.

4.6 Partitives

Partitive pronouns are derived from Old High German (OHG, spoken ca. 750–1050) genitive pronouns (cf. Strobel 2012: 410). Their function is a balance between partitivity and indefiniteness. The strong pronoun *däers* and the weak pronoun *es* derive from OHG *ēs/is* (personal pronoun, 3SG GEN M,N). In Luxembourgish, these inflectional features still hold for the contexts they can be used in. *Däers/es* can be used for uncountable nouns of masculine or neuter gender.

- (12) *Mir hunn däärs/es genuch.(+)*
 we have PRO.PARTITIVE enough
 potential referents: *Tēi* (uncountable, M)
 ‘tea’
 Gestreits (uncountable, N)
 ‘wrangle’
 as partitive-indefinite pronoun (no specification)

The pronoun pair *dār* (strong form) and *der* (weak form) originate from OHG *thëro/dëro* (demonstrative pronoun, 3PL GEN). The pronouns can either refer to uncountable feminine nouns or to plurals (without countability restrictions).

- (13) *Mir hunn där/der* *genuch.* (+)
we have PRO.PARTITIVE enough
potential referents: *Möllech* (uncountable, SG, F)
 ‘milk’
 Äppel (countable, PL, M)
 ‘apples’

These two forms, both in their strong and weak form, are frequently used in oral and written communication. They appear in all text genres and in different contexts.

When it comes to partitive pronouns that refer to countable nouns in the plural, they mostly denote indefiniteness rather than partitivity. This is, as it were, the plural equivalent of the indefinite pronoun *eng* 'one'. Considering the example in (14), where the reference in (a) and (b) is to the same countable noun, one can see that the only parameter that changes is number. Therefore, partitive pronouns can lose their partitive aspect and be strictly referential, indefinite in their value.

- (14) a. *Et kann een der ginn*
it can one PRO.INDEF.PL give
als Enseignant. (ref.: homework, PL) (ref.: *Aufgaben*, PL)
as teacher
'You may assign some as a teacher.' (political interview)
- b. *Et kann een eng ginn als Enseignant.* (+) (ref.: *Aufgab*, SG)
it can one PRO.INDEF.SG give as teacher
'You may assign one as a teacher.' (ref.: homework, SG)
- (15) *Si huet es vill a si brauch es*
she has PRO.PART much and she needs PRO.PART
och vill. (ref.: *courage*)
also much
'She has got a lot (of it) and she needs a lot (of it).'
- (political interview) (ref.: *courage*)

In sentence (15) the weak partitive pronoun *es* is an anaphoric reference to the uncountable masculine noun *Courage* ‘courage’. The English translation shows that the pronoun *es* is somehow connected to the quantifier *vill* ‘a lot’. This fact indicates that partitivity can also be linked to quantificational relations (cf. also the quantifier *genuch* ‘enough’ in the Examples (12) and (13)).

As well as partitive pronouns, the Luxembourgish language makes use of a set of partitive articles similar to the strong forms of the partitive pronouns *däers* and *där*, bearing the same inflectional information: *däers* for uncountable singular nouns ($\langle M, N \rangle$) and *där* as a partitive article for uncountable singular nouns ($\langle F \rangle$) or plurals.

(16) *Mir hunn nach däers Fleesch.* (+)
'We still have (some of) this meat.'

(17) *Mir hunn nach där Äppel.* (+)
'We still have (some of) these apples.'

Partitive articles are often used in partitive attributes, preceded by quantifiers: *300'000 Liter däers Ueleg* '300'000 liters of this kind of oil', *keent däers Gezei* 'none of this kind of clothes', *zevill däers Gudden* 'too much of a good thing'. They also appear with iterative de-verbalized nouns: (*genuch*) *däers Gespuers* 'enough of the economizing' or (*genuch*) *däers Gestreits* 'enough of the wrangle'.

NPs containing a partitive article usually occur in the object position. Examples (18) and (19) show that partitive NPs (19a) are fully interchangeable with a regular object-NP (accusative complement) (19b).

- (18) a. *et leet een dann där kleng-er*
it lay one then ART.PART small-GEN
Steng dohinner (local council report)
stones there
- b. *et leet een dann (déi) kleng Steng dohinner* (+)
it lay one then (these) small stones there
'One places (these) little stones there, then.'
- (19) a. *gidd emol där kleng-er*
go sometime ART.PART small-GEN
*Rido's Réngel-cher*¹⁹ *kafen* (<rtl.lu> comments)
curtain rings-DIM buy
- b. *gidd emol (déi) kleng Riddosréngel-cher kafen* (+)
go sometime (these) small curtain.rings-DIM buy
'go and buy (these) small curtain rings'

The semantic contrast reveals that the sentences in (19a) refer to a certain set of stones or curtain rings, whereas (19b) stands for the mentioned item in general without specifying which. Although both sentences contain the same core information, the object in (19a) is more clearly specified because of the partitive construction. Among the small stones or curtain rings, only a certain set of these items is meant (only one specific kind).

Moreover, the constructions in (a) and (b) are formally and functionally different: aside from the different articles, the partitive NP in (a) features the inflectional suffix {-er} on the adjective *kleng*, whereas (b) has zero marking on the adjective.

19. The compound *Riddosréngelcher* 'small curtain rings' has been orthographically reanalyzed to *Rido's Réngelcher*. This seems to be very interesting since there is no apostrophic genitive in Luxembourgish.

This reverts to the matter of the genitive marking on adjectives addressed in Section 3 (cf. also Table 1). A closer look at partitive constructions reveals the following inflectional suffixes for adjectives.²⁰

Table 3. Partitive marking on the NP-level

Partitive		
M	+ {en}	<i>däers gudd-en Hunneg</i> 'good honey'
N	+ {en}	<i>däers deier-en Holz</i> 'expensive wood'
F	+ {er}	<i>där gudd-er Mëllech</i> 'good milk'
PL	+ {er}	<i>där kleng-er Betrib-er</i> 'small companies'

The partitive structures found in the Luxembourgish language are polyfunctional: They can simply be referential (and indefinite in their value), or may denote partitivity. In addition, Schanen & Zimmer (2012: 99, 154) claim that nominalized adjectives in the plural (without a determiner) take the partitive suffix *-er*: *domm* 'dumb' => *en Dommen* 'a dumb person' => Ø *Dommer* 'dumb people' (as opposed to: *déi Domm-Ø* 'the dumb people'). The partitivity issue in Luxembourgish is definitely worthy of further research in the future (cf. Döhmer 2017).²¹

How can the Luxembourgish partitive be classified? In theory, there are two different approaches: From a diachronic point of view, it may still remain a preserved subcategory of the genitive or it may represent a more or less independent system of partitives with different aspects of indefiniteness and quantification.

The idea of a further expansion of the former partitive genitive suits the current topic because in the Luxembourgish language these partitive structures developed into a broader, multi-faceted system of partitive pronouns, articles, and indefinite plurals.²² Therefore it should not be seen as a subcategory of the

20. Nevertheless, it remains unclear whether these suffixes are identical to genitive suffixes. The corpus does not contain enough adjectives in different genitive constructions to draw parallels here. This shows that partitives are very common in the Luxembourgish language.

21. Cf. Glaser (1992, 2006) and Strobel (2012) for partitive structures in different German varieties.

22. One might wonder if the expansion of the Lux. partitive system is linked to language contact with French (which has a large partitive system as well). Since the different languages in Luxembourg are clearly divided into different domains, there is no intense contact between

genitive but rather as a further stage of the partitive, resulting in an independent partitive system.

5. Summary

The data presented in this study shows that some genitives still exist on a productive basis, predominantly on the level of specific adjectival or verbal constructions and partitives. Genitive structures are mostly found in idiomatic phrases with more or less restrictive usage patterns, displaying a high degree of lexicalization. In some instances, genitive complements occur with legal terminology or other specific constructions. This restricted use can be described as a case of pseudo-productivity since the genitives appear in various contexts but with a very limited set of verbs or adjectives. As regards genitival attributes and prepositions in Luxembourgish, one can claim that they are infrequent and mostly unproductive. Several instances from the corpus turned out to be literal translations or lexicalized structures, resulting in hypercorrect or fossilized genitives. The synthetic genitive for family names is a productive pattern but its use is gradually decreasing.

According to the text types, genitives were mostly encountered in the comments sections on the web. In the spoken data (family interviews), only partitive structures were found. Altogether these partitives play a major role in Luxembourgish syntax and semantics. Yet one must thoroughly investigate whether they represent a subcategory of the genitive or a system of their own. There is no doubt that these structures are derived from a former genitive but they have evolved into a wider, polyfunctional system, gaining more and more independence from the genitive system (cf. Döhmer 2017).

The present study provides corpus-based evidence that the use of the genitive (i.e. genitive complements) is somewhat limited, whereas partitive structures (i.e. former genitives) are a very common phenomenon. The current use of the genitive as a verbal or adjectival complement might be explained by the expansion of the Luxembourgish language into the written domain leading to a greater preference for genitives due to stylistic reasons. Especially the frequency of genitives in online genres shows new dynamics in Luxembourgish written communication,

Luxembourgish and French. Another issue is the decreasing prestige of the French language in the Luxembourgish community. This decrease is for instance structurally reflected in phonological changes, i.e. the change from a more French-oriented pronunciation of Lux. consonants towards a more German-oriented articulation, as shown by Conrad (2015). There is at least no clear evidence for a language contact hypothesis in the partitivity matter.

enhanced by technical and cultural progress. The growing importance of digital communication is a challenge for the Luxembourgish community (cf. Belling 2015: 295) and prepares the ground for new styles and registers.

In conclusion, changes in the language situation result in dynamics at a structural level. The language system needs to allow for variation in order to allow structural change or, as Seiler & Salzmann (2010: 81) put it, “intra-speaker variation is normal and variation is rooted in the internal structure of grammar itself”.

This descriptive overview of the current use of genitives in the Luxembourgish language shows the obvious need for further research in the fields of Lux. language structure and grammatical categories, be it structural, comparative or diachronic.

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Frisian genitives

From Old Frisian to the modern dialects

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This article surveys the development of the genitive in Frisian. Starting from the situation in Old Frisian it discusses the fate of the genitival endings and the genitive constructions after the breakdown of the case system. Several cases of redistribution, reanalysis, refunctionalization and recultivation are presented, especially from West Frisian and Fering-Öömrang, the North Frisian dialect of Föhr and Amrum. The article tries to highlight those aspects of the development of the genitive in Frisian that might be interesting from a comparative and theoretical point of view.

1. Introduction

Departing from the assumption that for many readers Frisian is a blind spot on the map of the Germania, I present a general survey of the development of the genitive in Frisian in this article, mainly based on the still fragmentary literature, and highlight some aspects and special cases that might be interesting from a comparative and theoretical point of view.

Frisian is a West Germanic language that has survived in three geographically separated and linguistically quite diverse branches: West Frisian (ca. 400,000 speakers) in the North of the Netherlands, East Frisian (ca. 2,000 speakers) in Saterland west of the city of Oldenburg in Germany and North Frisian (ca. 8,000 speakers) on the west coast of the German federal state of Schleswig-Holstein.¹ It was once spoken in a narrow strip of land along the North Sea littoral, from the Rhine estuary to the river Weser, but from the end of the Middle Ages onwards large parts of the Frisian language area were swallowed by Low German and Dutch, West Frisia (basically the Dutch province of Fryslân) being the last vestige of the former Frisian homeland. Saterland and North Frisia, where Frisian also

1. For general information on Frisian see the relevant chapters in Munske et al. (2001).

managed to maintain itself until the present day, are actually medieval settlements outside the original homeland. Most of the data I use to illustrate the development of the genitive in Frisian are taken from West Frisian and from Fering-Öömrang, the North Frisian dialect of the islands of Föhr and Amrum.

The article is structured as follows: In Section 2, I briefly introduce the Old Frisian case system and, in particular, the forms of the genitival endings and the uses of the genitive case that form the basis of the later developments. Section 3 is a general survey of the possessive use of the former genitival endings, which will not specifically be taken into account in the rest of the article. In Section 4, I describe what happened to the distribution of the genitival endings after the collapse of the case system. In Section 5, the fate of prenominal genitives will be considered in some detail. The former genitival endings may sometimes acquire new functions; two interesting cases of the recycling of the genitive in Frisian are discussed in Section 6. The old genitival endings may also be retained or reintroduced for purist or literary reasons; I consider one such case in Section 7. Section 8 contains the conclusion.

2. The genitive in Old Frisian

Like all Old Germanic languages Old Frisian had a full-fledged four case system with two basic declension classes, strong and weak.² Consider Table 1:

Table 1. The Old Frisian case system

Strong inflection (vocalic stems)			
	MASC	FEM	NEUT
NOM SG	<i>thi sten</i> 'the stone'	<i>thiu dede</i> 'the deed'	<i>thet hus</i> 'the house'
GEN	<i>thes stenes</i>	<i>there dede</i>	<i>thes huses</i>
DAT	<i>tha stene</i>	<i>there dede</i>	<i>tha huse</i>
ACC	<i>thene sten</i>	<i>tha dede</i>	<i>thet hus</i>
NOM PL	<i>tha stenar</i>	<i>tha deda</i>	<i>tha hus</i>
GEN	<i>thera stena</i>	<i>thera deda</i>	<i>thera husa</i>
DAT	<i>tha stenum</i>	<i>tha dedum</i>	<i>tha husum</i>
ACC	<i>tha stenar</i>	<i>tha deda</i>	<i>tha hus</i>

2. Old Frisian comprises the period from the beginnings of vernacular literature in the twelfth century until 1550.

Table 1. (Continued)

<i>Weak inflection (consonant stems)</i>			
	MASC	FEM	NEUT
NOM SG	<i>thi hona</i> 'the cock'	<i>thiu tunge</i> 'the tongue'	<i>thet age</i> 'the eye'
GEN	<i>thes hona</i>	<i>there tunga</i>	<i>thes aga</i>
DAT	<i>tha hona</i>	<i>there tunga</i>	<i>tha aga</i>
ACC	<i>thene hona</i>	<i>tha tunga</i>	<i>thet age</i>
NOM PL	<i>tha hona</i>	<i>tha tunga</i>	<i>tha agen</i>
GEN	<i>thera honena</i>	<i>thera tungena</i>	<i>thera agena</i>
DAT	<i>tha honum</i>	<i>tha tungum</i>	<i>tha agum</i>
ACC	<i>tha hona</i>	<i>tha tunga</i>	<i>tha agen</i>

Table 1 simplifies the Old Frisian case system a good deal; differences between the various (short and long) vowel stems have been neglected and dialectal and temporal variation have not been taken into account.³ What is of interest here and in the following are the strong genitive singular ending *-(e)s*, the weak genitive singular ending *-a*, the strong genitive plural ending *-a* and the weak genitive plural ending *-ena*, since these are, in one way or the other, still present in the modern dialects. The genitive singular feminine ending *-e* plays no role in later developments. The other endings partly survived the breakdown of the case system at the end of the Middle Ages, but the loss of case has led to various processes of reanalysis of the former genitival endings and genitive-marked noun phrases in the modern dialects. Moreover, in cases in which the strong and weak endings still co-occurred in the dialects, the old morphological distribution according to declension was no longer available, so that a new distribution according to phonological principles had to be established (see Section 4).

There have been no in-depth studies on the use of the genitive in Old Frisian (see Bremmer 2009: 98–100 for a brief survey, and Hermann 1938: 109–115 for some further remarks), but not surprisingly the genitive shows the same basic functions as in other Old Germanic languages. First, it may express possession in a broad sense. In this function it may appear pre- and postnominally.⁴ Especially the development of prenominal genitives in the modern dialects is interesting: There is reason to believe that already in Late Old Frisian the prenominal genitive (or at

3. For a more detailed overview see Sjölin (1969: 31–32) and Bremmer (2009: 58–65).

4. Postnominal genitives were replaced by prepositional phrases with the preposition *fan*, *faan* etc. 'of' in the modern dialects.

least the genitival ending) was reanalyzed as a determiner (see Demske 2001 and Fuß 2011 for German and Weerman & de Wit 1998 for Dutch),⁵ but some phenomena in the dialects show a further reanalysis of this determiner as a modifier (cf. Section 5).

After numerals, quantifiers and measure nouns a partitive genitive appears in Old Frisian. An interesting further development of the former partitive genitive in a modern dialect will be brought up for discussion in Section 6. In the same section a further development of the old (temporal) adverbial use of the genitive will be discussed.

3. Possessive use of the former genitival endings

Before starting to discuss some special cases I briefly list a number of possessive constructions that Frisian shares with some or all other West Germanic languages and that will therefore not be discussed in any further detail.⁶

As in all Germanic languages, the former strong genitival ending *-s* has developed into a general possessive marker (cf. Hoge, this volume, Ackermann, this volume). The possessive marker, unlike the genitive case marker, shows determiner-like properties, for example, in that it induces definiteness and cannot co-occur with (other) determiners. In Frisian it is restricted to proper names, kinship terms and some pronouns:⁷

- (1) a. *Jitske-s hynder* (West Frisian)
 Jitske-POSS horse
 ‘J.’s horse’
 b. *heit-s bril*
 father-POSS glasses
 ‘father’s glasses’

5. See Hoekstra (2010) for a similar analysis of the case-marking (object-marking) of proper names in modern Mainland North Frisian dialects. Proper names in these dialects take an ending *-en* when they are used as (direct, indirect, prepositional) objects, free datives or predicates.

6. See the grammatical surveys, for example Tiersma (1999: 48–49) and Hoekstra (2001: 776).

7. Additionally one finds cases in which an appellative is personified and quasi used as a proper name. Compare West Frisian *tiids tosk* ‘time’s tooth = the ravages of time’ and *maitiids pracht* ‘the splendor of spring’.

- c. *jin-s libben*
one-POSS live
'one's live'
- (2) a. *Riiwert-s wel* (Fering-Öömrang)
Riiwert-POSS bicycle
'R's bicycle'
- b. *mam-s uugen*
mother-POSS eyes
'mother's eyes'
- c. *een-s buk*
one-POSS book
'one's book'

The possessive construction with *-s* competes with the periphrastic possessive construction, which is the only possible construction with phrasal possessors:

- (3) a. *Jitske har hynder* (West Frisian)
Jitske her horse
'J's horse'
- b. *de frou út Ljouwert har hynder*
the woman from Ljouwert her horse
'the woman from Ljouwert's horse'
- (4) a. *Riiwert sin wel* (Fering-Öömrang)
Riiwert his bicycle
'R's bicycle'
- b. *de maan faan Hamborig san hingst*
the man from Hamburg his horse
'the man from Hamburg's horse'

In addition to the former strong genitival ending *-s* we still find relics of the former weak ending *-a* (West Frisian *-e*, Fering-Öömrang *-en*) in the possessive construction:⁸

- (5) *heit-e pet* (West Frisian)
father-POSS cap
'father's cap'

8. The Modern North Frisian weak ending *-en* cannot be the direct descendant of Old Frisian *-a*; it is probably due to interference with Low German.

- (6) *aatj-en brek* (Fering-Öömrang)
 father-POSS trousers
 ‘father’s trousers’

Only in a few isolated uses the strong and the weak ending are still in complementary distribution (see Section 4), otherwise the weak ending is at most a stylistic (literary) variant of the strong one or only occurs in fixed expressions.⁹

Both in West Frisian and in Fering-Öömrang one may find a double possessive construction (as in English), but it is not in general use anymore:¹⁰

- (7) *in omke fan sin-es* (West Frisian)
 an uncle of his-POSS
 ‘an uncle of his’
- (8) *en kü faan min-en* (Fering-Öömrang)
 a cow of my-POSS
 ‘a cow of mine’

The same goes for the so-called local genitive construction (see Laperre 2012/2013) for a study of this construction in the West Germanic languages):

- (9) a. *by de bakker-s* (West Frisian)
 at the baker-POSS
 ‘at the baker’s’
 b. *te uz-es*
 at our-POSS
 ‘at ours’
- (10) a. *at Iark-en* (Fering-Öömrang)
 at Iark-POSS
 ‘at I.’s’
 b. *at üüs-en*
 at our-POSS
 ‘at ours’

This concludes the overview of the possessive use of the former genitival endings in Modern Frisian.

9. Compare, for example, Fering-Öömrang *faan mamen eeg* ‘on the maternal side’ or West Frisian *nei beppe’ kelder gean* ‘to go down the drain (lit. to go to grandmother’s cellar)’.

10. Note that *sines* in (7) and *minen* in (8) are the substantively used forms of the possessive pronouns *syn* ‘his’ and *min* ‘my’ respectively.

4. The redistribution of the former strong and weak genitival endings

With the disappearance of the declension classes the morphological trigger for the distribution of the former strong and weak genitival endings was lost and – as far as the endings survived at all – their distribution was rearranged according to phonological principles. I will illustrate this in a discussion of gametonym (spouse name) formation in West Frisian (*Ruerde Boukje* ‘Boukje, wife of Ruerd’) and patronym formation in Fering-Öömrang (*Negels Rörden* ‘Negels, son of Rörd’).

4.1 Gametonyms in West Frisian

As we have seen in Section 3 West Frisian still shows the relics of the former weak genitival ending alongside the general possessive suffix *-s*, the former strong genitival ending. The weak ending *-e* only appears after proper names and kinship terms ending in a stressed syllable or in schwa. In these cases it may occur next to the ending *-s* as a literary variant:

- | | | | |
|------|---------------------|--------------|---------------------------|
| (11) | neutral | | literary |
| a. | <i>Ruerd-s</i> | <i>boek</i> | / <i>Ruerde boek</i> |
| | Ruerd-POSS | book | |
| | ‘Ruerd’s book’ | | |
| b. | <i>pake-s</i> | <i>auto</i> | / <i>pake’ auto</i> |
| | grandfather-POSS | car | |
| | ‘grandfather’s car’ | | |
| c. | <i>Mindert-s</i> | <i>knyft</i> | / * <i>Minderte knyft</i> |
| | Mindert-POSS | knife | |
| | ‘Mindert’s knife’ | | |
| d. | <i>Hindrik-s</i> | <i>noas</i> | / * <i>Hindrikke noas</i> |
| | Hindrik-POSS | nose | |
| | ‘Hindrik’s nose’ | | |

The present situation is the result of a development in which the former complementary distribution between both endings was disturbed by the fact that *-s* intruded into the contexts formerly restricted to *-e*.

There is only one case in which *-s* and *-e* were still in complementary distribution in West Frisian until recently, namely in the gametonym (spouse name) construction (Tiersma 1999: 49). In this construction the husband’s name with the possessive ending *-s* or *-e* precedes the name of his wife:

- (12) a. *Ruerd-e Gryt* (**Ruerds Gryt*)
 Ruerd-POSS Gryt
 ‘Gryt, wife of Ruerd’

- b. *Geale' Sjoukje* (**Geales Sjoukje*)
Geale.POSS Sjoukje
 'Sjoukje, wife of Geale'
- c. *Mindert-s Teatske* (**Minderte Teatske*)
Mindert-POSS Teatske
 'Teatske, wife of Mindert'
- d. *Hindrik-s Jel* (**Hindrikke Jel*)
Hindrik-POSS Jel
 'Jel, wife of Hindrik'

Note that phrases like *Ruerds Gryt* and *Geales Sjoukje* were only ungrammatical in the gametonym construction; in a case in which, e.g., *Ruerds Gryt* would mean 'Gryt, the daughter of Ruerd' or 'Gryt, the girlfriend of Ruerd' (where the reverse would be possible as well: *Gryts Ruerd* 'Ruerd, the son of Gryt etc.')., these phrases were unproblematic. For obvious emancipatory reasons the gametonym construction has become obsolete in West Frisian, so that nowadays in the relevant context *Ruerds Gryt* might actually be used as 'Gryt, the wife of Ruerd' as well.

4.2 Patronymys in Fering-Öömrang

Another reordering of the strong and the weak genitival endings is found in patronym formation in Fering-Öömrang (Hoekstra 1995). Patronymys followed a son's name, e.g. *Iark Janen* 'Iark, son of Jan'. The use of patronyms was common on Föhr and Amrum until the end of the nineteenth century and many patronyms still occur in a petrified form in family names. The distribution of the endings basically follows the 'trochaic principle' (build a trochee if you can and do not unnecessarily destroy one); this implies that the ending *-s* is attached to names that are trochaic already (in order not to destroy the trochee), whereas the ending *-en* is attached to monosyllabic names and names ending in a stressed syllable (in order to build a trochee):

- (13) a. *Tüke* – *Tükis*
Toonklew – *Toonklews*
Tjidel – *Tjidels*
Rakmer – *Rakmers*
Öösem – *Öösems*
Jirin – *Jirins*
Faalting – *Faaltings*
- b. *Iark* – *Iarken*
Jan – *Janen*
Ook – *Ooken*
Mar'tiin – *Martiinen*

However, the ending *-s* is only suffixed to trochaic names ending in a vowel or a sonorant consonant. In other cases, i.e. when the base word ends in an obstruent consonant, the ending *-en* appears:

- (14) *Negels* – *Negelsen*
Henerk – *Henerken*
Tuurelk – *Tuurelken*
Aarest – *Aaresten*
Kleement – *Kleementen*

In these cases the sonority hierarchy overrides the ‘trochaic principle’: if adding *-s* would result in a final consonant cluster with rising sonority or with similar sonority (for example, with two fricatives), *-en* is chosen instead.

Finally, names ending in *-ert*, with which *-en* would actually be the preferable ending from a phonological point of view, morphologically select *-s*:

- (15) *Foolkert* – *Foolkerts*
Riiwert – *Riiwerts*

Interestingly, this distribution is mirrored by that of the plural endings *-s* and *-en* in Dutch (Hoekstra 2011).¹¹ Plural formation in Dutch is basically triggered by the trochaic principle (van Haeringen 1947; De Haas & Trommelen 1993; Kürschner 2006): trochaic base words ending in a vowel or a sonorant consonant take *-s*, whereas base words ending in stressed syllable take *-en* (cf. (16a)). The sonority hierarchy must be respected however: trochaic base words ending in an obstruent consonant take *-en* (cf. (16b)). And base words with the suffix *-erd/-aard* take *-s* by morphological selection (cf. (16c)).¹²

- (16) a. *auto* – *auto's*
‘car’
ketel – *ketels*
‘kettle’
kater – *katers*
‘tomcat’
bezem – *bezems*
‘broom’

11. Plural formation in West Frisian is quite similar to that in Dutch: West Frisian has the two plural endings *-s* and *-en* and their distribution is basically the same as in Dutch. For some interesting differences, see Hoekstra (2011).

12. Why the suffixes *-erd/-aard* in Dutch and *-ert* in Fering-Öömrang have this special status remains dark to me.

- | | | | |
|----|-------------------|---|------------------|
| | <i>baken</i> | – | <i>bakens</i> |
| | ‘beacon’ | | |
| | <i>boek</i> | – | <i>boeken</i> |
| | ‘book’ | | |
| | <i>kanaal</i> | – | <i>kanalen</i> |
| | ‘canal’ | | |
| b. | <i>dreumes</i> | – | <i>dreumesen</i> |
| | ‘toddler’ | | |
| | <i>havik</i> | – | <i>haviken</i> |
| | ‘hawk’ | | |
| | <i>lemmet</i> | – | <i>lemmeten</i> |
| | ‘blade’ (knife) | | |
| c. | <i>zeikerd</i> | – | <i>zeikerds</i> |
| | ‘pain in the ass’ | | |
| | <i>luiaard</i> | – | <i>luiaards</i> |
| | ‘lazy dog’ | | |

The parallel between patronym formation in Fering-Öömrang and plural formation in Dutch shows that the distribution of the endings is triggered by general phonological principles.¹³

One might wonder why the distribution of the former strong and weak genitival endings is not similar with gametonym formation in West Frisian and patronym formation in Fering-Öömrang. I suppose that the distribution in gametonyms still partly reflects the historical situation in which weak man’s names ending in *-a* in the nominative took the weak genitival ending *-a* (names like *Gāla*, modern *Geale*, were inflected like *hona* ‘cock’ in Table 1). In Modern Frisian this situation is perpetuated in so far that names ending in schwa, nearly all of them trochaic,¹⁴ chose the weak ending. This ending fuses with the schwa of the base and so does not destroy the original trochee. The use of the weak ending has been extended, however, to names ending in a stressed syllable where adding *-e* results in a trochee. Trochaic names not ending in schwa take *-s*. So with gametonyms the distribution of the endings is basically triggered by the ‘trochaic principle’, but the

13. Although Fering-Öömrang shows a good deal of lexical loans from Dutch from the 17th and 18th centuries, as many seamen from the North Frisian islands were employed on Dutch ships (Hoekstra 2004), influence of the distribution of the Dutch plural endings on the distribution of the Fering-Öömrang patronym endings is obviously out of the question.

14. The only exception are a number of names ending in *-ele* (e.g. *Oebele*, *Rikele*, *Nammele*). Note, however, that these names are quite often realized as a trochee (*Oeble* etc.).

stem extension *-e* of names ending in *-e* still morphologically selects the weak ending *-e*.¹⁵ In patronyms the distribution has been completely phonologized (barring the names ending in *-ert*) in that the ‘trochaic principle’ and the sonority hierarchy take care of it. This may have something to do with the fact that word-final schwa had been regularly deleted in Fering-Öömrang at the close of the Middle Ages.¹⁶

5. Reanalysis of prenominal genitives

Already in Old Frisian, prenominal genitives (or the genitival endings) were reanalyzed as determiners. As such they survived in the possessive construction (cf. Section 3) and related constructions like the gametonym construction (Section 4.1), but they could also undergo further reanalysis into a modifier. In this Section I discuss three cases in Frisian in which a former prenominal genitive has become a modifier of some sort.

5.1 Genitive compounds in West Frisian

It is well-known that prenominal genitives could sometimes be reanalyzed as the first element of a compound (e.g. *des Königs Tochter* > (*die*) *Königstochter*) and that in this context the former genitival endings could become productive as linking elements (e.g. *Liebeskummer*) (cf., among many others, Demske 2001, Section 4.5, Kürschner & Szczepaniak 2013 and Kopf, this volume). West Frisian possesses a type of compound which in certain respects is in between a noun phrase with a prenominal genitive and a compound, the so-called *genitive compounds* (Hoekstra 2003). Here are some first examples:

- (17) *jasbûse*
 ‘pocket of the coat’
 keamersdoar
 ‘door of the living room’
 foarketine
 ‘tooth of the fork’

15. See Hoekstra (2011) for evidence that the stem extension *-e* with nouns also selects the plural ending *-en* in West Frisian.

16. Yet another (purely phonological) distribution between the strong and the weak endings (between *-s* and *-e(n)*) is (or was) found in the possessive construction in a number of Dutch dialects (see, among many others, Overdiep 1940: 108–110, for the dialect of Katwijk aan Zee). Here the strong ending is attached to nouns ending in a vowel and the weak ending to those ending in a consonant.

At face value these compounds do not differ greatly from genuine NN-compounds like the ones in (18):

- (18) *tsiisbrogge*
 ‘cheese sandwich’
 keningsdochter
 ‘king’s daughter, princess’
 berneboek
 ‘children’s book’

A first (phonological) difference shows up, however, when the compounds in (17) and (18) are pronounced: whereas genuine NN-compounds are stressed on the first component (e.g. *’tsiisbrogge*), genitive compounds are invariably stressed on the second one (e.g. *jas’bûse*).

A morphological difference between the two types of compound concerns the presence and the status of the elements *-s* and *-e*. In genitive compounds the first component always takes one of the genitival endings *-s* or *-e* (e.g. *keamers’doar*, *foarke’tine*).¹⁷ There are only few exceptions: no ending appears, for example, when the first component ends in *-s* (e.g. *jas’bûse*). There is some evidence that the genitival endings *-s* and *-e* in genitive compounds should not be identified with the linking elements *-s* and *-e* in genuine compounds (e.g. *’keningsdochter*, *’berneboek*). Genuine NN-compounds with *koken* ‘kitchen’ as their first component never contain a linking element *-s* (cf. (19a)), whereas in genitive compounds the genitival ending *-s* is obligatory (cf. (19b)):

- (19) a. *’kokenfaam*
 ‘kitchen maid’
 ’kokensâlt
 ‘kitchen salt’
 etc.
 b. *kokens’doar*
 ‘door of the kitchen’
 kokens’flier
 ‘floor of the kitchen’
 etc.

17. The ending *-e* appears with nouns already ending in *-e* (e.g. *foarke* ‘fork’ – *foarke’tine* ‘tooth of the fork’). That we are not dealing with simple NN-compounds here is shown by the fact that *-e* in genitive compounds can never be deleted, whereas this is sometimes possible in simple NN-compounds (see below in the main text).

The final schwa of the first component of genuine NN-compounds can sometimes be deleted (cf. (20a)), but in genitive compounds schwa is never deleted (cf. (20b)):

- (20) a. *'tsjerk(e)toer*
 'church tower, steeple'
 b. *tsjerk*(e)'toer*
 'tower of the church'

Genitive compounds and genuine NN-compounds further differ in their lexical meaning. Whereas in genuine NN-compounds the semantic relation between the two components can be very diverse, there is always a part-whole relation between the components of genitive compounds. Compare:

- | | |
|------------------------------|---|
| (21) parts of the house: | <i>kelders'trep</i>
'stairs of the cellar' |
| parts of furniture: | <i>taffels'blêd</i>
'top of the table' |
| parts of tools and gear: | <i>lodde'fjem</i>
'handle of the shovel' |
| parts of clothes: | <i>broeks'bokse</i>
'leg of the trousers' |
| parts of body parts: | <i>fingers'einen</i>
'tips of the fingers' |
| parts of the yard: | <i>hiems'hikke</i>
'gate of the yard' |
| parts of natural objects: | <i>mars'wâl</i>
'shore of the lake' |
| parts of construction works: | <i>dyks'foet</i>
'foot of the dike' |

The most striking difference between genitive compounds and genuine NN-compounds is referential in nature: Whereas the first component of genuine NN-compounds is an anaphoric island, i.e. non-referential, the first component of genitive compounds is necessarily definite-specific and forces the definiteness/specificity of the whole compound.¹⁸ So *keamers'doar* is not simply a 'living room

18. This further implies that if a genitive compound is the first part of a compound, the latter can only be a genitive compound itself:

- (i) *hoks'doar*
 'door of the shed'
 hoksdoars'kaai
 'the key of the door of the shed'

door', but rather the 'door of the living room', i.e. the door of the living room in our house or of some other salient living room in the discourse context. Consider the minimal pair in (22):

- (22) a. *kokens' doar*
'door of the kitchen'
b. *'kokendoar*
'kitchen door'

Whereas *kokens' doar* is the door of (for example) our kitchen, *'kokendoar* is a door as it is found in kitchens. Also compare the example in (20) once again: whereas *'tsjerk(e)toer* is a steeple, a tower as you find them with churches, *tsjerke'toer* is the tower of the church in (for example) our village.

Genitive compounds derive from prenominal genitive constructions. In (23) this is schematically illustrated for *keamersdoar* 'door of the living room':

- (23) [[*thes kames*] *dore*] prenominal genitive construction
↓
[[*de keamers*] *doar*] loss of genitive case
↓
[*de* [*keamersdoar*]] reanalysis, lexicalization

But unlike compounds such as *keningsdochter*, they are not (yet) complete words, but some type of (lexical) phrases. They combine a clear phrasal property (referentiality) with word properties (non-modifiability of the compound elements, word stress, back up percolation of the definiteness feature from the non-head). In Hoekstra (2003) I have therefore analyzed them as lexical Genitive Agreement Phrases in which the prenominal DP contains a defective (empty) determiner (D_{\emptyset}) that has to pick up its reference from the discourse context:

- (24) [_{DP} *de* [_{AgRP} [_{DP} D_{\emptyset} *keamer*] [-s [_{NP} *doar*]]]]

If this analysis holds water, then what looks like the first element of a compound might actually still be a (heavily lexicalized) prenominal genitive.

5.2 Geographical adjectives and inhabitant names in North Frisian

Let us now have a look at a case in which the reanalysis of the determiner does not result in the first element of a compound, but in an adjective-like element. In Old Frisian inhabitant names derived from a place-name by adding the suffix *-ing* could occur in prenominal position with the genitive plural ending *-a* (INH represents the inhabitant suffix):

- (25) *Aestereyng-a* *meynthe* [O III, 1]
 Easterein-INH.GEN.PL community
 'the community of the inhabitants of Easterein (Eastend)'

The genitive plural ending *-a* was directly added to place names ending in *-em* to derive the inhabitant name in prenominal position:

- (26) *Bosemm-a* *dyc* [O II, 14]
 Boazem-INH.GEN.PL dike
 'the dike of the inhabitants of Boazum'

Both the prenominal genitive ending in *-inga* and the one in *-a*, which probably should still be analyzed as determiners, could be used pronominally (without an article) in Old Frisian:

- (27) a. ... *ande is that sake that these dijk warde mit machte dullen*
 ... and is that case that this dike is with might cut
and Aestereyng-h-a that naut keran en mogen [O III, 1]
 and Easterein-INH.GEN.PL that not prevent NEG may
 '... and in case this dike is cut by a crowd of people and the inhabitants of Easterein cannot prevent this'
- b. *End als dyo greetne tho Lytthya Werum wessen haet*
 And when the office.of.judge in Lytsewierrum been has
soe schellet Bosemm-a hebben [O II, 14]
 so shall.it Boazem-INH.GEN.PL have
 'And when the office of judge has been in Lytsewierrum, the inhabitants of Boazum shall have it.'

In North Frisian these former plural genitive forms in prenominal position were reanalyzed as geographical adjectives with the suffixes *-inge* and *-e*. They still betray their origin as nouns in that they cannot be inflected. The 'substantivized' geographical adjectives are used as inhabitant names as well in North Frisian. Compare the following derivations from the Bökingharde Frisian place-name *Nai-bel* and the Karrharde Frisian place name *Ståårem*:

- (28) a. *Naibel* *naiblinge*
 'Niebüll' 'from Niebüll (adj.)'
- b. *en naiblinge dräng* (cf. *en gruten dräng*)
 'a boy from Niebüll' ('a big boy')
- c. *en naiblinge* (cf. *en gruten*)
 'an inhabitant of Niebüll' ('a big one')
- d. *di/jü/da naiblinge*
 'the inhabitant of Niebüll (masc. & fem.), the inhabitants of Niebüll'

- (29) a. *Ståårem* *stååreme*
 ‘Stadum’ ‘from Stadum (adj.)’
 b. *jü stååreme schörk*
 ‘the Stadum church’
 c. *di/jü/da stååreme*
 ‘the inhabitant of Stadum (masc. & fem.), the inhabitants of Stadum’

The original distribution between *-e* (after place names ending in *-em*) and *-inge* (elsewhere) was probably lost in North Frisian in the course of the eighteenth and nineteenth century. In the nineteenth century the suffix *-e* was still found in the Karrharde dialect. In other North Frisian dialects it had been replaced by other suffixes (*-inge* or *-er* on the North Frisian mainland, *-büür/böör* on the North Frisian islands). For a detailed description of geographical adjectives and inhabitant names in North Frisian see Hoekstra (2015).

5.3 The genitive of family names in West Frisian

In the modern possessive construction the possessive-marked proper name could sometimes be reanalyzed as a modifier as well. This is quite nicely shown by the genitive of family names in West Frisian (Hoekstra 2006). Like other proper names family names can be used in the canonical possessive construction with the former strong genitival ending *-s* (cf. (30a)), but alongside this construction we have one in which the possessive-marked family name is preceded by the definite article (cf. (30b)):

- (30) a. *Terpstra's fammen*
'Terpstra's girls (i.e daughters)'
b. *de Terpstra's fammen*
'the Terpstra girls (i.e. sisters)'

Whereas in the former construction *Terpstra's* is referential, referring as it does to a person called Terpstra, in the latter *Terpstra's* modifies the noun, denoting something like 'of the Terpstra family'. In the former construction the choice of the head noun is basically free (*Terpstra's hûs* 'Terpstra's house', *Terpstra's kninen* 'Terpstra's rabbits' etc.), in the latter it is restricted to a small number of plural or collective nouns, such as *fammen* 'girls (sisters)', *jonges* 'boys (brothers)', *folk* 'folk, family', *laach* 'family' and *erven* 'heirs' that can be typically modified by a family name. In the former construction an adjective can intervene between *Terpstra's* and *fammen* (cf. (31a)); in the latter this is impossible (cf. (31b)) and the adjective must be placed between the article and *Terpstra's* (cf. (31c)):

- (31) a. *Terpstra's tsjeppe fammen*
'Terpstra's pretty daughters'

- b. **de Terpstra's tsjeppe fammen*
 'the pretty Terpstra sisters'
- c. *de tsjeppe Terpstra's fammen*
 'the pretty Terpstra sisters'

These properties indicate that a reanalysis has taken place, in which a determiner became transformed into a modifier, to make way for a new determiner (the definite article):

- (32) *Terpstra's fammen* > *de Terpstra's fammen*
 Det NP Det Mod NP

Similar developments can be found in other Germanic languages. Compare so-called descriptive genitives, such as *a farmer's son*, in English (Rosenbach 2006) or so-called inserted genitives, such as *en handlingens man* 'a man of action', in Swedish (Koptevskaja-Tamm 2003; Koptevskaja-Tamm & Rosenbach 2006).

6. Recycling of the former genitival endings

After the collapse of the Old Frisian case system some case endings could survive in other functions. In this Section I discuss two cases of such refunctionalization of the former strong genitival ending *-s* in Frisian.

6.1 The ending *-s* as a countability marker in Fering-Öömrang

Fering-Öömrang possesses a suffix *-s* that can be used to mark nouns as non-count (Hoekstra 1995). Compare the word pairs in (33), in which the first is a count noun and the second a mass (non-count) noun. Derivations with the countability marker include many words for (a) food, (b) rope and thread, and (c) waste, but a few abstract nouns (d) may take the suffix *-s* as well:

- (33) a. *marig* *marigs*
 'sausage' 'cold cut'
- liwer* *liwers*
 'liver (body part)' 'liver (food)'
- aapel* *aapels*
 'apple (fruit)' 'apple (food)'
- kuuk* *kuuks*
 'cake (baking product)' 'cake (food)'
- b. *tuum* *tuums*
 '(piece of) rope' 'rope (material)'
- triad* *triads*
 '(piece of) thread' 'thread (material)'

c.	<i>skel</i> 'shell (nut), skin (fruit)' <i>hidj</i> '(human) skin'	<i>skels</i> 'shell, skin (waste)' <i>hidjs</i> '(milk) skin'
d.	<i>steed</i> 'place' <i>wonter</i> 'winter (season)'	<i>steeds</i> 'space' <i>wonters</i> 'winter (frost, snow and ice)'

As a rule, mass nouns are neuter in Fering-Öömrang, as in North Frisian in general (cf. Löfstedt 1968: 9–10), so when the base word is a masculine noun adding the countability marker leads to a gender change:

- (34) *a skink at skinks*
'ham' 'ham (food)'

The use of countability marking with *-s* is rather variable in Fering-Öömrang: not every mass noun takes *-s* (cf. (35)) and not every speaker uses *-s* with every noun that may in principle have it.¹⁹

- (35)
- | | |
|------------------|---------------------|
| <i>a eerd</i> | <i>at eerd</i> |
| 'earth (planet)' | 'dust' |
| <i>a fögel</i> | <i>at fögel</i> |
| 'bird (animal)' | 'fowl (esp. ducks)' |
| <i>a sees</i> | <i>at sees</i> |
| 'cheese' | 'cheese (food)' |
| <i>a hias</i> | <i>at hias</i> |
| 'heath, moor' | 'heather' |
| <i>a sliak</i> | <i>at sliak</i> |
| 'blow' | 'beating' |

Although they are not fixed to this position, most mass nouns on *-s* occur quite easily after a quantifier or a measure noun (e.g. *en stak kuuks* 'a piece of cake'). This suggests that the origin of the countability marker could be the Old Frisian partitive genitive. In Old Frisian nouns in the complement of a quantifier or a measure noun were in the (partitive) genitive case:

- (36) *En tonna bjaer-s* (O I, 306)
a ton beer-GEN.SG
‘a ton of beer’

19. The countability marker can also be tautologically added sometimes to base words which are already mass nouns (e.g. *sakelaad(s)* ‘chocolate’).

- fiftich klinckerden redi-s* *jeldi-s* (O IV, 95)
 fifty *klinckerden* ready-GEN.SG money-GEN.SG
 ‘fifty *klinckerden* cash’
- fe hus-a* *ieftha fule hus-a* (B I 93, 1)
 few house-GEN.PL or many house-GEN.PL
 ‘few houses or many houses’

The complement of a quantifier or measure noun is always a mass noun. This is shown, for example, by the fact that a plural noun cannot be counted in this context:

- (37) *en seek (*twuntig) aapler*
 a sack twenty apples
 ‘a sack of (twenty) apples’

As the Old Frisian case system broke down, the partitive genitival ending could therefore readily be reanalyzed as a countability marker. As a countability marker it was no longer bound to the complement of quantifiers and measure nouns. A mass noun like *aapels* ‘apple’ can appear after the measure noun *stak* ‘piece’ (cf. (38a)), but it may also show up in other contexts (cf. (38b)):

- (38) a. *en stak aapel-s*
 a piece apple-MASS
 ‘a piece of apple’
- b. *As diar aapel-s mad?*
 is there apple-MASS among
 ‘is there apple in it?’

6.2 The ending -s in temporal adverbs in West Frisian

Sometimes the old use of the genitival ending may be partly retained and partly extended to other functions. In Old Frisian the genitive could be used to mark temporal adverbials. Compare:

- (39) a. *the-s* *other-es* *di-s* (R I, XI, 3)
 the-GEN.SG other-GEN.SG day-GEN.SG
 ‘on the second day’
- b. *the nesta Wernisdey-s* *jefter Pascha moern* (O I, 23)
 the next Wednesday-GEN.SG. after Easter morning
 ‘the next Wednesday after Easter morning’
- c. *hocker-s* *jer-s* (O I, 96)
 which-GEN.SG year-GEN.SG
 ‘in whichever year’

The use of the strong genitival ending to mark temporal adverb(ial)s has been retained in Modern West Frisian, but modified and extended in a quite intricate way (Hoekstra 1989). The suffix *-s* may be added to nouns expressing a time unit in order to form temporal adverbs. One might assume that a temporal adverb like *jûns* (from *jûn* ‘evening’) is in principle three-way ambiguous. It may have an indefinite reading (‘some evening’), a definite-specific one (‘on the evening of a certain day’) and a definite-non-specific one (‘in the evening in general’ = ‘every evening’). In actual use it has the last reading (cf. (40a)). The definite-specific reading is blocked by the construction in (40b), in which the definite article *de* originates from the Old Frisian genitive definite article *thes/des* (on this blocking see Hoekstra 2003: 248). The indefinite meaning is triggered by the prefix *okker-*, which derives from Old Frisian *hokker* ‘which(ever)’, in expressions like (40c):

- (40) a. *jûns*
 ‘every evening’
 Example:
 Wy ite jûn-s om healwei sân.
 We eat evening-s around halfway seven
 ‘We eat every evening at half past six.’
- b. *de jûns*
 ‘on the evening (of a certain day)’
 Example:
 De jûn-s haw ik doe nei de film west.
 The evening-s have I then to the film been
 ‘Then, in the evening, I went to the cinema.’
- c. *okkerjûns*
 ‘on some evening (in the near past), some evenings ago’
 Example:
 Okker-jûn-s hie er in âlde maat troffen.
 okker-evening-s had he an old friend met
 ‘Lately, one evening, he met an old friend.’

The definite-non-specific reading only occurs if the base noun denotes a discontinuous time unit like *moarn* ‘morning’, *woarnsdei* ‘Wednesday’, *wykein* ‘weekend’, *summer* ‘summer’ etc., i.e. a time unit that is not immediately followed by the same time unit. A derivation with the suffix *-s* on the basis of a noun denoting a continuous time unit (like *oere* ‘hour’, *wike* ‘week’, *jier* ‘year’ etc.) in itself could only mean ‘always’ and would be uninformative in the light of an existing word like *altyd* ‘always’. Nevertheless, derivations with *-s* from nouns denoting a continuous time unit do occur in West Frisian, but they must be accompanied by a numeral expression to trigger a distributive reading. Compare:

- (41) a. *trije kear wyk-s*
 three time week-s
 ‘three times a week’
 b. *120 kilometer oer-s*
 120 kilometer hour-s
 ‘120 km an hour’

Note that a definite-specific reading is possible with these derivations, although not with a bare definite article, but with a demonstrative pronoun (*dy wyks* ‘in that week’) or with the definite article and some modifying expression (*deselde wyks* ‘in the same week’, *de wyks nei Krysttid* ‘in the week after Christmas’).²⁰ Prefixation with *okker-*, triggering the indefinite reading, is unproblematic (*okkerjiers* ‘some years ago’).

In the case of the word *dei* ‘day’, which can denote both a discontinuous time unit (‘daytime’) and a continuous one (‘natural day, 24 hours’), the temporal adverb *deis* can occur in every reading:

- (42) a. *deis*
 ‘in the daytime’
 b. *dy deis*
 ‘on that day’
 c. *okkerdeis*
 ‘some days ago (on a day in the near past)’
 d. *trije piltsjes deis*
 ‘three pills a day’

7. Literary use of the genitive

West Frisian is the only Frisian dialect that developed a standard language and a full-grown literature. One notable characteristic of a standard language is that it shows stylistic differentiation. The standard language, for example, may preserve and cultivate forms not normally used in the spoken language any longer and put them into use for special stylistic purposes. In Sections 3 and 4.1 we have already seen one example of this: the literary use of the weak genitival ending *-e* in the

20. A demonstrative pronoun or a modifying expression are also possible with temporal adverbs on *-s*, deriving from nouns denoting a discontinuous time unit (*dy maitiids* ‘in that spring’, *deselde maitiids* ‘in the same spring’, *de maitiids nei har trouwen* ‘in the spring after their marriage’) alongside the bare definite article (*de maitiids* ‘in the spring (of a certain year)’).

possessive construction. An even more striking example is the use of the genitive plural ending *-ene* in West Frisian (Hoekstra 2006).

At first sight the Old Frisian genitive plural ending *-ena* seems to have survived in West Frisian as *-ene* in cases like those in (43):

- | | | |
|------|---------------|------------------------------------|
| (43) | <i>Fries</i> | (<i>it</i>) <i>Friezene folk</i> |
| | 'Frisian' | 'the Frisian people' |
| | <i>minske</i> | (<i>it</i>) <i>minskene lot</i> |
| | 'man' | 'human fate' |
| | <i>god</i> | (<i>de</i>) <i>goadene grime</i> |
| | 'god' | 'the gods' wrath' |
| | <i>faam</i> | (<i>de</i>) <i>fammene pronk</i> |
| | 'girl' | 'the girls' finery' |

The genitive plural may occur with and without the definite article, which indicates that the former determiner has been partly reanalyzed as a modifier (compare the cases of reanalysis discussed in Section 5). An adjective can only intervene between the genitive plural and the noun if the genitive plural is a determiner, not if it has become a modifier itself (*minskene swier lot* 'man's hard fate', **it minskene swier lot*, *it swiere minskene lot* 'the hard human fate'). Genitive plural constructions can sometimes function as stylistically heightened variants of noun phrases with an adjective or of compounds: ((*it*) *Friezene folk* – *it Fryske folk* 'the Frisian people', (*it*) *minskene lot* – *it minskelot* 'human fate').

The genitive plural construction shows many restrictions, however. First, the ending *-ene* only appears with nouns that are human, most often with *minske* 'man' and *Fries* 'Frisian'. Secondly, the ending can only be attached to nouns that have a plural ending *-en*; thus *bern* 'child', which has a zero plural, cannot have a genitive plural ending (*(*de*) *bernene wille* 'the children's joy').²¹ And thirdly, the genitive plural is only used in high poetic style.

The history of the construction shows that the genitive plural in West Frisian has not 'naturally' developed from Old Frisian, but has been revived and recultivated more than once. In Modern West Frisian the genitive plural first occurs in the work of the Renaissance and Baroque poet Gysbert Japix (1603–1666), in which it probably is an archaic feature already. It is not used by other authors of the seventeenth and eighteenth century. In the nineteenth century the genitive

21. This might suggest that synchronically so-called genitive plurals are actually derived from plural nouns on *-en* by adding the weak genitival ending *-e*. This would not fit in with the general distribution of *-e* (after proper names ending in either schwa or a stressed syllable), but one might hypothesize that *-e* is morphologically selected by the plural ending *-en*. The question whether such an approach is feasible must be left to future research here.

plural is revived by romantic authors imitating Gysbert Japix and is codified in the first (historicizing) Frisian grammars. At the beginning of the twentieth century the 'Jongfriezen' (Young Frisians), a literary and language political movement that wanted to introduce Frisian in all social domains and produce a high literature, started cultivating the genitive plural in their texts. Ever since it has remained a feature of high poetic style in West Frisian.

The use of the genitive plural ending in West Frisian may perhaps be compared with the use of the genitive plural article *der* (and other genitive articles) in Dutch (e.g. *de koning der Nederlanden* 'the king of the Netherlands'), which is also restricted to higher stylistic registers (cf. Scott 2014).²²

8. Conclusion

In this article I have surveyed a number of aspects of the development of the genitive in Frisian: the distribution of the former genitival endings, the development of prenominal genitives from determiner to modifier, functional changes of the former genitival endings and the literary use of the genitive. I hope to have shown that Frisian with its wide spectrum of variation, ranging from highly threatened home dialects to an aspiring 'Hochsprache' like West Frisian, may offer interesting insights in the development of the genitive in Germanic. The Frisian dialects quite often represent a microcosm that contains all the phenomena which are found in other (West) Germanic languages as well, but in quite some cases also the little extra that may help us to understand these phenomena better.

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Genitive markers and their destinies

On the motivation of genitive-s omission in Contemporary German

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In Contemporary German, strong masculine and neuter nouns in genitive phrases either take a suffix (-s or -es) or remain uninflected for case (e.g. *Nutzung d-es Internet-s* vs. *Nutzung d-es Internet-Ø*, 'use of the-GEN.SG internet-GEN.SG/Ø'). This paper is concerned with a corpus-based description of this variation on the basis of which an explanation of the phenomenon is given. Using data taken from synchronic and diachronic corpora (*DECOW2012* and *Deutsches Textarchiv*) and psycholinguistic evidence from a self-paced reading task it is shown that there is a functional motivation for the fact that a well-delimited group of nouns (i.e. peripheral nouns, such as loan words, abbreviations and proper names) tend to remain uninflected for case whilst prototypical German nouns are almost always inflected for genitive case. This variation results from the competition between two motivations: syntactic agreement on the one hand and a hitherto not very well described factor called morphological schema constancy on the other hand. The latter refers to the maintenance of word form stability, e.g., through the avoidance of inflectional suffixes. However, these motivations are weighted differently depending on the nature of the noun in question: Since syntactic agreement is still important for the grammatical system, prototypical nouns are unaffected by -s omission. Thus, in general, the genitive singular resists the general German(ic) tendency towards a reduction of nominal case markers so far.

1. Introduction

In the history of German and its precursors there has always been a tendency towards a reduction of nominal case markers, both paradigmatically and syntagmatically. The most recent example of complete syntagmatic loss of a specific case marker is the disappearance of the dative-*e*, which was still quite common in Early New High German, but is very archaic in Contemporary German (cf. (1) and (2)).¹

1. There are some remnants of the dative-*e* in fixed expressions like *in aller Mund-e sein* ('to be on everybody's lips'). Furthermore, the archaic status of the morpheme is sometimes used to comic effect (cf. Eichinger 2013: 140–147).

- (1) *Ein Männlein steht im Wald-e* (traditional German folk song)
A little.man stands in.the forest-DAT.SG
'A little man stands in the forest'
- (2) *Ein Hirsch steht im Wald.*
A deer stands in.the forest
'A deer stands in the forest.'

Due to this development, nominal case marking is rare in German today: apart from the oblique cases in the small declension class of weak masculine nouns (which is at least to some extent prone to loss²), the genitive is the only case that can be marked with a suffix on masculine and neuter nouns in the singular.³ Feminine nouns – the largest group of nouns in the German lexicon in terms of type frequency – do not exhibit a singular case marker at all. Table 1 gives an overview of the declension patterns of Contemporary German.⁴

Table 1. German singular paradigms (cf. Mugdan 1977 concerning the frequencies)

	Feminine	Masculine/Neuter	Masculine
		Strong declension	Weak declension
Nominative	<i>die Frau</i>	<i>der/das Mann/Schiff</i>	<i>der Matrose</i>
Genitive	<i>der Frau</i>	<i>des Mann-(e)s/Schiff-(e)s</i>	<i>des Matrose-n</i>
Dative	<i>der Frau</i>	<i>dem Mann/Schiff</i>	<i>dem Matrose-n</i>
Accusative	<i>die Frau</i>	<i>den/das Mann/Schiff</i>	<i>den Matrose-n</i>
	‘the women’	‘the man’/‘the ship’	‘the sailor’
Type frequency	53.7%	41.2%	3.7%

The radical syntagmatic loss of nominal inflectional markers can be easily recognized in Table 2, which contains the reconstructed Proto-Germanic paradigm of *wulfaz* ('wolf') and its German equivalent (cf. also Wurzel 1992).⁵

2. This declension class has lost (and still loses) members (cf. *d-es garte-n* > *d-es Garten-s*, 'the-GEN.SG garden-GEN.SG' and *d-es Gedanke-n* vs. *d-es Gedanken-s* 'the-GEN.SG thought-GEN.SG' in Contemporary German). However, some nouns (such as *Matrose* 'sailor') seem to retain this inflection pattern, which to a certain extent is even productive (cf. Köpcke 1995; Schäfer in press, and see also footnote 30).

3. Concerning plurals, the dative-*n* is the only case marker left. This is also an interesting topic in itself, but it will not be subject of this paper.

4. See Ackermann, this volume, for a discussion of the special case of the declension of personal names, which are not included in Table 1 and Table 2.

5. This development is linked to the emergence of articles, which to a large extent take over the expression of morphosyntactic information (cf. also Section 2).

Table 2. Case marking (singular): Proto-Germanic
(*a*-stem declension) vs. German (strong masculine declension)

	Proto-Germanic	German
Nominative	*wulf-az	Wolf
Genitive	*wulf-asa	Wolf-(e)s
Dative	*wulf-ai	Wolf
Accusative	*wulf-an	Wolf
Instrumental	*wulf-ō	

Against this backdrop, it seems to be predictable that the only case marker that is still present in singular paradigms apart from the quite rare *-(e)n*, the genitive-*(e)s*,⁶ should be prone to loss, too. Thus, many scholars such as Wurzel (1991) and Wiedenmann (2004) place the following synchronic variation in the morphological marking of genitive phrases in this context: one can often hear and read sentences with masculine and neuter nouns in a genitive phrase that do not contain an *-(e)s* ending (cf. (3)), although the genitive singular of strong masculine and neuter German nouns is typically marked by such an ending (cf. (4)). These sentences can be found in prestigious newspapers (cf. (5)), books (cf. (6)) and dictionaries (cf. (3)), even though some of them (depending on the noun) are considered to be against normative rules. Often, the genitive is used inconsistently within a single publication (cf. (3) and (4)). Since the genitive case is unambiguously and overtly marked through the article (e.g. *d-es*), the expression of morphosyntactic functions of the phrase as a whole is still ensured in these examples. It is only that the genitive is marked less saliently and less redundantly.

- (3) *Statt d-es Genitiv*
 instead.of the-GEN.SG genitive
 ‘instead of the genitive’ Wahrig (2009: 323): *Richtiges Deutsch leicht gemacht*
- (4) *Statt d-es Genitiv-s*
 instead.of the-GEN.SG genitive-GEN.SG
 ‘instead of the genitive’ Wahrig (2009: 321): *Richtiges Deutsch leicht gemacht*

6. The synchronic variation between *-s* (e.g. *d-es Vater-s* ‘the-GEN.SG father-GEN.SG’) and *-es* (e.g. *d-es Haus-es* ‘the-GEN.SG house-GEN.SG’) is mainly determined by phonological factors (cf. Szczepaniak 2010). In Section 3, the differences between *-s* and *-es* will be discussed in more detail.

- (5) *Mittel d-es Internet*⁷
 resources the-GEN.SG internet
 ‘resources of the internet’
- (6) *Gattung d-es Drama*⁸
 genre the-GEN.SG drama
 ‘genre of drama’

With regard to the explanation of the outlined phenomenon, there are essentially two possible approaches, which seem to be – at least to some extent – contradictory. On the one hand, -s omission is seen as part of the above-mentioned general tendency towards deflexion in the grammatical systems of Germanic languages in general and of German specifically. According to this view, every German noun will be affected by the loss of -s in genitive phrases, no matter what noun class the item at hand belongs to. Since the alleged general loss of genitive marking on nouns reduces redundancy in the grammatical system, this development is predicted by, among others, followers of ‘Naturalness Theory’, going back to Mayerthaler (1981), Wurzel (1984) and Dressler et al. (1987). The following quote by Wurzel (1991: 177–180) puts this view in a nutshell:⁹

Bei Licht besehen sind substantivische Flexionsformen mit Kasusmarkern am Wort nichts anderes als Relikte eines früheren Systems. [...] Es ist zu erwarten, daß künftig alle substantivischen Kasusflexive, darunter auch alle Genitivflexive, beseitigt werden [...]. Die Kasus werden dann allein durch Artikelflexion symbolisiert, vgl. **des Pfau*, **des Nachbar*, aber auch **des Hund*, **des Bär* usw.

‘Actually, nominal inflectional forms with case markers are nothing but remnants of an older system. [...] It is to be expected that all nominal case markers, among them all genitive suffixes, will be eliminated. Cases will then only be expressed through the inflection of the articles, cf. **des Pfau* (‘the-GEN.SG peacock’), **des*

7. <<http://www.zeit.de/kultur/2014-12/feminismus-internet-intellektuelle-essay>> (09 July 2015)

8. Lessing (1769: 28). *Hamburgische Dramaturgie*. The ways in which it is important to pay attention to the chronology of attestations will be discussed in Section 5. All historical examples in this paper are taken from the *Deutsches Textarchiv* and can be accessed via <deutsches-textarchiv.de>.

9. Of course not all scholars who subscribe to this view are followers of ‘Naturalness Theory’ and there are some important differences between the publications I class under this approach (cf., for example, Ágel’s (1996) remarks on mono-inflection). However, these publications share the basic assumption that genitive-s omission should be subsumed under the general tendency towards a reduction of case markers (cf. Ágel 1996: 30), which is the central point here.

Nachbar ('the-GEN.SG neighbour'), but also **des Hund* ('the-GEN.SG dog'), **des Bär* ('the-GEN.SG bear') and so forth.' (my translation, CZ)

On the other hand, it is claimed by some scholars that the observed variation in Contemporary German cannot be subsumed under the general tendency towards a reduction of case markers. Appel (1941), for example, assumes that only a well-delimited group of certain nouns (such as loanwords, abbreviations and proper names) is affected by *-s* omission and that *-s* omission will not spread to other noun classes:¹⁰

Indessen ein sehr wesentliches Ergebnis der Untersuchung [...] scheint mir zu sein, daß wir es nicht mit einem „Abfall“, „Wegfall“ der „s“-Endung im mechanischen Sinne zu tun haben, sondern mit sprachlichen Prägungen, die eben unter den gegebenen Bedingungen notwendig „s“-los geformt sind, die „s“-Losigkeit aber auch an diese Bedingungen gebunden bleibt. (Appel 1941: 55).

'A major result of my study seems to be that we are not dealing with a "drop" or "discontinuation" of the *-s* suffix in a mechanical sense, but with constructions that are under certain circumstances inevitably used without *-s*. Also in the future, *-s* omission will be bound to these circumstances.' (my translation, CZ)

Clearly, these views cannot simultaneously be adequate. The first aim of this paper is to evaluate both approaches and to deliver a conclusive explanation of *-s* omission in Contemporary German.¹¹ For this purpose, it is essential to fill an empirical gap. Therefore I will be concerned with synchronic data taken from the web corpus *DECOW2012* (cf. Section 2) and with diachronic data taken from the *Deutsches Textarchiv* (*DTA*, cf. Section 4). Both kinds of corpus data indicate that the second approach ("*-s* omission should not simply be subsumed under the general tendency towards deflection") should be taken seriously, although to date many scholars have preferred (explicitly or implicitly) the first approach ("occasions of genitive-*s* omission are harbingers of the imminent complete loss of nominal case markers in German"). In Section 3, I will also discuss psycholinguistic data which indicate that there is a functional motivation behind the tendency of certain nouns to be uninflected for case.

Explaining the variation in the marking of masculine and neuter nouns in German genitive phrases will not only shed light on the state of the inflectional

10. Note that the special status of the genitive marker *-(e)s* in German is also in accordance with general case marking preferences (cf. for example the Case Hierarchy in Primus 1987, 1993, 1999. Cf. also the remarks on nominal inflection in German in Fries 1997).

11. Of course, it is not my aim to predict future developments (although both quotes discussed include such predictions), but to explain and to classify the phenomenon. Therefore it is essential to examine which of the two approaches is appropriate with regard to the observations.

system as such, which is important for a typological profile of German, but will also examine a hitherto not very well-described factor called ‘morphological schema constancy’, which underlies much language change and synchronic variation (cf. Sections 3 and 4).

2. Which words are affected by -s omission in Contemporary German?

In this section, I will examine the extent to which it is justified to assume that the variation in genitive marking of masculine and neuter nouns is restricted to a well-delimited group of nouns in Contemporary German. The analysis is based on data taken from the web corpus *DECOW2012*, which is linguistically annotated and contains 9.1 billion tokens (cf. Schäfer & Bildhauer 2012). The corpus comprises a wide range of different text types and registers, including “quasi-spontaneous” speech (Schäfer & Bildhauer 2012: 492), taken for example from online forum discussions. In comparison with analyses based on corpora containing mainly newspaper articles this allows us to describe Contemporary German in a more comprehensive way. In particular, since I am also interested in constructions that go against normative rules it is reasonable to also take “quasi-spontaneous” speech into account.

In order to describe the variation and the affected groups of nouns, I took a randomized sample of 5000 genitive phrases, with weak nouns (i.e. those ending in *-(e)n*, e.g. *d-es Mensch-en* ‘the-GEN.SG human-GEN.SG’) excluded.¹² All phrases were annotated manually so that the influence of various grammatical characteristics on -s omission could be determined.

In this sample, 620 masculine or neuter nouns in genitive phrases do not contain the *-(e)s* suffix (cf. (7)), which amounts to 12.4% of the 5000 phrases considered (cf. Figure 1). Consequently, -s omission cannot be regarded as a marginal phenomenon in German.

- (7) *andere Versionen d-es* *Koran*¹³
 other versions the-GEN.SG Quran
 ‘other versions of the Quran’

Figure 2 illustrates that it is extraordinarily important to distinguish between different kinds of nouns. Peripheral nouns (i.e. nouns which differ from prototypical

12. The query had the following structure: determiner in genitive case (*des, eines, jenes, dieses, keines, meines, deines, seines, unseres, eures* or *ihres*) followed directly by a noun. Larger NPs (such as *d-es kleine-n Tisch-es* ‘the-GEN.SG small-GEN.SG table-GEN.SG’) were not included here, but in another sample (see below). The results were filtered manually in order to eliminate unusable phrases.

13. <<http://forum.ksta.de/archive/index.php/t-2389-p-6.html>>

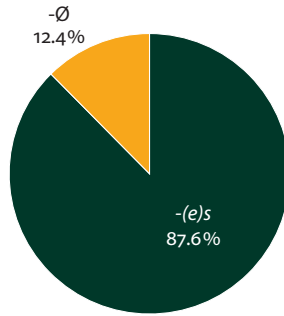


Figure 1. Proportion of -*s* omission in genitive phrases

members of this word class in certain respects) are much more prone to -*s* omission than central members of this word class (i.e. regular native appellatives, which are not abbreviations). While native appellatives are almost always used with the genitive suffix (1.2% -*s* omission, cf. (8)), loan words (15.0%, cf. (9)), proper names (60.7%, cf. (10)) and abbreviations¹⁴ (89.9%, cf. (11)) have a significantly higher proportion of genitive -*s* omission.¹⁵ With regard to abbreviations one could indeed claim that it is the suffix that is the exceptional case.

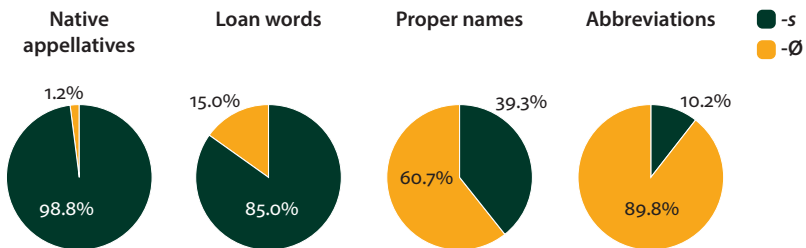


Figure 2. Proportion of -*s* omission for different kinds of nouns

14. Different kinds of abbreviations such as acronyms (e.g. *LKW* 'lorry') and clippings (e.g. *Prof* 'prof') are subsumed under the term *abbreviations*, here. For differences between these types, cf. Zimmer (in press).

15. Non-native proper names are classified as proper names and not as loan words. Furthermore, this overview is based on words which do not belong to two or three groups of peripheral nouns simultaneously (such as the word *DFB*, which stands for *Deutscher Fußball-Bund* 'German Football Association' and which is both a proper name and an abbreviation). The identification of proper names is based on the criteria summarized in Nübling, Fahlbusch & Heuser (2015: 16–61). Further types of peripheral nouns such as onomatopoeic words also seem to be prone to -*s* omission, but were not seen in the sample due to their low token frequency.

- (8) *in der Mitte d-es Tisch-es*¹⁶
 in the middle the-GEN.SG table-GEN.SG
 'in the middle of the table'
- (9) *in der Pyramide d-es Pharao*¹⁷
 in the pyramid the-GEN.SG pharaoh
 'in the pyramid of the pharaoh'
- (10) *Zukunft d-es Kosovo*¹⁸
 future the-GEN.SG Kosovo
 'future of Kosovo'
- (11) *der Fahrer ein-es Pkw*¹⁹
 the driver a-GEN.SG passenger.car
 'the driver of a passenger car'

Apart from the division into peripheral and central members of the nominal domain there are no major factors that determine the synchronic variation between *-(e)s* and \emptyset .²⁰ Many variables that have been suggested in the literature on *-s* omission (cf. by Appel 1941; Shapiro 1941; Leirbukt 1983; Rowley 1988; Wiedenmann 2004; and Scott 2014), show no significant effect, however. They include the grammatical function of the genitive in question (e.g. expression of possession vs. adpositional genitive), the involved determiner (e.g. definite article *des* vs. indefinite article *eines*), the syntactic context (e.g. additional genitives like in *wegen des Befehls des Generals* 'because of the general's order') and the number of words between determiner and noun.²¹ Furthermore, phonological factors (number of syllables, number of [s]/[z]-sounds, complexity of the final coda, properties of the vowel in the final syllable, existence/absence of *-s-* as linking element

16. <<http://www.saitenforum.de/board/archive/index.php/t-2840-p-2.html>>

17. <<http://www.golem.de/0511/41721.html>>

18. <<http://waltpolitik.powerbone.de/ichkeria/dpolitik.htm>>

19. <<http://www.polizeiupdate.de/index-2011-06-25.html>>

20. In a recent paper Bubenhofer, Hansen-Morath and Konopka (2014) try to model the variation of all possible genitive endings in German with decision trees and apply a machine learning approach. Even though their approach is applicable only to a limited extent to the examination of the variation between *-(e)s* and \emptyset (cf. Bubenhofer, Hansen-Morath & Konopka 2014: 414–415), their general findings are in line with this result (cf. Bubenhofer, Hansen-Morath & Konopka 2014: 417, Figure 4).

21. In order to determine whether the number of words between article and corresponding noun is relevant, another sample of 1000 phrases was taken. The sample consists of four groups (0, 1, 2 or at least 3 word(s) between article and corresponding noun) of 250 words, each.

in compounds) can be neglected.²² Only the final sound of the noun is relevant for the explanation of the phenomenon, as will be discussed in Section 3.²³

The fact that it is very important to distinguish between peripheral and central members of the nominal domain, with phonological factors more or less ignorable, can be illustrated by the comparison of the proper name *Spiegel* (a German news magazine, cf. (12)) and its homonym, the appellative *Spiegel* ('mirror', cf. (13)). Table 3 shows that these words differ considerably with regard to the omission of the genitive-*s* even though they are phonologically identical.²⁴

Table 3. -*s* omission in phrases with *Spiegel* (proper name) vs. *Spiegel* (appellative) in *DECOW2012-00*

	-Ø - <i>s</i>	proportion of -Ø
<i>Spiegel</i> (proper name)	373 208	64.2%
<i>Spiegel</i> (appellative)	13 710	1.8%

- (12) *in der letzten Ausgabe d-es Spiegel*²⁵
 in the most.recent issue the-GEN.SG Spiegel
 'in the most recent issue of the Spiegel'

- (13) *Die Anbringung ein-es Spiegel-s im Bad*²⁶
 The hanging.up a-GEN.SG mirror-GEN.SG in_the bathroom
 'the hanging up of a mirror in the bathroom'

Furthermore, nouns in genitive phrases without internal determiner usually contain a genitive-*s* (cf. (14)). In a sample of 1000 determinerless genitive

22. Merely with regard to differences between certain peripheral nouns, such as toponyms (e.g. *Mississippi* vs. *Niger*), these factors have an influence on the propensity of -Ø (cf. Zimmer, in press).

23. See Zimmer (in press) for a large-scale study on factors that determine the synchronic variation based on speaker judgements and data taken from *DECOW2012*, including a detailed statistical analysis (e.g. logistic regressions). The few additional factors that somewhat influence the synchronic variation (e.g. appositions and token frequency) are discussed there, too.

24. The question of whether *Spiegel* is a proper name or an appellative was determined on the basis of the context in each case. Only unambiguous sentences were included.

25. <<http://forum.isuv.de/archive/46936/thread.html>>

26. <<http://www.frag-einen-anwalt.de/Schadenersatz-wg-Bohrloechern---f28660.html>>

phrases²⁷ only seven instances remain uninflected for case (cf. (15)).²⁸ Thus, *-s* can be omitted if there is a corresponding determiner because genitive marking is redundant in such cases; otherwise the nominal inflection marker is needed.

- (14) *Ziel menschlich-en Handeln-s*²⁹
aim human-GEN.SG action-GEN.SG
'aim of human action'

- (15) *Schutz menschlich-en Leben*³⁰
protection human-GEN.SG life
'protection of human life'

3. Why are only peripheral nouns affected by *-s* omission?

In Section 2, I showed that *-s* omission in Contemporary German affects only a well-delimited group of nouns, namely peripheral members of this word class, such as abbreviations, proper names and loan words. Furthermore, it was revealed that those words are only prone to *-s* omission if the phrase in question contains a determiner.

These observations can be explained by the competition of two motivations, which are weighted differently depending on the particular noun. On the one hand, there is syntactic agreement, which implies overt expression of syntactic functions on at least two words, leading to a salient manifestation of grammatical properties.

27. The structure of the query was as follows: a noun followed by at least one adjective ending in *-n* and another noun. The query included only the following nouns, which typically occur in such constructions: *Qualität, Konsum, Genuss, Verschwendung, Verbrauch, Zustand, Phase, Verkauf, Bedeutung, Quelle, Verwendung, Zentrum, Bereich, Bereiche, Existenz, Vernichtung, Schutz, Gebrauch, Form, Formen, Entwicklung, Entstehung, Mann or Frau* (as head noun of the phrase) or *Wasser, Saft, Bier, Glück, Gold, Mehl, Urlaub, Stoff, Wein, Sterben, Frieden, Alter, Geist, Leben, Schlaf, FCKW, PVC, Verstand, Marketing, Internet, Eigentum, Handeln, Denken, Verhalten, Wissen, Unterricht, Lernen, Engagement, Zusammenleben, Bewusstsein, Glaube, Reichtum, Material* or *Wachstum* (as head of the attribute). (Pseudo-)partitive constructions were not included since the absence of *-(e)s* in such constructions is not quite comparable to *-s* omission in phrases with a noun and corresponding determiner (cf. Zimmer 2015).

28. It seems to be possible to classify those very rare occasional instances of *-s* omission in phrases without a determiner as typing errors, in particular since they were taken from a corpus containing texts that were not proofread.

29. <<http://hebel.frblog.de/munte-bisky-geisler-whats-left/>>

30. <<http://www.cineclub.de/filmarchiv/2004/i-robot.html>>

On the other hand, a factor called ‘morphological schema constancy’ plays an important role. This term refers to the maintenance of word form stability through the avoidance of inflectional elements that strongly affect the shape of a word,³¹ or the complete avoidance of inflectional elements (cf. Ackermann & Zimmer 2017). It is functional to preserve the word forms of special nouns in order to facilitate their recognition, which is more difficult than the recognition of more prototypical nouns, anyway.

The following characteristics of peripheral nouns hinder their (quick) recognition: Loan words and abbreviations are usually unfamiliar, especially when they have been created or borrowed recently (cf. Wegener 2002). Some of them are not part of first language acquisition and do not belong to the basic vocabulary of a language.

Proper names can also be unfamiliar and they differ in their semiotic properties from appellatives (for details cf. Ackermann, this volume). In addition, loan words, abbreviations and proper names differ phonologically and graphematically from prototypical nouns (which are overall structured similarly);³² this fact complicates the detection of boundaries between stems and inflectional affixes (cf. Nübling 2005; Ronneberger-Sibold 2007; and Wegener 2010). For these reasons, language producers tend to avoid modifications of certain nouns, although the requirements of agreement would lead to overt case marking.³³

On the impact on the shape of the word, there are important differences between the four possible realisations of strong masculine and neuter nouns in genitive phrases.³⁴ First, avoiding inflectional suffixes completely is obviously the most radical means of preserving the shape of a word. Second, in written language the use of an apostrophe facilitates the recognition of the boundary between stem and affix and hence the recognition of the whole word. This possibility is strongly rejected by prescriptive grammarians. Perhaps that is why nowadays the

31. E.g. Umlaut and other apophonic changes, which lead to stem allomorphy (e.g. *die General-s* vs. *die Generäl-e* ‘generals’, cf. Wegener (2004) and Ackermann & Zimmer (2017).

32. German nouns are usually monosyllabic, or trochaic with [ə] or [ɐ] in the second syllable.

33. The degree of possible modifications is determined by the relevance of a category (cf. Dammel & Gillmann 2014). Number is usually marked overtly, even on peripheral nouns (although abbreviations remain sometimes uninflected for number: *die LKW* ‘lorries’), while case is unmarked overtly more often (cf. Zimmer, in press).

34. Two very rare markings are not considered here: the overlong *-(e)ns* (e.g. *d-es Herz-ens*, ‘the-GEN.SG heart-GEN.SG’) and the apostrophe *-’* which does not correspond to an overt phonological representation (e.g. *d-es Rhythmus-’*, ‘the-GEN.SG rhythm-GEN.SG’).

apostrophe is used quite rarely if the noun is preceded by an article and thus -Ø is possible (cf. Section 2 and Zimmer, in press, for more details). However, in texts written before 1900 the apostrophe can be found quite frequently (cf. Section 5).³⁵ The use of apostrophes in genitive phrases can be considered as a compromise between the two competing motivations – morphological schema constancy (word recognition is facilitated) and the expression of syntactic agreement (an agreeing suffix is realised). While -’s and -s differ only graphematically, there is a strong phonological difference between -’s and -s on the one hand and -es on the other hand. The latter morpheme always creates an additional syllable. Thus, the impact of this inflectional marker on the shape of a noun is much stronger than that of other variants.

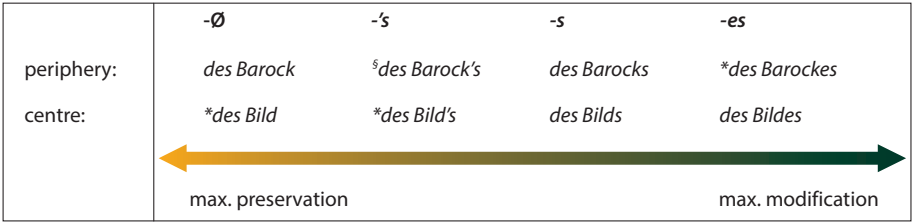


Figure 3. The influence of inflectional markers (genitive singular) on the shape of a noun

The four possibilities are distributed in accordance with the need of word form preservation, which results from the properties mentioned above (cf. Figure 3). Prototypical nouns do not need to be preserved from inflection and thus always take -s or -es. In contrast, abbreviations, proper names and loan words are harder to recognize and therefore often remain uninflected for case. They also occur(red) with -’s, though such examples are criticized by prescriptivists³⁶ and can also take -s. These words do not take -es, however, which would affect the shape of a word most strongly, unless they approximate(d) the centre of the nominal domain. The harder it is to recognize a word, the stronger the tendency towards word form preservation and -s omission (cf. also Section 5).

35. If a noun (for example a personal name) is not preceded by an article (and the apostrophe is therefore the only way to preserve the shape of the noun to at least some degree) apostrophes are still used frequently, e.g. *Konnopke’s Imbiß* ‘Konnopke’s Takeaway’. For a detailed discussion of the functions of apostrophes in German cf. Nübling (2014).

36. This is expressed by the notation with [§] in the example in Figure 3.

Even if a non-prototypical noun ends in [s] it normally does not take *-es*, but remains uninflected for case. This is (also according to normative rules) the preferred possibility for most of those words. In contrast, [s] as the final sound of a prototypical noun does not enhance the probability of *-s* omission (cf. Table 4).³⁷

Table 4. Impact of final [s] on *-s* omission

	Final sound = [s]		Final sound ≠ [s]		p-value
	-Ø vs. <i>-es</i>	Proportion of -Ø	-Ø vs. <i>-es</i>	Proportion of -Ø	
Prototypical nouns	4 270	1.5%	34 2904	1.2%	> 0.05
Peripheral nouns	137 38	78.3%	444 1169	27.5% ³¹	< 0.001***

Stress is another important factor here: trochaic loan words are much more affected by *-s* omission than iambic loan words (cf. Duden-Grammar 2009: 196). However, stress is not at all relevant for prototypical nouns. Native trochaic nouns ending in [s] do not remain uninflected for case (e.g. **d-es Ausweis*, ‘the-GEN.SG identity card’).

All these observations underline the assertion that both motivations involved are weighted differently depending on the nature of the noun in question.³⁹ Essentially, syntactic agreement is more important than morphological schema constancy in German since prototypical nouns always take *-(e)s* while peripheral nouns do not always remain uninflected for case. However, if it is important to

37. The p-values in the right column are the results of χ^2 -tests concerning the proportion of *-s* omission (nouns with final [s] vs. nouns without final [s]). For the last row the effect size $\varphi = 0.3220$.

38. The proportion of -Ø is comparatively low here because the majority of the 444 words are loan words, which exhibit a weaker tendency towards *-s* omission than abbreviations and proper names, as will be explained in Section 5.

39. Apart from the two motivations which influence the variation of strong masculine and neuter nouns in genitive phrases, there is another important tendency relevant here. If nouns exhibit a certain combination of phonological, semantic and lexical properties (e.g. accent on the final syllable, at least two syllables, [+ human] and masculine grammatical gender), they tend to belong to the weak declension class (cf. Table 1, Köpcke 1995 and Schäfer in press). This tendency is quite strong and since it also applies to loan words (proper names and abbreviations are not affected), it overrides morphological schema constancy in certain cases: If such a word does not have a final [ə], *-en* is attached to the stem (which affects the shape of the word rather strongly) to mark all oblique cases in the singular – even if the noun in question is a loan word (e.g. *d-es Journalist-en* ‘the-GEN.SG journalist-GEN.SG’). Here, morphology interacts with other domains (mainly phonology).

facilitate word recognition because a particular noun impedes recognition, \emptyset is a possibility and syntactic agreement does not need to be realized in these cases.

In the following section, I will show that effects of the facilitation of word recognition of peripheral nouns can be proven by psycholinguistic data.

4. The impact of -s on the recognition of peripheral nouns

In order to verify the hypothesis that -s omission facilitates the recognition of peripheral nouns we conducted a psycholinguistic experiment (cf. Ackermann & Zimmer 2017). 54 native speakers of German participated in a self-paced reading study. They were asked to read sentences that were segmented into several parts. These segments had to be read one after another: initially, each sentence was completely replaced with dashes. By pressing a button the first segment was made to appear; pressing the button again caused the next element to appear and so on (cf. (16) and (17)).⁴⁰ We used a “moving window” so that previous segments were hidden again. This method enabled us to measure the time the participants needed to read each segment.

(16) ##### des Pharaos #####.

(17) Die Touristen | besuchen | den Tempel | des Pharaos | und bestaunen |
das imposante Gebäude.

‘The tourists visit the temple of the pharaoh and gaze at the impressive building.’

The test items contained peripheral nouns in genitive phrases in two variants: one variant with -s and one without -s. The reading times of both variants were compared in order to examine the impact of the inflectional marker on the word recognition of the tested peripheral nouns. Each participant read only one variant per lexeme to avoid priming effects: reading a peripheral noun for the second time within a few minutes accelerates the processing of this word.

Moreover, since limited acceptability of grammatical structures has a strong effect on reading times, it was important to only include lexemes that can be used either with or without genitive suffix. The two variants for each lexeme should not differ from each other in terms of their acceptability.⁴¹ To ensure this, we checked

40. The boundaries of the segments are indicated by the vertical bars (|) in (17).

41. This is also the reason why we could not include prototypical German nouns in genitive phrases without -(e)s. If the recognition of these words had not been accelerated by -s omission, it would not have been possible to decide whether this was due to the lack of acceptability or due to the fact that word form preservation was not necessary here. Furthermore, those conspicuously unacceptable phrases would have drawn attention to the absence/presence of -s in genitive phrases.

both variants in *DECOW2012* and conducted an acceptability judgement task with 48 native speakers of German.⁴² The participants were asked to rate sentences on a scale from 1 (very uncommon) to 5 (very common). The results are summarized in Table 5.

Table 5. Acceptability and frequency of the included word forms

Nouns	DECOW		Acceptability judgements		
	n	proportion of -Ø	-s	-Ø	p ³⁶
<i>April</i>	575	54.3%	4.06	3.18	> 0.05
<i>Bafög</i> ³⁷	1781	77.4%	4.24	4.06	> 0.05
<i>Barock</i> ('baroque')	6384	80.6%	4.35	4.24	> 0.05
<i>Himalaya/Himalaja</i> ³⁸	3193	76.9%	4.35	4.53	> 0.05
<i>Internet</i> ³⁹	81895	32.2%	4.44	3.06	< 0.001***
<i>iPhone</i>	12314	53.2%	4.76	4.0	> 0.05
<i>Iran</i>	7503	70.0%	4.13	4.69	> 0.05
<i>Jupiter</i>	1866	63.9%	4.25	3.69	> 0.05
<i>LKW</i> ('lorry')	2487	71.0%	4.44	3.50	> 0.05
<i>Orinoko/Orinoco</i> ⁴⁰	294	87.4%	4.53	4.71	> 0.05
<i>PC</i>	12308	42.0%	4.41	3.23	> 0.05
<i>Pharao</i> ('pharaoh')	5129	56.6%	4.29	4.35	> 0.05
<i>Ramadan</i>	1761	71.4%	3.94	4.29	> 0.05
<i>Tango</i>	1567	50.8%	4.29	3.88	> 0.05
<i>Tiber</i>	413	51.1%	4.19	4.19	> 0.05

42. We applied a within-subject design. Needless to say, the participants of the acceptability judgment test were other persons than those who participated in the self-paced reading experiment.

43. The p-values are the results of Wilcoxon-tests (cf. Bortz & Schuster 2010: 133).

44. [a type of financial aid for students]; abbreviation of *Bundesausbildungsförderungsgesetz*

45. The query included both orthographic versions. The more frequent one (<Himalaya>) was part of the acceptability judgement task.

46. It was possible to include *Internet* in spite of the difference between the two variants because -Ø was rated as worse. Since less acceptable items decelerate language processing it is impossible that this difference would have led -Ø to have advantages in terms of the speed of word recognition (see below). *Internet* is the only included lexeme with two unequally rated variants. For a detailed explanation cf. Ackermann & Zimmer (2017).

47. The query included both orthographic versions. The more frequent one (<Orinoko>) was part of the acceptability judgement task.

The comparison of the times the participants needed to read the inflected vs. the uninflected version confirms that *-s* has a significant influence on the speed of word recognition of the peripheral nouns involved ($p = 0.010^*$, generalized linear mixed regression). The mean difference between both variants amounts to 42.92 ms (cf. Figure 4), which cannot simply be explained by the presence of one more letter. The number of letters also has a significant influence on reading times ($p = 0.036^*$), but the impact of $+/-$ one letter is weaker than that of *-s* vs. $-\emptyset$. This is shown by a comparison of two versions of the regression model: $AIC = 5,868.393$ if *-s* vs. $-\emptyset$ is excluded, $AIC = 5,864.947$ if the number of letters is excluded (the lower the AIC, the better the fit of the model). Hence, the data substantiate that word form preservation indeed facilitates word recognition of peripheral nouns.⁴⁸

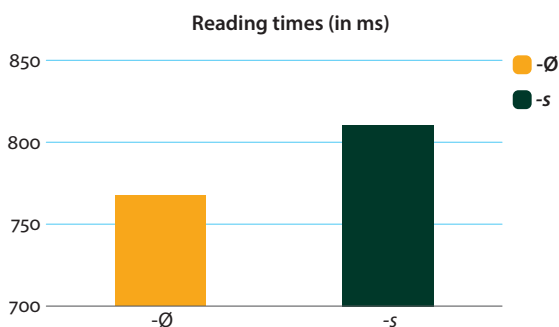


Figure 4. Mean reading times of $-\emptyset$ vs. *-s*

5. Morphological integration of loanwords

From the point of view of the language users, word form stability is particularly important for recently borrowed loan words because of their initial unfamiliarity with these words. Inflection complicates the already difficult recognition of words. Thus, it is reasonable to spare these words from inflection. But in the course of time, morphological schema constancy will become less important if a noun becomes established and more common (cf. Wegener 2004: 106). Therefore, the decrease of *-s* omission in loan words is particularly useful to demonstrate the importance of morphological schema constancy.

48. For a more detailed description of the statistical analysis and all confounding factors cf. Ackermann & Zimmer (2017).

In the following section, I will discuss diachronic data taken from the *Deutsches Textarchiv*, which currently contains about 100 million tokens in 1300 texts. The corpus comprises scientific texts (45.0%), literary texts (36.7%) and other text types (18.3%) from 1600 to 1900 (cf. <www.deutschestextarchiv.de>).

In order to examine the diachronic development of the inflection of loan words I derived a sample containing all the genitive phrases with loan words that share the following characteristics:⁴⁹

1. Both variants (-*s* and -Ø) are fairly frequent (at least 10% of the overall number of attestations and at least 20 tokens each).
2. The lemma appears in at least two different centuries.
3. The total number of tokens per lemma was produced by at least 15 different authors.

The following nouns were included in the query: *Drama* ('drama'), *Embryo* ('embryo'), *Interesse/Interesse* ('interest'), *Klima/Clima* ('climate') and *Universum* ('universe'). According to Pfeifer (1993) all of them were borrowed between the 15th and the 18th century. Figure 5 summarizes the development of all five lemmas. Note also the examples in (18)–(20).⁵⁰

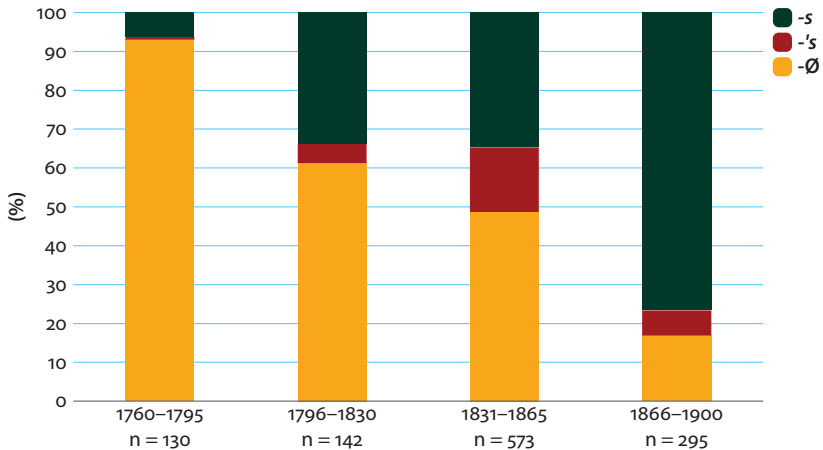


Figure 5. Diachronic development of all five nouns

49. To avoid confounding factors, examples with foreign suffixes (e.g. Latin: *d-es Ordinari-i* 'the-GEN.SG ordinary-GEN.SG', i.e. 'university chair holder'), appositions (*d-es General Rapp* 'the-GEN.SG general Rapp [proper name]'), nouns ending in [s] (*d-es Globus* 'the-GEN.SG globe') and names of months (*d-es Oktober* 'the-GEN.SG October') were not included.

50. For details concerning the quoted attestations cf. <deutschestextarchiv.de>.

- (18) *die Beschaffenheit d-es Klima*
 the nature the-GEN.SG climate
 'the nature of the climate'

Hirschfeld (1782: 35): *Theorie der Gartenkunst*

- (19) *d-em Einfluss-e [...] d-es Clima-'s*
 the-DAT.SG influence-DAT.SG [...] the-GEN.SG climate-GEN.SG
 'the influence of [...] the climate'

Baumstark (1835: 63): *Kameralistische Encyclopädie*

- (20) *eine Einwirkung d-es Klima-s*
 a impact the-GEN.SG climate-GEN.SG
 'an impact of the climate'

Schmoller (1900: 160): *Grundriß der Allgemeinen Volkswirtschaftslehre*

It is obvious that there is a strong decrease in the propensity for -s omission, which goes along with the gradual integration of these loan words into German. All five words are inflected very frequently in the latest period, while they tended to remain uninflected in the first period. This indicates that as these words become more and more established, morphological schema constancy becomes gradually less important.

Interestingly, in the third time period the use of apostrophes increases significantly. This period is characterized by considerable variation: the proportion of -s vs. -Ø is almost 50:50, which reflects uncertainty in language users on the inflection of the particular nouns. In this context, the use of the apostrophe can be seen as a compromise between the two competing motivations: morphological schema constancy on the one hand and syntactic agreement on the other hand (cf. also Section 3). From a diachronic point of view, the increased use of morphographic apostrophes characterizes an intermediate state in the transition from -Ø to -s.

These observations hold true both for all five nouns as a whole and for the nouns looked at individually – cf. for example Figure 6, which summarizes the development of *Klima/Clima*.

Klima/Clima is particularly informative because one can see that the morphological integration of this loan word goes hand in hand with its graphematic integration. Figure 7 illustrates the minor, but significant difference between the original spelling with <c> (according to the Latin *clima*) and -Ø on the one hand and the spelling with <k>, the only possibility in Contemporary German, and -s on the other hand (χ^2 -test: $p = 0.023^*$; $\phi = 0.1658$).

The morphological integration of the five nouns continues after the year 1900 with the effect that all of these words are almost always inflected for genitive case in Contemporary German.⁵¹ Thus, with regard to -s omission, these words, which

51. Proportions of -Ø in DECOW2012-00: *Drama* (4.7%, $n = 684$), *Embryo* (6.1%, $n = 425$), *Interesse* (1.1%, $n = 1537$), *Klima* (1.4%, $n = 795$) and *Universum* (2.0%, $n = 4505$).

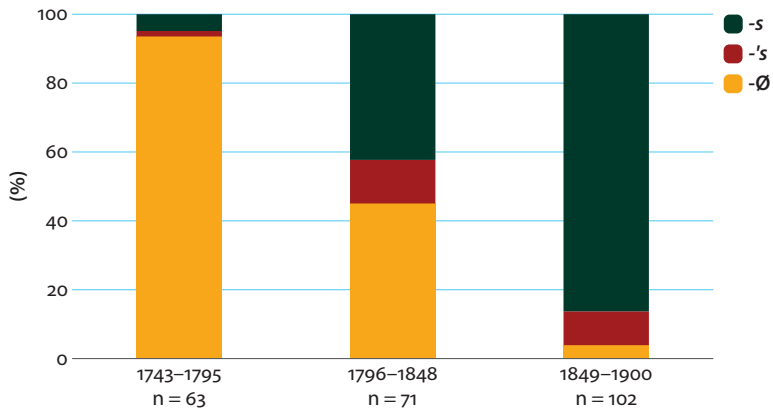


Figure 6. Diachronic development of *Klima/Clima*

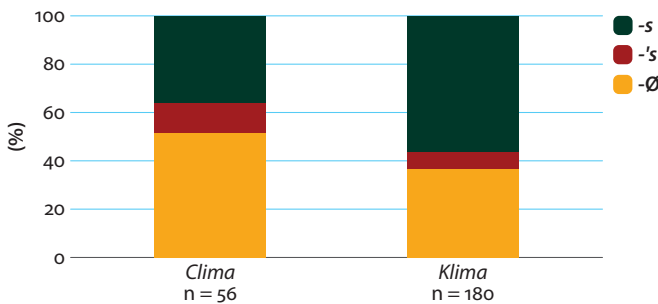


Figure 7. Correlation of graphematic and morphological integration of *Clima/Klima*

over time have been integrated to some extent, do not differ strongly from native nouns. This explains why loan words exhibit the lowest proportion of -*s* omission compared with proper names and abbreviations (cf. Figure 2 above): in contrast to members of the latter groups, loan words gradually approximate the centre of the nominal domain, are thus treated more and more like “normal nouns” and hence are usually inflected for genitive case.⁵² The group of loan words in the sample of 5000 genitives mentioned above comprises fairly new and poorly integrated loan words (e.g. *Ayurveda* ‘Ayurveda’: 99.0% -*s* omission, *n* = 204 in *DECOW2012–00*)

52. The integration of loan words does not necessarily include an assimilation of all (non-native) properties. There is for example a well-established inflection type for loan words in German, characterised – in accordance with the need for word form preservation – by non-syllabic -*s* in genitive singular and all cases in plural (e.g. *Job-s* (‘jobs’/‘job-GEN.SG’) or *Schal-s* (‘scarfs’/‘scarf-GEN.SG’)). Some loan words seem to retain this pattern and do not further approximate the centre of the nominal domain in this respect (cf. Eisenberg 2011: 226–233).

and well established loan words (e.g. *Thema* ‘theme’: 0.9% -s omission, $n = 5332$ in *DECOW2012–00*), which explains the relatively low average of 15.0% for -s omission in loan words. Even loan words ending in [s] can take a suffix (-es) if they become established very well, cf. for example *d-es Index* > *d-es Indexes* (‘the-GEN.SG index-GEN.SG’, cf. Duden-Grammar 2009: 196).

The diachronic data confirm that morphological schema constancy is an important factor that determines both diachronic and synchronic variation: if it is important to preserve the shape of a word (e.g. because of the unfamiliarity of a loan word due to the recency of its borrowing) the noun in question tends to remain uninflected for genitive case. When the reason for word form stability being particularly relevant disappears (e.g. because a word becomes gradually established), the motivation of syntactic agreement is weighted higher than morphological schema constancy and thus the noun in question tends to be inflected. Furthermore, the diachronic development of the five words studied here substantiates that the second motivation involved, syntactic agreement, is still important and productive. If the complete loss of case markers in German were imminent, nouns that were almost never inflected for case in the 18th century would not be regularly inflected at present.

One might guess that this can be explained by the (normative) influence of grammarians. Szczepaniak (2014), for example, claims that the diachronic and synchronic variation concerning short and long German genitive endings (e.g. *d-es Flug-s* vs. *d-es Flug-es* ‘the-GEN.SG flight-GEN.SG’) is strongly influenced by the higher prestige of the latter variant. However, as I will show in the following, the development of loan words concerning -s omission can only be explained by the language-internal factors mentioned above.

Adelung (1806: 146), who was a very influential grammarian, described the ways of inflecting loan words in German as follows:

1. „bloß durch den Deutschen Artikel“, z.B. „*des Adverbium*“
 2. „auf Lateinische Art“, z.B. „*des Adverbii*“ („nur im Nothfalle“)
 3. „auf Deutsche Art“, z.B. „*des Charakters*“ („dafür müssen sie geschickt seyn, Deutsche Declinations-Zeichen anzunehmen“)
-
1. ‘only through the German article’, e.g. ‘the-GEN.SG adverb’
 2. ‘in the Latin style’, e.g. ‘the-GEN.SG adverb-GEN.SG’ (‘only if everything else fails’)
 3. ‘in the German style’, e.g. ‘the-GEN.SG character-GEN.SG’ (‘words have to be suitable for accepting German suffixes’; my translations, CZ)

This illustrates that the rules of grammarians in the time period considered are not the reason for the decrease of -s omission in the five exemplarily examined loan words. On the contrary: Adelung to some extent recommends -s omission with

regard to loan words, while stating that the other procedures cannot be used without restriction. He even labels some word forms with *-s*, such as “*des Adverbiums*” (‘the-GEN.SG adverb-GEN.SG’) that are very common in Contemporary German as “*barbarisch*” (‘barbaric’; Adelung 1806: 156). Similarly, neither Schottel (1663), Bödiker ([1746]1977), Gottsched (1748) nor Grimm (1822) (i.e. further grammarians) stigmatises *-s* omission. But nonetheless, *-s* omission decreases.

6. Conclusion

In the previous sections, it was shown that there is important evidence for Appel’s (1941) analysis of *-s* omission in New High German. Synchronic data indicate that this phenomenon is limited to peripheral nouns; indeed morphological integration leads to a decline of *-s* omission for loan words. This suggests that the system of nominal inflection in German is more stable than some scholars such as Wiedenmann (2004: 349) claim. *-s* omission occurs not because inflectional markers are ‘nothing but remnants of a former system’ (cf. Wurzel 1991: 177), but because it is functional to preserve certain words from inflection in order to facilitate linguistic processing. If the need for word form preservation for a particular noun ceases because the noun becomes established, the noun is then usually marked with *-s* (or even *-es*), like all other central members of the nominal domain. Thus, the two motivations, ‘morphological schema constancy’ and ‘syntactic agreement’, are both relevant in Contemporary German with regard to the marking of genitive phrases.⁵³

Of course, it is not impossible that all nominal case markers in German might be abolished in the future. In principle, it is imaginable that prototypical German nouns will eventually be unmarked for genitive case by analogy with peripheral nouns. However, no signs of such a development can currently be detected. It is important to note that the complete loss of case markers in German is not imminent and – crucially – the observed instances of *-s* omission should not simply be subsumed under the general tendency towards deflection in German and many other Germanic languages. As an explanation of *-s* omission in Contemporary German, involving the benefits concerning word recognition of peripheral nouns seems to be much more appropriate than the alleged elimination of superfluous remnants of former periods. Thus, *-s* omission is closely related to

53. However, while it was shown that schema constancy facilitates the recognition of peripheral nouns, the alleged benefit of syntactic agreement was not examined here (cf. for example Ronneberger-Sibold 2010 who assumes that agreement markers in German facilitate syntactic parsing). Therefore it would be interesting to assess the (psycholinguistic) benefit of syntactic agreement concerning the marking of genitives in more detail.

other phenomena that induce synchronic and diachronic variation in the nominal inflection of German, such as the -s plural of peripheral nouns (cf. Wegener 2004), the inflection of personal names (cf. Ackermann, this volume) and the use of apostrophes (cf. Nübling 2014).

One important difference between the variation in genitive marking and examples of complete syntagmatic loss of case markers in German and its precursors seems to be that there is no phonological change promoting the loss of -(e)s (in contrast to the loss of the dative-e for example, cf. Wegera & Waldenberger 2012: 147–148). Interestingly, as a result of phonological change there has been a very small (in terms of the token frequency rather considerable, though) declension class of masculine nouns which did not take a genitive-suffix in Old High German and Middle High German (cf. Kern & Zutt 1977: 89 and Ahlsson 1965: 14–15), including *vater* ('father') and *bruoder* ('brother'). These prototypical German nouns were integrated into the regular strong declension of masculine nouns, which could be another (minor) hint that the genitive-(e)s is comparatively stable. The genitive singular seems to be a special case, which (at least for now) has resisted the general tendencies in German.

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Corpora

DECOW2012 <<http://corporafromtheweb.org/>>

DTA <<http://deustextarchiv.de/>>

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From genitive suffix to linking element

A corpus study on the genesis and productivity of a new compounding pattern in (Early) New High German

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Present-day German uses two formally different patterns of compounding in N + N compounds. The first combines bare stems (e.g. *Tisch + decke* 'tablecloth') while the second contains an intervening linking element (LE) as in *Geburt-s-ort* 'birth-LE-place'. The linked compounding type developed in Early New High German (1350–1650) from phrasal constructions by reanalyzing genitive attributes as first constituents of compounds. The present paper uses corpus data to explore three key stages in this development: In the initial stage, it shows how prenominal non-specific genitive constructions lent themselves to reanalysis due to their functional overlap and formal similarity. Additionally, compounds seem to have replaced not only prenominal genitives, but also structurally different postnominal genitives. In the second stage, the new compounding pattern increases in productivity between 1500 and 1710, especially compared to the older pattern without linking elements. The last stage pertains to changes in spelling practice. It shows that linked compounds were written separately in the beginning. Their gradual graphematic integration into directly connected words was reversed by a century of hyphenation (1650–1750). This is strikingly different from present-day spelling practice and shows that the linked pattern was still perceived as marked.

1. Introduction

Nominal compounds in German come in one of two forms: In the first one, similar to English, the two nouns are simply combined (*Tisch + decke* 'tablecloth'). The second makes use of intervening linking elements (LE) (*Geburt-s-ort* 'birth-LE-place', *Akte-n-ordner* 'file-LE-folder'), a phenomenon that can also be observed in several other Germanic languages (e.g. Dutch, Danish, Luxemburgish, c.f. Fuhrhop & Kürschner 2015: 574–578). About 39–42% of nominal compounds

in present-day German make use of linking elements (Kürschner 2003: 105; Kopf 2017), at least two of these linking elements can be traced back to genitive morphemes (cf. Pavlov 1983; Nitta 1987; Demske 2001; Nübling & Szczepaniak 2013). Due to the frequent preposing of genitive attributes in Early New High German (1350–1650, short: ENHG), reanalysis of a genitive attribute and its head lead to a new, compound-like structure. By analogy, these former genitive suffixes spread to new formations as well as existing compounds in both of which a former inflectional origin is no longer indicated due to specific morphological or semantic properties (*Infektionszeit* ‘infection-LE-time’, *bauersmann* ‘farmer-LE-man’). This results in a new pattern of compounding.

This process has been frequently described; however, there is still much to be learned about the constructions involved and the chronology of changes in syntax and morphology. Existing corpus studies are few and usually confined to smaller aspects or shorter time frames. The studies presented in this paper draw from several corpora and consider a wide range of phenomena to gain a fuller picture. They look at three stages in the development from 1500 to 1900, going from syntax to word formation: The first study focuses on the early stages of the reanalysis process by scrutinizing suitable genitive constructions and their relation to compounds. The data suggests a process of substitution in form. The second study applies measures of morphological productivity to compounds with and without linking elements to show when we can assume a new pattern and not simply isolated cases of reanalysis. The third study uses spelling to infer the status that the new compounds hold in relation to the established pattern. This reveals large differences and an extended period of integration into word formation morphology.

2. Phenomenon and corpora

Whereas genitive attributes in present-day German generally follow the head noun,¹ their position in ENHG was variable (Carr 1933; Ebert 1988; Demske 2001). Prenominal attributes could be reanalyzed as first constituents of compounds. While overtly marked genitives gave rise to linking elements, as in (1), reanalysis of not overtly marked genitives (i.e. feminine nouns belonging

1. Personal names and personal name-like nouns (mostly kinship terms, e.g. *Omas Haus* ‘granny’s house’) still form an exception (cf. Nübling, Fahlbusch & Heuser 2012: 84–85), this applies to some other proper name classes as well.

to the former *i-* or *ō-*declension classes, as in (2a) resulted in structures identical to those of a pre-existing compounding type which made use of bare stems, as in (2b).^{2,3,4}

- (1) a. *wegen* [*d-es* *Leib-s*] *Erbe-n*
 because the-GEN.SG body.M-GEN.SG heir.M-GEN.SG
 >
wegen *d-es* *Leib-s-erbe-n*
 because the-GEN.SG body-LE-heir.M-GEN.SG
 ‘because of the heir of the body’
- b. [*d-er* *Sonne-n*] *Schein*
 the-GEN.SG sun.F-GEN.SG shine.M.NOM.SG
 ‘the shine of the sun’
 >
d-er *Sonne-n-schein*
 the-NOM.SG sun-LE-shine.M.NOM.SG
 ‘the sunshine’
- (2) a. *wegen* [*ein-er* *Stadt-Ø*] *Mauer*
 because a-GEN.SG town.F-GEN.SG wall.F.GEN.SG
 ‘because of the/a wall of a town’
 >
wegen *ein-er* *Stadt-Ø-mauer*
 because a-GEN.SG town- Ø-wall.F.GEN.SG
 ‘because of a town wall’

2. Older stem-forming elements also lead to linking elements in compounds, e.g. OHG *tag-a-lon* ‘day-wage’, but they play a very marginal role in today’s system. (For two different views of their importance in the genesis of some linking elements, see Wegener 2008 and Nübling & Szczepaniak 2013: 69–72.) They might, however, have helped the new linking elements along as speakers were used to the existence of additional phonological material in compounds.

3. Abbreviations used in the glosses: case: NOM – nominative, GEN – genitive, DAT – dative; number: SG – singular, PL – plural; gender: F – feminine, M – masculine, N – neuter; LE – linking element. In case of syncretism, only the relevant case or number is marked. Gender is marked on the noun only, although expressed through agreement on the articles.

4. The examples used show the presumed reanalysis while maintaining the same structure. Proof for reanalysis can then be found when the compounds are used in new contexts, e.g. *mit dem Leibserben* ‘with the heir of the body’, where *dem* ‘the.DAT.SG’ can refer to *Erben* ‘heir.DAT.SG’ only.

- b. *burg + bann*
 castle.F jurisdiction.M.NOM.SG
 >
d-er Burg-Ø-bann
 the-NOM.SG castle-Ø-jurisdiction.M.NOM.SG
 ‘the jurisdiction of a castle, castle-ward’

In this paper, I will call the compounds in (1) “linked compounds” and those in (2) “unlinked compounds”.

All compounds analyzed here are defined by grammatical properties: A modifier or determiner clearly refers to the second nominal element but not to the first.

- (3) genitive construction:
in [ein-es König-s] Schloss
 in [a-GEN.SG king.M-GEN.SG] castle.N.NOM.SG
 ‘in a king’s castle’
- (4) bridging construction:
 a. *in König-s Schloss*
 in king.M-GEN.SG/LE castle.N.DAT.SG
 ‘in castle of the king / in the royal castle’
 b. *ein-es König-s Schloss-es gewahr werden*
 a-GEN.SG king.M-GEN.SG/LE castle.N-GEN.SG aware become
 ‘become aware of the castle of a king / of a royal castle’
- (5) compound:
d-as [König-s Schloss]⁵
 the-NOM.SG [king-LE castle.N.NOM.SG]
 ‘the royal castle’

In (5) the determiner *das* (N.NOM/ACC.SG) agrees with *Schloss* (N.NOM/ACC.SG) but not with *Königs* (M; if analyzed as case marker, -s had to be GEN.SG). I consider such cases to be compounds. In (3) the determiners *eines/des* (M/N.GEN.SG) clearly agree with the genitive attribute *Königs*, making these cases genitive constructions. In (4) there is either no determiner or the determiner could refer to both nouns, e.g. because the verb *gewahr werden* ‘become aware of’ governs the genitive case. I found that such a threefold distinction works best with a quantitative, usage-based approach. There are, however, researchers who employ more fine-grained, scalar-like systems (Pavlov 1983; Nitta 1987); in any case, all approaches struggle with problems (cf. Ebert 1988: 35).

My study is based on data from three corpora of ENHG and New High German (NHG, since 1650). The Mainz Corpus of (Early) New High German consists of

5. As in English, separate spelling was possible in ENHG compounds.

texts from 1500 to 1710. It is a strongly modified version of the Bergmann & Nerius (1996) corpus. The corpus is divided into 8 periods, of which 4 are examined here (160,000 tokens). The second corpus used is part of GerManC (Durrell, Ensslin & Bennett 2007), limited to the subcorpora NEWS, SCIE and SERM in three periods spanning the years 1650 to 1800 (270,000 tokens). For ease of comparison, these periods are marked at 1670, 1720 and 1770 in the graphs. The third corpus comprises newspaper texts from 1843 and 1905 taken from the Mannheim Corpus of Historical Newspapers and Magazines, and matches the GerManC's NEWS sub-corpus in size (60,000 tokens).⁶

3. Study 1: Nominal constructions in Early New High German – from genitive attribute to compound

The diachronic relation between genitive constructions and compounds during and after the genesis of linked compounds has never been investigated quantitatively. Pavlov (1983) restricts himself to compounds and bridging constructions around 1500 and 1700. As he collected only types, not tokens for the second period, and as he matched them in number to the types from the first period, his data doesn't allow conclusions pertaining to usage frequency and productivity. Demske (2001), on the other hand, considers corpus data for genitive constructions (in newspapers from 1609 and 1667) but only looks at compounds in a qualitative analysis.

The present study analyzes the interdependence of both types of nominal constructions. As it covers a long time period and considers tokens, it is able to shed light on changes in usage frequency of compounds and seeks to answer the question why they have gained so much in relation to genitive constructions. The frequency of N+N compounds increases drastically in the ENHG and NHG period, from 6.2 instances per 1,000 words in 1500 to 34.1 in 1900 (Figure 1). This holds true for unlinked compounds (from 4.5 instances per 1,000 words to 18.2) as well as for compounds with linking elements *-s-* and *-(e)n-* (from 1.8 to 15.9). Other linking elements play a marginal role and were therefore excluded.

6. To ensure comparability with the Mainz Corpus, which consists of scientific and religious texts in equal shares, SCIE (scientific texts) and SERM (sermons) were chosen from GerManC. The newspaper texts from GerManC (NEWS) and the Mannheim Corpus allow comparison as well. In three graphs (Figure 1, Figure 4 and Figure 8), I combine all data. To justify this, separate analyses for the two groups were carried out first; both showed the same tendencies, the difference in genre did not lead to a difference in the use of compounds, linked compounds or hyphens.

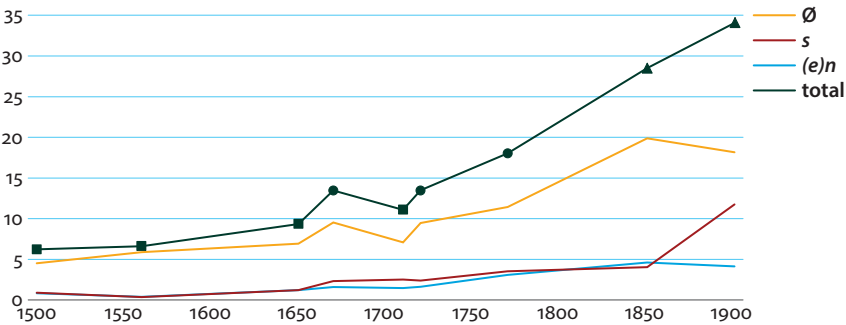


Figure 1. Number of compounds per 1,000 words ($n = 7,259$). (Data combined from Mainz Corpus ■, GerManC ● and Mannheim Newspapers ▲.)⁷

This change can be partly described as a shift in form: Nouns that were formerly modified by prenominal genitives and maybe, to a lesser degree, by selected adjectives or prepositional phrases (cf. Table 1), are now modified by an additional morphological constituent.⁸

Table 1. Constructions possibly involved in functional shifts in (E)NHG

a. compound	<i>d-ie</i> the-NOM.SG	<i>kind-s-geburt</i> child-LE-birth			
b. genitive construction	<i>d-es</i> the-GEN.SG	<i>kind-s</i> child-GEN.SG	<i>geburt</i> birth		
	<i>d-ie</i> the-NOM.SG	<i>geburt</i> birth	<i>d-es</i> the-GEN.SG	<i>kind-s</i> child-GEN.SG	
c. adjective + noun	<i>d-ie</i> the-NOM.SG	<i>kindliche</i> infantile	<i>geburt</i> birth		
d. noun + prepositional phrase	<i>d-ie</i> the-NOM.SG	<i>geburt</i> birth	<i>von</i> of	<i>d-em</i> the-DAT.SG	<i>kind-e</i> child-DAT.SG

7. The noticeable stagnation of unlinked compounds in 1900 seems to be counteracted by a strong increase of compounds with linking *-s-*. This could be due to increasing morphological complexity of the input: Compounds whose first constituent ends in a certain suffix (see below) always use linking *-s-* in present-day German, and prefixed compounds have a strong tendency towards linking *-s-* (cf. Kopf 2017). Such first constituents make up only 14% of *s*-linked compounds in 1650–1700 (GerManC NEWS), but 53% in 1900. At the same time, morphologically complex first constituents are consistently rare in unlinked or *(e)n*-linked compounds (on average 3% and 1%, respectively). For an evaluation of theories on potential functions of linking *-s-* in complex compounds see Kopf (2017).

8. There might be other factors at play as well, e.g. replacement of simplex nouns by compounds. The increasing “nominal style” may also be of relevance here; further investigation is needed.

Although there are OHG (Old High German, 500–1050) and MHG (Middle High German, 1050–1350) examples, reanalysis of genitive constructions truly gained ground in ENHG (Demske 2001: 305). It has been frequently remarked (e.g. Pavlov 1983: 47–48; Demske 2001: 315–316) that not all ENHG genitive constructions lent themselves to such a reanalysis. Apart from the syntactic condition (prenominal genitive attribute), a semantic condition had to be met: Only genitive attributes with non-specific reference can be considered as possible sources, i.e. they are “grammatical synonyms” of compounds (Pavlov 1983: 48, see also 54, 72–78), e.g. *der barfußßer regel* (genitive), *die barfußßerregel* (compound) ‘the Rule of the Discalced’. This is due to the fact that the first element of a compound does not refer to a specific person, thing or instance (see also Schlücker, this volume): While the child in *des kinds geburt* can be a certain child – in my corpus mostly Jesus – the identity of the child in *Kindsgeburt* is (even if known) of no relevance and the child cannot be described more closely. If we tried this, the adjective would almost always refer to the morphological head, e.g. *die schwere Kindsgeburt* is a difficult (*schwer*) childbirth, not the birth of a heavy (*schwer*) child.⁹

Demske (2001: 315–316) argues similarly that the prenominal position develops a restriction on possessive prenominal genitive attributes while genitives with non-specific semantics either change their position to postnominal (*eines Kindes Geburt* ‘a child’s birth’ > *Geburt eines Kindes* ‘birth of a child’) or are reinterpreted as first constituent of a compound (*Kindsgeburt* ‘childbirth’). However, the restriction on non-specific genitive attributes is less absolute than usually thought: Inherently specific elements like proper names were and still are possible first parts of compounds (*die Marien=Kirche* ‘St. Mary’s Church’, *das schöne Davids Sprüchlein* ‘the beautiful saying of David’, see also Schlücker, this volume). The same holds for name-like common nouns like *Gott* ‘God’, one of the earliest cases of reanalysis (e.g. OHG *gotes hūs* ‘church (God’s house)’), and unique nouns like *Sonne* ‘sun’. Only if these nouns are characterized further, they become unsuitable candidates for compounding: It is very unlikely that *des strafenden Gottes Wort* ‘the word of the punitive God’ should be replaced by a compound *Gotteswort* ‘God’s word’, because *strafenden* ‘punitive’ could no longer be read as referring to *Gott*.

9. There are some exceptions in present-day German, e.g. *verregnete Feriengefahr* ‘danger of rainy holidays’ instead of ‘rainy [danger of holidays]’ as suggested by the structure (c.f. Bergmann 1980); these are cases that can be resolved pragmatically. (English, by contrast, employs this pattern of adjectival modification quite frequently, such as in *used car dealer*, in which the adjective modifies the modifier rather than the head of the compound (cf., e.g., Berg 2011), this is facilitated by its lack of inflectional morphology.)

If only the non-specific or inherently specific constructions can be reanalyzed, only they should change over time. To test this, all genitive constructions and compounds were manually extracted from four time periods of the Mainz Corpus and annotated for both position (post/pre) and specificity:

1. Non-specific: modifying element is unspecified or is inherently specific without further characterization (name-like nouns, unique nouns), e.g. *einer Frauen Haus* ‘house of a woman’, *die Strafe Gottes* ‘God’s punishment’
2. Specific: modifying element is specified by context, e.g. by an adjective, a demonstrative, possessive or interrogative determiner, a prepositional attribute, a numeral, a relative clause or other sentences, e.g. *dieses Mannes Besitz* ‘this man’s possessions’, *Dort leben drei Schwestern. Das Haus der Schwestern* ... ‘Three sisters are living there. The sisters’ house ...’

The bridging constructions mentioned in (4) above are of special interest because they do not allow a clear distinction in grammatical structure. Pavlov (1983: 73) considers this as “allgemeine Unreife der Opposition von Wortgruppe und Zusammensetzung” (‘general immaturity in the opposition of phrase and compound’) typical for ENHG. It is, however, not guaranteed that such an ambiguity was indeed present: Written language does not allow us to discern potentially different stress patterns such as can be found today in *(des) Vátters Brúder*, a genitive construction in which both nouns bear main stress vs. *(der) Vátters-brúder* ‘father’s brother’, a compound with secondary stress on the head noun (cf. Demske 2001: 303).

In light of this, my main hypothesis predicts in particular: 1) The percentage of bridging constructions should be high in the beginning, as they are ideal cases for reanalysis, 2) the percentage of non-specific genitive attributes should go down while the percentage of compounds is going up, as the former are replaced – either directly or indirectly – by the latter, and 3) the specific constructions should remain stable because they cannot be substituted by a compound.¹⁰

10. Other target domains of the vanishing non-specific genitive attributes were considered, but could not be checked. Following the same logic as in Table 1, non-specific genitives might also be substituted by adjectives (*Gottes Wort* vs. *göttliches Wort*) or prepositional phrases. The latter mostly seems to happen when place names are involved and therefore poses no real problem for our data. Only a small number of genitive attributes are semantically suited to a replacement by adjectives, mostly derivatives like *königlich* ‘royal’, *fürstlich* ‘princely’, *göttlich* ‘divine’, *gnädig* ‘merciful’. A small amount of texts from 1500 and 1710 was checked for such adjectives and no increase could be discerned.

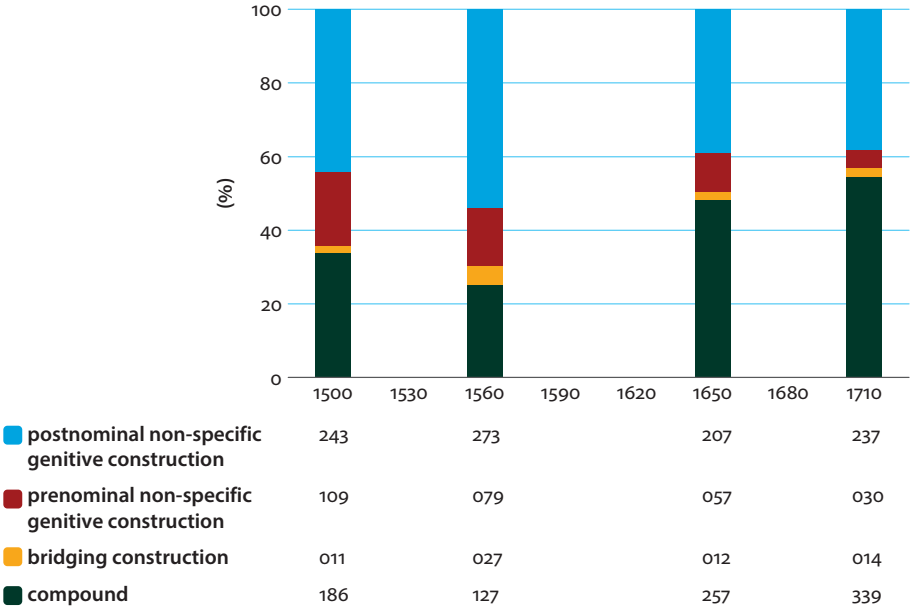


Figure 2. Development of constructions with functional overlap (*n* = 2,208), Mainz Corpus^{11,12}

My analysis yields the following results (cf. Figure 2): As expected, the proportion of prenominal non-specific genitive attributes declines while the proportion of compounds increases. To test that the declining proportion of the prenominal cases is not due to the positional shift of genitive attributes, the postnominal non-specific cases were checked as well. As they are declining, too, it is highly implausible that the vanishing non-specific prenominal constructions are simply postposed – postnominal non-specific genitives might even be exchanged for compounds as well as the pattern becomes more widespread. A χ^2 test shows that the differences reported in Figure 2 are highly significant ($p < .001$) albeit with a relatively small effect size (Cramer’s *V*: .157). Table 2 reports Pearson residuals, measuring how strongly the observed value of a cell differs from its expected value.¹³ Overall the residuals confirm what can be seen in Figure 2: Compounds

11. Compounds without linking elements were excluded if their first constituent showed an overt genitive suffix when used independently (e.g. *Abend-essen*, but *des Abends*). Of course, sometimes genitives were not overtly marked on the attribute, therefore some unlinked compounds might still be the results of reanalysis. My data suggests, however, that these cases are marginal.

12. $\chi^2 = 164.08$, $df = 9$, $p < .001$, Cramer’s *V*: .157

13. Pearson residuals are unsquared χ^2 components. Values exceeding 2 show that the observed value is higher than expected at a statistically significant level, values below –2 show, that the observed value is lower than expected.

are lower in the 16th century than in the 17th while the reverse is the case for genitives, especially when prenominal. The somewhat larger differences in 1560 remain to be explained, but are not due to a single text. Bridging constructions remain rare throughout. Their number may be irrelevant for reanalysis, they might not have been truly ambiguous (due to stress patterns), or the written corpora are a poor reflection of ENHG as such.

Table 2. Pearson residuals for constructions with functional overlap ($n = 2,208$), Mainz Corpus

	compound	bridging construction	non-specific genitive construction	
			prenominal	postnominal
1500	−2.66	−1.23	4.91	0.28
1560	−5.63	3.22	2.01	3.57
1650	2.54	−0.88	−1.15	−1.63
1710	5.24	−0.94	−5.37	−1.98

There is little change in the (low) number of prenominal specific genitives and erratic fluctuation in the postnominal cases,¹⁴ hence it doesn't seem to be the case that noun phrases involving genitive attributes are becoming more specific.

Linear regressions for time and construction type show that compounds are not increasing at the same rate as genitives are decreasing, cf. Figure 3. This

14. These cases are not included in the graph because it shows the relation between the candidates for reanalysis or functional substitution only. As percentages are used, the addition of unrelated material would blur the picture. The numbers are as follows (percentages given in relation to all constructions in the corpus):

	postnominal specific	prenominal specific
1500	262 (30%)	71 (8%)
1560	159 (23%)	40 (6%)
1650	148 (20%)	45 (6%)
1710	291 (31%)	38 (4%)

The “disappearing” non-specific genitives should lead to an increase of specific genitives, if it was the case that non-specific genitive phrases became altogether more specific instead of being partly replaced by compounds, or to a decrease if there was an overarching development towards less specificity. (Both scenarios also seem somewhat implausible, as specific and non-specific use are governed by the fact that speakers sometimes want to talk about something in general and at other times about a certain person, thing or instance – the two are not generally interchangeable for the purpose of communication.)

suggests that additional factors are at play, furthering the use of compounds in written ENHG, cf. fn. 8.

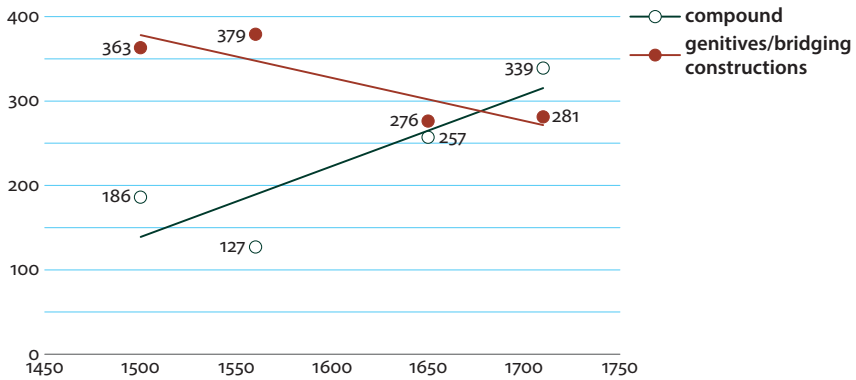


Figure 3. Linear regressions on data from Figure 2 (Compounds: $y = 0.8397x - 1120.4$, $R^2 = .73$; all other constructions: $y = -0.5075x + 1139.2$, $R^2 = .77$)

In conclusion, I tentatively assume a shift in expression for nominal elements with non-specific semantics that modify a second noun: In 1500 most of these cases are expressed with genitive constructions, by 1710 compounds make up the majority.

4. Study 2: Measuring productivity of compounding patterns

The productivity of compounding in present-day German is often casually subsumed under discussions of derivational morphology, cf. “all the discussion here should equally apply to compounds” (Bauer 2005: 316). It is a highly productive word formation process with very few restrictions. In OHG, compounds of more than two nouns existed but were more uncommon than today and often contained a strongly lexicalized compound (e.g. *buochstap* in *buoch-stap-zīla* ‘book stick row (= row of letters)’). Derived constituents were unusual, especially if the word formation suffix was still productive (cf. Henzen ²1957: 47–48). In present-day German, such input restrictions are almost nonexistent (cf. Wurzel 1996: 504). This might explain why productivity in German compounding receives so little attention from researchers. However, if we add linking elements to the mix, productivity becomes a very useful concept: The new compounding type from former genitive constructions must of course have developed and expanded in productivity, so that a comparison with the unlinked pattern will be instructive.

Most research on linking elements calls the linking elements themselves “productive” and “unproductive” (Fuhrhop 1998: 194–196; Kürschner 2003: 45;

Nübling & Szczepaniak 2008). I avoid this abbreviated way of speaking because it complicates the comparison with unlinked compounds: As these make no use of linking elements, their productivity could only be measured for the whole compounding pattern. Thus productivity will be investigated for linked compounds (N+LE+N) and unlinked compounds (N+N).¹⁵

To determine productivity of linked compounds in the early stages, two approaches were chosen in the present study: 1.) The first focuses on restrictions on first constituents, 2.) the second calculates *P*, productivity in the narrow sense according to Baayen (1992).

1. The pattern of linked compounds had to lose restrictions established by the linking elements themselves, imposed by the former inflectional class: In the beginning, they occurred only where they were “paradigmatic”, i.e. where a genitive form identical to the first constituent existed – this is a natural consequence of their genesis in univerbation. Later on, the pattern using *-s*- accepted other nouns as well: Cases like *Arbeit-s-haus* ‘work house’ cannot be a direct product of reanalysis from a former genitive as *-s* never occurs as genitive marker for feminine nouns (with the exception of proper names). I therefore extracted all compounds with linking *-s*- from the corpora and divided them into a paradigmatic and an unparadigmatic group. Figure 4 shows the relation between the two. A clear trend can be discerned: While the corpus showed no unparadigmatic cases in 1500 and 1560,¹⁶ they rise to 26% in 1650 and reach 43% by 1900. At the end of my time span, they strongly adhere to nouns derived by a select number of suffixes (*-ung*, *-ion*, *-schaft*, *-heit/keit*, *-tum*, *-ität*, *-ling*, *-sal*, cf. Aronoff & Fuhrhop 2002: 61; Nübling & Szczepaniak 2008: 20). This is not the case in earlier stages, where much variation is exhibited, e.g. *Appellation-rat* but *Konfession-s-übung*.¹⁷

15. Schlücker (2012: 6) considers the two types (N+N and N+LE+N) in present-day German as formal variation of a uniform word formation pattern, because the linking elements add no semantic value to the word formation product. However, she assumes that this once was the case, before unparadigmatic use developed, because the (former) genitive case could still be interpreted as such. For the scope of this paper, it isn’t relevant whether I speak of formal variants or different compounding types, for the sake of terminological simplicity I will stick with the latter.

16. Earlier cases exist, but were so few that none of them are attested in my corpus.

17. Unparadigmatic cases in linked compounds using *-(e)n-* are much rarer. They are mostly relicts of old inflectional suffixes (Demske 1999: 159; Nübling & Szczepaniak 2008: 5): *Hahn-enkamm* ‘cockscorn’ is based on the earlier genitive *Hahnen*, today’s genitive is *Hahns*. An analysis of such cases would only determine the point in time when the noun changed its

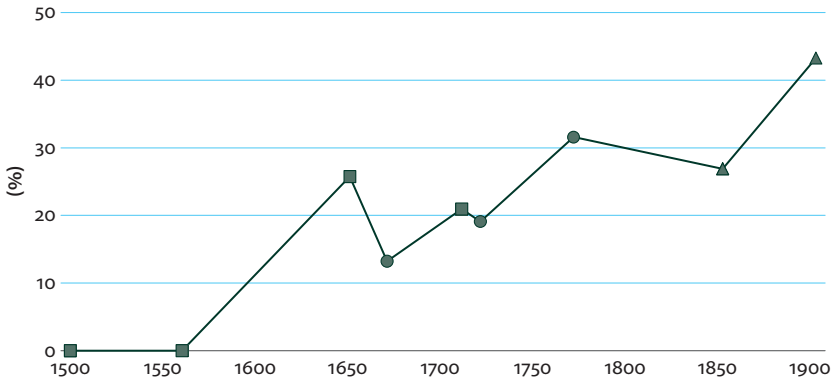


Figure 4. Percentage of unparadigmatic linking *-s-* in relation to all compounds with linking *-s-* ($n = 1,659$)^{18,19}

I consider these numbers conclusively evidencing a new, productive compounding pattern from 1650 at the latest, but due to the relatively small corpus, the growth is much more interesting than the precise onset date.

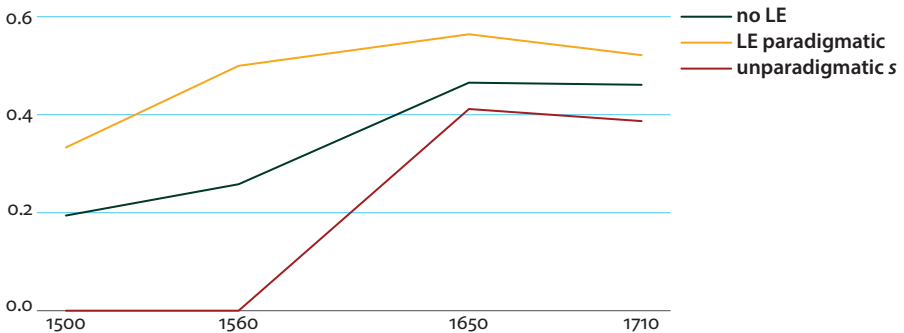


Figure 5. Productivity in the narrow sense (tokens = 1,534; hapax legomena: 592), Mainz Corpus

inflectional class and therefore be useless for measuring productivity in compounding. There are, however, some exceptions for compounds with *-en-*: It is used unparadigmatically in Latinate loans like *Instrument-en-klang* 'sound of (an) instrument(s)', *Medikament-en-packung* 'medicine box' and exerts complex restrictions on the first constituent (cf. Klein 2015).

18. Due to different corpus sizes, productivity in the narrow sense could not be employed in this case.

19. Data combined from Mainz Corpus ■, GerManC ● and Mannheim Newspapers ▲.

2. Productivity in the narrow sense, also termed potential productivity (Baayen 2009), was measured according to Baayen (1992: 115–119) by calculating all tokens and hapax legomena following a certain compounding pattern. The values for unparadigmatic *-s-* for example are the quotients of all hapax legomena containing unparadigmatic linking *-s-* found in the period analyzed divided by all compound tokens containing unparadigmatic linking *-s-* in the same period (Figure 5). The resulting value *P* “express[es] the statistical readiness with which new formations are encountered” (Baayen 1992: 115). As the number of text words must be equal in all periods compared, only the Mainz Corpus was used.

If the linked pattern makes use of paradigmatic elements, the numbers start off at a relatively high level (0.33) – as is to be expected, because all cases of reanalysis are contained in this group. The linked compounds using unparadigmatic *-s-* were calculated separately: As can be seen, they appeared later and their productivity rose from zero to 0.41 in 1650. This should, however, be taken with a grain of salt as the total numbers are very small (48 tokens, 19 hapaxes for 1650–1710). Compounds without linking elements, while remaining below the linked compounds, become more productive as well. This might reflect the loss of input restrictions. In the second half of the time period investigated, the differences between the three types are much smaller. All numbers must be interpreted very carefully, as the corpus is relatively small. This yields many hapaxes that are not truly new, but were simply not previously attested by chance (cf. Baayen 2009: 905). If combined with other data, e.g. the reduced restrictions on compounding, the growing percentage of unparadigmatically linked compounds and the situation in present-day German (see below), it is still instructive.

The available data for NHG unfortunately doesn't lend itself to quantitative productivity measures at all, therefore direct comparison with the corpus data presented here is impossible: The studies are synchronic in nature and comprise only types (Kürschner 2003) or even only types that were first attested at the time of compilation (own study, see below). Nübling and Sczcepaniak (2011) make use of doubtful cases like *Seminar-arbeit/Seminar-s-arbeit* ‘term paper’, they only show diachronic variation in the 20th century (using the DWDS main corpus) in a very small number of cases. It remains to be determined how meaningful these are. While both *-s-* and *-(e)n-* are found in about 39% of compound types in newspapers (Kürschner 2003: 105 and own data), most of them combine almost exclusively with first elements that established linking elements centuries ago, e.g. *Arbeits-* (DTA, 1631) (on similar aspects see Fuhrhop 1998: 195), and especially with the aforementioned derivatives ending in *-ung*, *-ion* etc. As the latter are morphological heads that almost exclusively link with *-s-*, they should not be

considered evidence of productivity. If we discount these formations and consider only recent loans as first constituents, linked compounds are reduced to 5% (1% *s*, 4% *(e)n*) (own analysis of data from Wortwarte 2009/2010, *n* = 292). This is even true for new loans that are identical in phonological structure (stress pattern, number of syllables, final consonant) to older first constituents: *Design(-philosophie)* ‘design philosophy’ – *Verein(-s-philosophie)* ‘club philosophy’, *Entertainment(-erwartung)* ‘expectation of entertainment’ – *Kultiviertheit(-s-erwartung)* ‘expectation of sophistication’. On this basis, I tentatively conclude that the prevalence of linking elements in present-day German is high but the productivity of the pattern is rather low.

5. Study 3: Persisting syntactic properties

As mentioned earlier, for the scope of this paper compounds are defined by grammatical properties only. I excluded spelling practice (i.e. spaces, hyphenation) as criterion, unlike Pavlov (1983: 19–20), who considers it additional evidence. My data shows that compound writing was not established in late ENHG (1500–1650) and early NHG (1650–1800);²⁰ Even compounds that are attested in the OHG or MHG period without linking elements are sometimes written separately, e.g. <nott sachen> ‘urgent affair(s)’, <hochzeit tag> ‘holiday, wedding day’ (see Figure 6).²¹ Although the writing of compounds should not make them compounds as such, a graphematical analysis can inform our understanding of how the new compound type fits into the grammatical system.

As Figure 6 shows, unlinked compounds do make use of separate writing, but only rarely (13% at the most), while linked compounds are written separately in 78% of all cases at the beginning of the time frame investigated. This percentage strongly declines over the course of the next 200 years; in 1710 only 7% are remaining. Writing practice for these new compounds lags behind their grammatical integration, it reflects their syntactic origins. As they leave the latter increasingly behind, e.g. by transferring the linking element *-s-* to feminine nouns, linked compounds adopt the established compound spelling.

20. For the purpose of this paper, only the second half of the ENHG period is considered in the corpus data (“late ENHG”). The term “early NHG” refers roughly to the years 1650–1800, the beginning of the New High German period.

21. Spelling practice is especially problematic if the nouns are written separately. If they are written as one word, there are much fewer cases that can be shown to be genitive constructions, see also Nitta (1987: 406).

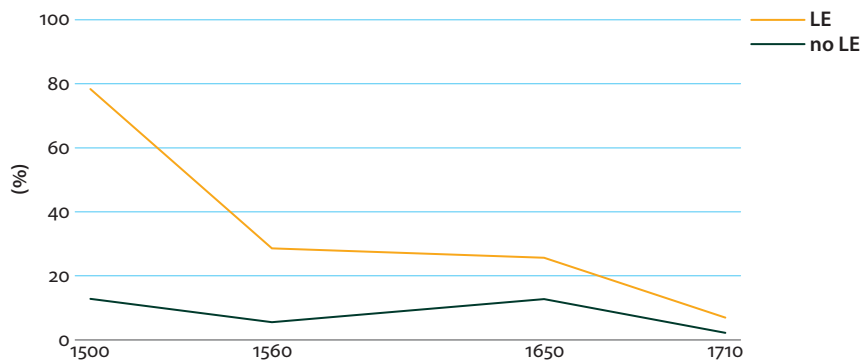


Figure 6. Percentage of compounds that are written with a space ($n = 1,402$), Mainz Corpus

This is, however, not the whole story: At the beginning of the 17th century, a new spelling strategy – hyphenation – developed. Its relation with separate writing is peculiar: While separate forms are found with almost the same percentage as 90 years before, hyphenated spellings undo the graphematical integration process – they marginalize directly connected spelling (i.e. spelling without any intervening non-letters at the inner boundary) in linked compounds (Figure 7).

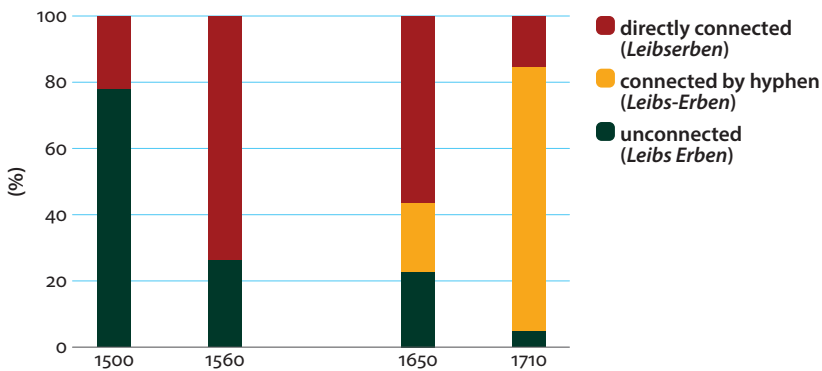


Figure 7. Spelling of compounds with linking elements ($n = 431$), Mainz Corpus

Hyphenation in early NHG was restricted almost exclusively to N+N compounds. At the point of its maximal diffusion, in the first half of the 18th century, up to 72% of all nominal compounds were separated by hyphens; other parts of speech show hyphenation at a maximum of 0.5%. The phenomenon was, however, short-lived: In the second half of the 18th century it was down to 8% and at the beginning of the 20th century only 1% of all N+N compounds were hyphenated (see Figure 8) (cf. Kopf 2017).

A separate analysis of linked and unlinked compounds shows an interesting distribution: In present-day German, hyphenation (which is rare anyways) is usually suppressed when a linking element occurs (cf. data from Grube 1976; Borgwaldt 2013; Kopf 2017). The opposite is the case for 17th century German. Solling (2012: 125–151) analyzed sermons from 1550 to 1710 and found striking differences between the two types of compounds. Unlinked compounds made consistently rare use of separate spelling. Meanwhile, linked compounds show diachronic change: Separate spelling steadily declines. Hyphenation first occurs in 1600 and 1620 in two single instances; it is noticeable from 1660 and increases in 1710 for all compounds. Those with linking elements, however, show a much higher hyphenation rate.

My data paints a similar picture for a much larger time frame (Figure 8). Hyphenation reaches about 90% for linked compounds with no difference between linking elements while it remains at max. 64% for unlinked compounds. This establishes a clear preference for hyphenation in linked compounds from around 1650 to 1750.

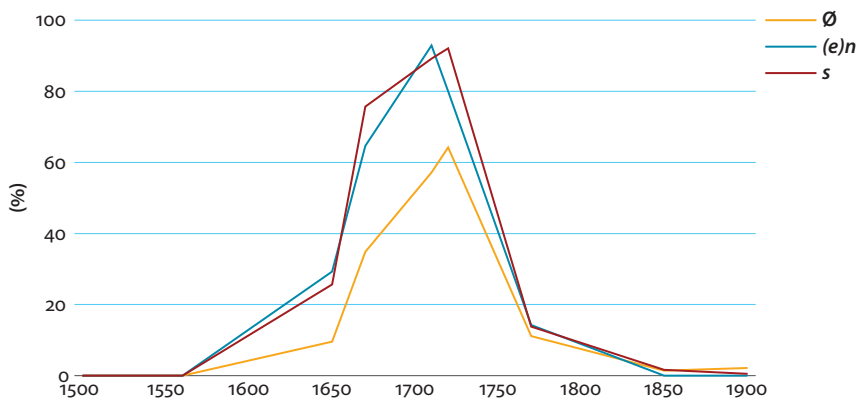


Figure 8. Hyphenation rate in N+N compounds depending on linking elements ($n = 7,435$) (Data combined from Mainz Corpus, GerManC and Mannheim Newspapers)

This is confirmed by contemporary grammarian Bödiker (1701: 36):

Ob man die *Composita substantiva* auch in der Mitte so zeichnen soll? Es scheint wol fast ohne Noht; Jst auch wegen der unsäglichen Menge solcher Compositorum unmöglich. Doch aber in Wörtern/ die etwas dunkel und schwer zusammen gesetzt/ oder wo das erste *Nomen im Genitivo* stehet/ oder da sonst fremde mercksame Wort zusammen kommen/ ist es fast nöhtig. (original emphasis)

‘Should we mark compound nouns like this in the middle? It seems almost unnecessary and it is impossible due to the sheer number of compounds. But it is almost necessary in words that are combined in an intransparent way, or where the first noun has genitive form or if otherwise unusual words are combined.’ (my translation, KK)

In present-day German, hyphenation plays a marginal role at best. I calculated a hyphenation rate of only 7% in compounds from 1966–1973 from Grube’s (1976) corpus data (which is made up of newspapers, magazines, scientific literature and fictional prose). Hyphenation is restricted to word formation products with at least one marked constituent (e.g. loan words, abbreviations, quotes, proper names or words containing unusual characters such as numbers), to cases in which the beginning of the second element cannot be easily discerned due to an initial vowel grapheme (e.g. <Druck-Erzeugnis> ‘print product’ vs. <Drucker-Zeugnis> ‘printer’s certificate’)²² or to compounds containing three or more nouns (cf. Bredel 2008; Buchmann 2015; Kopf 2017; Schlücker, this volume). In all these cases it serves as a segmentation aid, as can also be seen from the official spelling rules (DR 2011: 45):

Der Bindestrich bietet dem Schreibenden die Möglichkeit, [...] die einzelnen Bestandteile als solche zu kennzeichnen, sie gegeneinander abzusetzen und sie dadurch für den Lesenden hervorzuheben.

‘The hyphen allows the writer [...] to mark the single components as such, to define them from one another and by doing so to emphasize them for the reader.’
(my translation, KK)

Non-standard spelling makes use of hyphenation also by breaking up smaller morphological units; this comes closer to early NHG use. Scherer (2012) considers spellings like <Reise-Zentrum> ‘travel center’ (instead of <Reiszentrum>) as reader-oriented reduction of complex structures – potentially comparable to the compound stress pattern in spoken language. It remains to be shown whether such cases are a continuation of earlier use that was displaced from standard texts or a development in its own right.

In light of the clear differences between today’s usage in published texts and that of earlier centuries, it seems warranted to ask if hyphenation serves comparable functions: Today, prevalence of hyphenated spellings is low and even lower in compounds with linking elements. Between 1650 and 1750, hyphenated spellings were very frequent and even more frequent in compounds with linking elements (see Table 3).

Table 3. Quantitative differences in hyphenation of N+N compounds between 18th and 20th century (*n* = 1,289, GerManC; 5,332, Grube 1976)

	1700–1750	1966–1973
LE	87%	3.0%
no LE	64%	9.2%

22. As vowel-initial nouns are today preceded by a glottal stop, this segmentation problem has no correlate in spoken German.

Today, we consider linked compounds as inseparable precisely because they contain linking elements, cf. Heller (2000: 27):

Und wenn der Bindestrich sogar gesetzt wird, wenn ein Fugenelement die Zusammenschreibung verlangt, wird das Gliedern zur bloßen Manie.

‘And if a hyphen is even used when a linking element demands writing the word as a closed compound, segmentation becomes pure mania.’ (my translation, KK)

This may be due to the fact that linking elements enhance the structure of the first constituent so that its phonology becomes more prototypical: In most cases, *-(e)n-* forms or retains trochees and therefore creates elements that follow a stress pattern typical for present-day German (Wegener 2003: 446–447). For *-s-*, the case is not so clear, but it often attaches to first constituents ending in a plosive (and never in vowels), so it creates consonant clusters which contain extrasyllabic elements in many cases. These are typical for word boundaries in present-day German (Nübling & Sczepaniak 2008: 15–16). The linking element serves as a segmentation aid in itself and linked compounds are in no need of further, purely graphic markers.

This seems not to have been the case in early NHG. One of the first grammarians to mention hyphenation in complex words is Schottel (1663: 674–675), shortly after it first occurs in my corpus.²³ In reference to compounds (including compounds with adjectives as one or both constituents) he asserts:

[...] daß zwei/ etwas sonderlichs bedeutende Wörter/ durch das Mittelstrichlein werden aneinander gefügt/ damit der Leser also den Zusammenstand des Verstandes deroselben vernehmen/ und nach dem letzten/ als hierin dem Grundworte/ die Meinung hauptsächlich richte: Denn das vorderst oder beifügige Wort/ allemahl das letztere Wort gleichsam erkläret.

‘[...] that two words with distinct meanings are combined by a hyphen (“middle-dash”) so that the reader may understand the combination of their meaning while determining the main sense from the second word: The first or accompanying word explains the second word.’ (my translation, KK)

This suggests that, like today, the hyphen is employed as segmentation aid – but on a much larger scale and in different cases: Segmentation seems to have been hindered especially in linked compounds. I assume that this compounding

23. The hyphen in this function first developed during the 16th century. The earliest attestations in German texts found in an unsystematic search (in book titles listed in VD 16) are from 1590, <Jahrs=Tag> ‘anniversary (year’s day)’, <Gnaden=Wundern> ‘miracles of mercy’ (VD16 P 4640). (The Bonn ENHG Corpus, which ranges from 1350 to 1700 and therefore could include earlier uses, shows hyphens from 1650 onwards only.)

pattern was still marked in early NHG time and that marked forms were made more explicit by hyphenation (as they are today in case of abbreviations, names and the like). This is supported by Bödiker's (1701: 36) enumeration which includes other marked cases, namely "intransparent" combinations and "unusual/strange" words.

The use of hyphens in linked compounds shows their connection to syntax as well as their transition to word formation (see also Solling 2012: 286). As unparadigmatic linking elements have spread before the heyday of hyphenation, I assume that hyphenation is not an indicator of unclear categorical status. This is supported by the fact that hyphens occur in a large number of unlinked compounds as well (see Figure 8 above).²⁴ It remains unclear why hyphenation caught on relatively late. Solling (2012: 292) assumes that at that time spelling of linked compounds was not fixed yet, which is why hyphenation could gain hold. One could also assume that hyphenation was employed to distinguish linked compounds from syntactic structures. However, the data shows that separate writing had mostly become uncommon when hyphenation began to spread; Solling (2012: 295) points this out as well.²⁵ By 1800, hyphenation in compounds fell out of use. This indicates that the new compounding pattern was omnipresent in usage and had become an unmarked means of word formation.

6. Summary and conclusion

The present studies shed light on the genesis and spread of a new compounding pattern with linking elements in (E)NHG, using comprehensive corpus data that allows to consider the interplay of syntax and morphology.

Study 1 showed how reanalysis and replacement of non-specific genitive constructions are reflected in quantitative data: The percentage of compounds grows steadily from 1500 to 1710 while non-specific genitive constructions recede. As this

24. These are probably influenced by linked compounds (cf. Solling 2012: 291–292).

25. Solling (2012: 287–292) speculates that the basis of hyphenation in German was French spelling practice in the second half of the 16th century. However, the French hyphen was not employed to mark nominal compounds; these were uncommon at the time (Solling 2012: 288). He fails to show parallels in function that exceed simple presence of a sign at roughly the same time. As reason for the spread, he considers awareness of morphological structure, proof of which he sees in the "Stammwörter" ('stem words') concept popular at the time (Solling 2012: 288–292). This seems a rather weak argument to me: Hyphenation is not found in all cases of morphologically complex words and linked compounds are not hyphenated in such a way that the stem of the first constituent is exposed.

is also the case for postnominal non-specific genitives, we are witnessing not just simple cases of reanalysis. Genitive constructions are substituted by compounds even if the sequence of elements is not identical, the semantics are retained, but the form is altered. A prerequisite for such substitutions is the existence of the new pattern to coin linked compounds.

This new compounding pattern can also be shown by measuring productivity, as was done in study 2. A period of higher productivity in early NHG is suggested by two measures: From 1500 to 1710 the probability of new formations with paradigmatic linking elements surpasses that of unlinked compounds. Also, the rise of compounds with unparadigmatic linking *-s-* is evidence of their now purely morphological origin. Their usage frequency is still high in present-day German, but linking *-s-* almost only spreads to new compounds when its first constituent has used it before; it is at best marginally productive with loans.

Even though linking elements separated early on from the inflectional suffixes that once were their source, they adhere to a different spelling practice, shown in study 3. While in the first half of the 18th century, linked compounds are hyphenated in most of the cases, the rate is much lower for unlinked compounds. As separate writing had already fallen out of use for linked compounds, spelling must reflect a synchronically perceived markedness of these forms, not an earlier unclear categorical status. The high hyphenation rate ends a mere 100 years after the first attestation of unparadigmatic linking elements in my corpus, at this point in time the pattern seems to be fully integrated in German morphology, writers therefore cease to separate the formerly marked first constituents with linking elements graphematically. In present-day German, writers usually refrain from hyphenation when spelling linked compounds: Linking elements are an integral part of the first constituent; they usually improve or maintain the prototypical phonological structure of German words. At the same time, constituents that are synchronically marked because they do not conform to speakers' expectations (e.g. loans, abbreviations, names) still use hyphens to expose the morphological structure of their compounds.

Overall, we can observe that the shift from syntax to word-formation did not occur abruptly: The new pattern gradually developed and found its way into the core of the morphological system over several centuries, reaching most of its present-day status by about 1900.

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Note

The data and analysis offered here have since been expanded on and superseded by Kopf (2018), which defines compounds in a different way. However, as this paper takes a more traditional approach, its data is better suited for comparison with earlier studies.

Corpora

GerManC. Manchester University, Martin Durrell et al. Three genres (SCIE, SERM, NEWS) à 90,000 tokens used.

Mainz Corpus of (Early) New High German. Mainz University, Kristin Kopf, 2010–2013. Four of eight time periods used, 160,000 tokens.

Mannheim Corpus of Historical Newspapers and Magazines. Institut für Deutsche Sprache, 2013. Access to full texts via: <<http://hdl.handle.net/10932/00-01B8-AE41-41A4-DC01-5>>. Excerpts of 30,000 tokens from the following newspapers were used: Das Pfennig=Magazin für Belehrung und Unterhaltung, Nr. 9 (1943); EUROPA Wochenschrift für Kultur und Politik (1905).

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The development of non-paradigmatic linking elements in Faroese and the decline of the genitive case

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This paper focuses on the development of linking elements in Faroese. It aims to capture the whole dissociation process of the Faroese linking elements, which comprises the ongoing decline of the genitive case as well as the distributional, functional and formal changes within the linking system. The first part of the article deals with the development of the verbal, prepositional and attributive genitive in the history of Faroese. Based on existing corpus studies, we will present the strongly restricted use of the genitive in Contemporary Faroese: The genitive is not used as a verbal case at all. As a prepositional case it is limited to two prepositions (*til* 'to' and partly as a complement of (*i*)*millum* 'between'). Genitive attributes expressing different semantic relations like possession or family relationship are no longer in use either – they are replaced by analytic constructions, e.g. *hús-ini hjá gentu-n-i* 'house-DEF.NOM./ACC.PL by girl.NNOM.SG-DEF-DEF.DAT.SG' 'the girl's house'. In the second part, the paper addresses the continuous development of linking elements, which originate from the genitive endings, e.g. *dag-s verk* 'day-GEN.SG work.NOM.SG' > *dag+s+verk* 'day's work'. Here, it will be shown that the contemporary linking system in Faroese comprises different stages of formal and functional development. The focus will then lie on the ongoing development of the non-paradigmatic linking elements, i.e. linkers which are no more homophonous with any inflectional ending of the noun. Of particular interest is the ongoing context-driven variation between the paradigmatic linker +*ar*+ and the non-paradigmatic +*a*+. An acceptability test with novel and nonsense compounds will show a preference for the non-paradigmatic variant +*a*+ instead of the paradigmatic +*ar*+ before obstruents, e.g. *mjólk+a+pakki* instead of *mjólk+ar+pakki* 'milk carton'.

1. Introduction

In Contemporary Faroese, the morphological boundary of N+N compounds can be filled by linking elements, e.g. +*s*+ in *dag+s+verk* 'day's work', *úthurð+s+lykil* 'front door key' and *formalitet+s+spurningur* 'question of formality'. Linking

elements, defined on purely formal grounds as proposed by Kürschner and Szczepaniak (2013), are phonological and/or graphematic material that appears between the immediate constituents of word-formation products.¹ Their phonological, graphemic and syntactic behavior indicate that they are strongly associated with the first constituent: They close its final syllable and are not subject to resyllabification, e.g. $+s+$ in $[dags]_{\omega}[ar.bei.ði]_{\omega}$, not $*[dag]_{\omega}[sar.bei.ði]_{\omega}$ or $*[da]_{\omega}[gsar.bei.ði]_{\omega}$. In word division at the end of a line, they also close the graphemic syllable and do not shift to the next line: $\langle dags \rangle \langle arbeiði \rangle$. When two compounds are coordinated, the linking element always attaches to the first constituent: $[dag+s+]_N +$ or $[pening+s+]_N + [verk]_N$ or $[úthurð+s+]_N + [lykil]_N$ etc. In the process of compounding, the linking element extends the noun stem into a compounding stem form to which the second constituent attaches, e.g. $[dag+s+] + verk$ 'work', $+ferð$ 'journey', or $+ljós$ 'light'. The choice of linking elements depends on the first element, which itself defines the inventory of possible linking elements. For Faroese, any influence of the second element is yet to be reported.

The compounding stem form is in many cases homophonous with the inflectional (historical) genitive singular or genitive plural form of the noun: The compounding stem form $dag+s+$ is homophonous with the historical genitive singular inflectional form $dag-s$ (from *dagur* 'day'). Following Fuhrhop (1996), we call such linking elements paradigmatic. The formal behavior described above as well as the homophony is due to the fact that linking elements in Faroese developed out of the genitive endings (as they also did in other Germanic languages; see Fuhrhop & Kürschner 2015; Indriðason 2011; Nübling & Szczepaniak 2013; Szczepaniak 2016).² Although all linking elements which can occur in Faroese

1. The focus of this article is on N+N compounds. However, linking elements in Faroese are not restricted to N+N compounds: The V+N compounds contain $+i+$, e.g. *renn+i+breyt* 'running track' (verb *renna* 'to run'), less frequent also $+u+$ and $+a+$ (see Thráinsson et al. 2004: 207). Other types of compounds exhibit linking $+s+$, e.g. compounds with pronouns as first constituent, e.g. in *sjálv+s+virðing* 'self-respect', or compounds with adjectives serving as a second constituent, e.g. in *evni+s+fastur* 'solid'. Furthermore, linking elements are also used in derivatives, e.g. with $-lig$ and $-leys$ like in *handil+s+ligur* 'concerning business' (*handil* 'business'), *hug+a+ligur* 'delightful' (*hugi* 'mind'), *hjálp+ars+leysur* 'helpless' (*hjálp* 'help') or *bygd+ars+ligur* 'rustic' (*bygd* 'village'), see Thráinsson et al. 2004: 216–217; Petersen 2015a: 58–69).

2. Genitive markers are not the only source of linking elements. For example in German, an older layer of linking elements exists which can be traced back to the Germanic primary suffixes, i.e. $+e+$ in *Tag+e+buch* 'day+LE+book' 'diary' (Schweikle 2002; Sonderegger 2003; Fuhrhop 1996, 1998; Wegener 2005; Nübling & Szczepaniak 2013; Szczepaniak 2016). Still another source is observable in Contemporary English, where the constituents of coordinated

N+N compounds, i.e. *+s+*, *+a+*, *+ar+* and *+u+*, formally resemble the genitive endings, their distribution is not constrained by the respective inflectional class any more. Hence, in many cases the compounding form of a lexeme differs from its inflectional forms. Following Fuhrhop (1996), we call these linking elements non-paradigmatic.

As shown in Table 1, all linking elements can be used paradigmatically (LE), while only two of them, *+s+* and *+a+*, are allowed in non-paradigmatic contexts. The linking *+s+* occurs in compounds like *elli+s+heim* (old.age+NPLE+home) ‘old people’s home’, while the inflectional paradigm of the noun *elli* does not contain the form **elli-s* at all. The distinction between the paradigmatic and non-paradigmatic use of *+a+* is not as clear, since the linking *+a+* (as we will show in this paper) can occur as a context-dependent variant of *+ar+*, e.g. in *havn+a(r)+maður* (harbour+(NP)LE+man) ‘man from Tórshavn’, where both, *+ar+* as well as *+a+* are paradigmatic. In other compounds, like in *mjólk+a(r)+pakki* (milk+(NP)LE+carton) ‘milk carton’, the compounding stem form *mjólk+a+* is not homophonous with any inflectional form, since the genitive plural form *mjólka* is semantically blocked (*mjólk* is a mass noun).

The notion of the paradigmatic and non-paradigmatic use of linking elements refers to their formal behavior, i.e. to the question of whether a particular linker in a particular compound still formally corresponds to an inflectional ending of the lexeme. In this respect, the non-paradigmatic linking elements represent a more advanced stage of development than the paradigmatic ones, since they show new distribution patterns, independent of the inflectional class of the given noun. Therefore, we can only distinguish within the class of paradigmatic uses whether in a particular compound the linking element can still carry (at least part of) the meaning of its inflectional source (i.e. inflectional endings). The compound *bygd+ar+vegur* ‘village road’ denoting a road within a village (cf. *bygd-ar* ‘village-F.GEN.SG’) can be opposed to *bygd+a+gøta* ‘path between villages’ (cf. *bygd-a* ‘village-F.GEN.PL’). While the linking elements can contribute to the number distinction included in the semantic content of these compounds, in many cases the existing paradigmatic linking element does not “match” the semantic content of the compound: For example, the genitive plural form *fjall-a* ‘mountain-N.GEN.PL’ and *prest-a* ‘priest-M.GEN.PL’ cannot be used in the semantic periphrasis of

compounds are linked with *cum*, a Latin borrowing which developed into a bound form linking members of compounds, e.g. *governess-cum-piano-teacher* or *emotional-cum-intellectual* (Renner 2013). In this paper, we can leave aside the alternative sources of linking elements, since it can be assumed that the Faroese linking elements are derived from genitive markers.

Table 1. The form of paradigmatic and non-paradigmatic linking elements in Faroese N+N compounds (see Thráinsson et al. 2004: 204–212; Petersen & Szczepaniak 2014; Petersen 2015a: 64–68; Petersen 2015b)

linking element	paradigmatic linking elements (LE) (homophonous with the inflectional ending)	non-paradigmatic linking elements (NPLE) (non-homophonous with the inflectional ending)
+s+	<i>skip+s+maður</i> skip+LE+man 'crew member' (<i>skip-s</i> 'ship-N.GEN.SG')	<i>elli+s+heim</i> old.age+NPLE+home 'old people's home'
+a+	<i>fjall+a+tindur</i> mountain+LE+top 'mountain top' (<i>fjall-a</i> 'mountain-N.GEN.PL')	+a+ as context-dependent variant of +ar+, e.g. <i>havn+a(r)+maður</i> harbour+LE+man 'man from Tórshavn' <i>mjólk+a(r)+pakki</i> milk+LE+carton 'milk carton' (<i>mjólk-ar</i> 'milk-F.GEN.SG' * <i>mjólk-a</i> 'milk-F.GEN.PL', <i>mjólk</i> is mass noun)
+ar+	<i>bygd+ar+vegur</i> village+LE+road 'village road' (<i>bygd-ar</i> 'village-F.GEN.SG')	–
+u+	<i>gent+u+kór</i> girl+LE+choir 'girls' choir' (<i>gent-u</i> 'girl-F.NNOM.SG')	–
+na+	<i>eyg+na+brúgv</i> eye+LE+brow 'eyebrow' (<i>eyg-na</i> 'eye-N.GEN.PL')	–

fjall+a+tindur 'mountain top', which is a top of one mountain and *prest+a+garður* which is the vicarage of one priest. Similarly, the non-nominative singular form *gent-u* 'girl-F.NNOM.SG' does not match with the semantics of *gent+u+kór* 'girl's choir' meaning a choir which consists of more than one girl (see also discussion in Thráinsson et al. 2004: 205, 208).

The non-paradigmatic use of +s+ as in *elli+s+heim* in Table 1 is a stage of development not only observable in Faroese, but also in other Germanic languages (see Indriðason 2011; Nübling & Szczepaniak 2013; Fuhrhop & Kürschner 2015). In contrast, the context-dependent variation between +a+ and +ar+ can be

seen as a singular process of dissociation, observable only in Faroese. Concerning the behavior of the lexeme *bygd* in *bygd+ar+vegur* and *bygd+a+gøta* Thráinsson et al. (2004: 205) state:

Here it would seem that the choice between Gsg. and Gpl. looks logical in many instances, such as *bygdarvegur* ‘village road’ (road within one village, hence Gsg. *bygdar-*) vs. *bygdagøta* ‘path between villages’ (two (or more), hence Gpl. *bygda-*). The facts are somewhat more complicated, though. First, the difference in the pronunciation between an *-ar-* and *-a-* on the boundary of compound words can be quite minimal, the /r/ in Faroese usually being an approximant rather than, say, a thrill. For this reason it is frequently quite difficult to hear whether the *-r-* is there or not (and this can, of course, contribute to the reanalysis of the relevant forms). [...] Second, it seems that speakers do not have very clear intuition about the choice between singular and plural in examples of this sort. Thus it does not seem entirely logical to say (and write) *gularótarpakki* for ‘pack of carrots’ (with the Gsg. ending *-ar* on the first part even though there must be several carrots in the pack). Although the *-r-* in *gularótarpakki* would naturally be very weak or even dropped in the spoken language, one might expect speakers to have an intuition about its presence and thus not write it when it is not “logical”. This does not seem to be the case, though. Similarly, if the speakers had clear intuitions about the meaning of Gsg. vs. Gpl. of the first part of the so-called genitive compounds, one would not expect forms like *mjólkapakki* ‘milk cartoon’ (with the Gpl. ending *-a* on the first part), since *mjólk* ‘milk’ has no plural (the more regular *mjólkarpakki* also occurs and is possibly more common).

Obviously, the formal variation between *+ar+* and *+a+* addressed by Thráinsson et al. (2004: 205) is not limited to paradigmatic cases, where both inflectional endings are part of the paradigm of a given lexeme (like *bygd* ‘village’). It is rather the source of new non-paradigmatic use of *+a+* when combined with mass nouns like *mjólk* ‘milk’, where no plural (genitive) form exists. The explanation for this “confusion” between *+ar+* and *+a+* given by Thráinsson et al. (2004: 206) is twofold: On the one side, they interpret the variation as “an indication of the weak status of the genitive in modern Faroese”. On the other side, they attest a dissociation of linking elements from the genitive source, when they say that “the first part of genitive compounds is based on (or derived from) the genitive form but does not necessarily have the meaning of a genitive (singular or plural) anymore, since this is word formation not inflection” (Thráinsson et al. 2004: 206).

This article aims at investigating the dissociation process of linking elements, the obvious formal wealth of which stands in stark contrast to the fact that the genitive case is almost out of use today. We assume that the development of linking elements started with the reanalysis of complex noun phrases with a prenominal genitive modifier as genitive (improper) compounds as in (1). The term *improper compounds* (“uneigentliche Komposita”) was introduced by Grimm (1826: 407)

in order to set them apart from so called *proper compounds* (“eigentliche Komposita”), where the first constituents do not contain any inflectional ending. This reanalysis, as proposed by Demske (1999, 2001) for German, can be analogously assumed to be true for Faroese, where only indefinite nouns (with generic reference) were subject to reanalysis. Compounds like **kongsinsland* ‘the king’s country’, where the first part would be homophonous with the definite form of a noun (here: *kong-s-ins* ‘king-GEN.SG.-DEF.GEN.SG’ like in *kongsins land*), do not exist in Faroese.

- (1) Reanalysis of complex noun phrases with prenominal genitive attribute as improper (genitive) compounds

$[[dags_N] verk_N]_{NP}$	>	$[dag+s+verk]_N$
$[[day's_N] work]_{NP}$	>	$[day+LE+work]_N$
‘day’s work’		

The reanalysis of genitive attributes as compounds’ modifiers has led to the functional change from the former inflectional units into linking elements. As shown in Figure 1, we assume that the genitive case system and the linking system grew apart after the period of reanalysis. The morphological behavior of attributive phrases, used for the (e.g. temporal) specification of the head noun, e.g. *dags* in $[[dags] verk]$ ‘day’s work’, are in general licensed externally, i.e. the genitive case of the attributive noun is required by the syntax. Case suffixes (inflectional elements) are obligatory here. Being reanalyzed as a modifier, the noun is no longer controlled by the syntax. Hence, the original function of case marking is lost. The subsequent (ongoing) formal and functional development contributes to the dissociation of the inflectional source.

In contrast to the genitive endings, linking elements are not required in every genitive compound, e.g. *dag+løn* ‘day-wage’ but *dag+s+arbeiði* ‘day’s work’ (Hamre 1961). Many compounds are even unstable, e.g. *dag+løn/dag+s+løn* ‘daywage’, *dag+verk/dag+s+verk* ‘day’s work’. In the course of analogical extension, linking elements (more precisely: the compounding stem form) also became part of non-genitive compounds,³ e.g. *dag+s+møði* ‘day’s toil’, which should be paraphrased with ‘the toil during the day’, and they spread to non-paradigmatic contexts, e.g. in the above mentioned *elli+s+heim* ‘old people’s home’. Hence, the existence and the behaviour of linking elements cannot be treated as arguments for the existence or weak status of the genitive case in Faroese (cf. the above citation of Thráinsson

3. The notion of genitive and non-genitive compounds refers to the possibility of paraphrasing the meaning with a genitive (in English *of*-) phrase, e.g. genitive compound *dag+s+arbeiði* ‘day’s work’ (‘work of a day’) vs. non-genitive compound *dag+s+møði* ‘day’s toil’, which should be paraphrased with ‘the toil during the day’.

et al. 2004: 206). As shown in Figure 1, after the reanalysis two different processes have to be distinguished: the ongoing decline of the genitive on the one hand and the formal and functional dissociation of the linking system on the other.

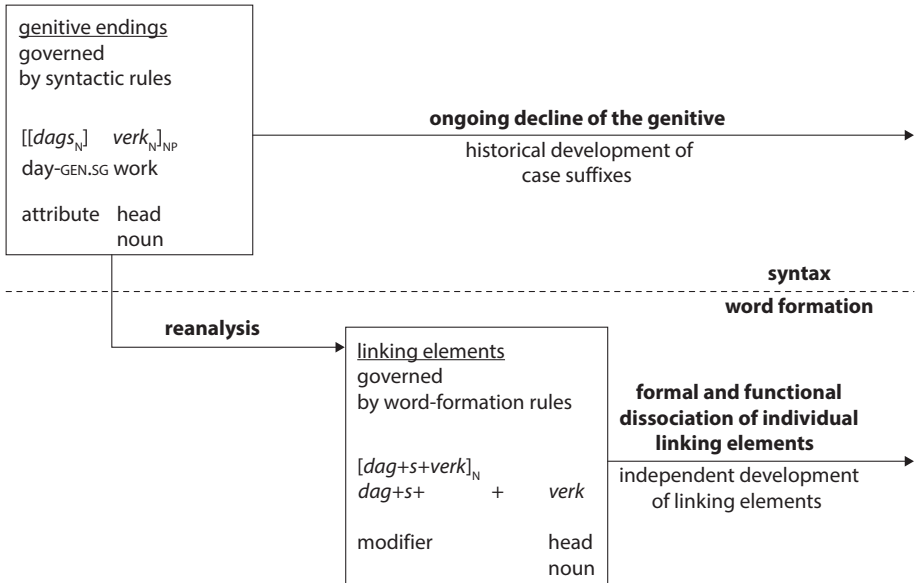


Figure 1. Reanalysis and subsequent dissociation of linking elements from their inflectional sources

Thus, in this article we strictly separate the decline of the genitive from the development of linking elements. For this reason, we first outline the decay of the genitive case in Faroese in Section 2. Based on the historical grammaticography as well as on the existing studies, we show that the genitive is completely lost as a verbal case. It remains in use only with a limited set of prepositions. The genitive attributes – the source of linking elements – are at most part of the passive knowledge of Faroese speakers. The gradual (functional and formal) dissociation of linking elements from their inflectional sources is the subject of Section 3. In 3.1 the formal dissociation will be discussed. The functional dissociation (3.2) includes not only the loss of the original inflectional meaning, but also the development of new functions which are restricted to the products of word formation. E.g. the linking +s+ used after feminine nouns (e.g. *hurð* ‘door’) marks complex first parts like in *út+hurð+s+lykil* ‘front door key’, while the non-complex first parts combine only with the original genitive marker +ar+, e.g. *hurð+ar+lykil* ‘door key’. In Section 3.3 we will deal with the ongoing process of the specific case of formal dissociation with the development of the non-paradigmatic +a+

(as in Table 1). Our acceptability test reveals that feminine mass nouns like *mjólk* ‘milk’ allow for two compounding stem forms *mjólk+ar+*, which is paradigmatic (i.e. homophonous with the historical genitive singular form), and the new form *mjólk+a+*. Since *mjólk* ‘milk’ is a mass noun and occurs only in the singular, the new linking element *+a+* is not homophonous with any inflectional ending of this noun. Our test shows that both linkers develop into formal variants depending on the phonological context. The new variant *+a+* tends to be used in front of obstruents (e.g. *ar.p > a.p*), while the older one *+ar+* is preserved in front of sonorants (e.g. *ar.n*).

2. The decline of the genitive case in Faroese

2.1 Genitive case in Faroese grammaticography

In many Faroese grammars, Andreassen & Dahl (1997) and Davidsen & Mikelsen (2011) among others, genitive forms are listed in the inflectional paradigms on equal footing with other cases. In these grammars the impression is given as if this genitive case were still fully productive. However, it has actually posed a problem for Faroese grammaticography since the 19th century. As Weyhe (1996) observes, the grammarians’ treatment of the genitive is rather inconsistent and affected by uncertainty. Serious difficulties in the correct identification of the genitive are already apparent in the grammar written by Nolsøe around 1830. Nolsøe’s grammatical uncertainty as well as his treatment of Old Norse as the normative reference variety for the reconstruction of the uncertain genitive forms are characteristic for how grammarians dealt with the genitive at that time. In Hammershaimb’s grammar (1854, revised 1891) the genitive forms are still listed, but in almost all paradigms the plural forms and in some even the singular forms are put in brackets (see Hammershaimb 1891: lxxi–lxxxvii). Hammershaimb already even made the observation that the synthetic genitive tends to be replaced in the spoken language of his time by prepositional constructions, especially with the originally local preposition *hjá* ‘at’: “Ejeform forekommer iøvrigt udenfor sammensætninger sjælden i daglig tale og erstattes almindelig ved forholdsord (*av, í, á*, men helst *hjá*)”⁴ (Hammershaimb 1891: lxxi). Nevertheless, the goal of preserving the genitive as a part of the standard grammar of Faroese was still strongly pursued in the grammar by Dahl (1908). In this grammar, which was used in Faroese schools

4. Transl. „Moreover, the genitive occurs very seldom outside compound nouns in everyday language. It is generally replaced by prepositions (*av, í, á*, but preferably *hjá*).”

until it was replaced by Andreassen & Dahl in 1997, the genitive is still presented as part of the inflectional system.

The status of the genitive in Modern Faroese was first questioned in Lockwood's grammar printed in 1955. In recent grammars and grammatical descriptions of Faroese, e.g. Barnes & Weyhe (1994), Thráinsson et al. (2004), Petersen & Adams (2009) and Petersen (2015a), the genitive is listed in parentheses – the practice introduced already by Nolsøe (around 1830). Judging by the problems occurring already in the early grammars of Faroese, the decline of the synthetic genitive must have started before the 19th century. Regardless of the grammaticographic efforts (later and still ongoing, see Henriksen 2010) to preserve the genitive in the standard grammar, where the genitive was and is one of the linguistic phenomena used for the construction of extra-linguistic identity (in order to emphasize similarity to Icelandic and Old Norse), the genitive is almost out of use in Contemporary Faroese. In the next section we will sketch the functional decline of the synthetic genitive as a verbal and prepositional case as well as its attributive use.

2.2 The functional decline of the synthetic genitive

Recent research (Hamre 1961; Steintún 2013; Petersen & Szczepaniak 2014) and new descriptive grammars of Faroese by Lockwood (1977), Thráinsson et al. (2004), Petersen & Adams (2009) and Petersen (2015a) agree that the genitive is almost completely extinct in Modern Faroese. Since in-depth diachronic corpus-based studies on the decline of the genitive in Faroese are still lacking, we will start with the description of the functional status of the genitive today and contrast this with its use in the historical data of so called *kvæði*, orally transmitted Faroese ballads originating from the 14th to the 17th centuries, written down since the 18th century.⁵

In Modern Faroese, there are no verbs governing genitive case anymore, while the use of genitive with verbs like *bíða* 'wait', *hevna* 'revenge', *njóta* 'enjoy' and *vænta* 'expect' is documented in the oldest Faroese ballads, e.g.: *bíðaði hon mín* (waited she.NOM me.GEN.SG) 'she waited for me' (Grundtvig & Djurhuus 1968: Brynhildartáttur, CCF 1, verse 88). In Contemporary Faroese, these verbs take a prepositional object or govern the dative or the accusative, e.g. *hon bíðaði eftir mær* (she waited after me.DAT) 'she waited for me', *bíða mær eitt sindur*

5. The Faroese ballads are from different times. Some date back to the Middle Ages and have been transmitted orally. Others are from around 1800, and some even show Danish influence (Weyhe 2011: 34). This means that the Ballad Language comprises different historical layers of the Faroese language.

(wait me.DAT a bit) ‘wait for me a bit’ or *eg hevni meg* (I revenge me-ACC) ‘I will have my revenge’.

The genitive as a prepositional case, i.e. case governed by a preposition, is limited to five prepositions, where the genitive alternates with the accusative: *til* ‘to’, *(i)millum* ‘between’, *vegna* ‘because of’, *innan* ‘within’ and *uttan* ‘outside’ (see Thráinsson et al. 2004: 176–180). The corpus study by Hamre (1961) on the morphosyntactic behavior of these five prepositions in “modern Faroese writings in *normal prose*” (Hamre 1961: 235) from the first half of the 20th century, “shows no occurrences at all of the genitive after other preposition than *til* and *millum*” (Hamre 1961: 240). From these two, only the preposition *til* ‘to’ can still govern the genitive of common nouns (see Table 2). Within the group of common nouns, the genitive case is limited to the indefinite noun phrases (66%, 230 occurrences in Hamre’s corpus). The genitive form of the definite and otherwise determined nouns is very rare (2%, 4 occurrences).

Table 2. The distribution of the genitive and the accusative with the preposition *til* ‘to’ in the contemporary Faroese prose (Hamre 1961: 237–240)

NP	total (abs.)	with genitive in %	with accusative in %
Nouns (indefinite)	356	66% (but only 84 types)	34% (65 types)
Nouns (definite or otherwise determined)	225	2%	98%
Personal pronouns	109	83%	17%
Place names	95	60%	40%
Personal names	17	18%	82%
“ <i>til</i> plus undecided case”	54		
Total:	= 856		

There is, however, a striking difference in the number of types. Within the 66% of all indefinite common nouns in genitive (230 tokens) only 84 types could have been identified. According to Hamre, the fact that the type-token-ratio of 84/230 is much lower (0.37) than that of the accusative occurrences (65/126; type-token-ratio of 0.52) indicates the ongoing loss in productivity of *til* as a genitive preposition. The use of the genitive seems to be restricted semantically to directional phrases (also in combination with place names, e.g. *til Havn-ar* ‘to Tórshavn-F.GEN.SG’ or *til Týskland-s* ‘to Germany-N.GEN.SG’)⁶ and formally

6. While the place names use the historical genitive forms like *til Havnar* or *til Týsklands*, questions are formed with *til hvønn* ‘to whom’ in the accusative instead of *til hvørs* in the genitive. For this reason, Skomedal proposes to analyze the genitive of place names as accusative 2

to indefinite (i.e. not determined) nouns. The tendency to use the accusative is even much stronger in contemporary spoken Faroese: As Steintún (2013) observes, the total occurrence of the genitive after *til* (16%, 1421 occurrences) in his spoken data is much lower than that of the accusative (84%, 7330 occurrences). Additionally, the tendency to use the genitive of personal pronoun is considerably smaller than in Hamre's written corpus, where the genitive of personal pronouns prevails with 83%. Steintún (2013) found only 149 occurrences of *til* + genitive (*til hansara* 'to he.GEN'), but 196 of *til* + accusative (*til hann* 'to he.ACC'). The use of the genitive of personal pronouns reaches only 43%. The observation that the genitive is restricted to indefinite forms is made also by Thráinsson et al. (2004: 63). They regard the use of the genitive of an indefinite noun as in (2a) as "quite common". When definite or modified by another (also syntactically free) determiner, the noun is used in the accusative as in (2b-c).

- (2) The use of the genitive depending on the determination of the nouns (see Thráinsson et al. 2004: 63)
- a. *oman til strand-ar*
down to beach-GEN.SG
'down to the beach'
 - b. *oman til hin-a strond-in-a*
down to the.other-ACC beach-DEF-ACC.SG
'down to the other beach'
 - c. *oman til ein-a vakr-a strond*
down to a-ACC pretty-ACC beach.ACC.SG
'down to a pretty beach'

The case alternation after *til* can be traced back to historical sources. Hamre (1961: 239) observes the same "confusion of cases after *til*" in the 18th-century manuscripts of Faroese ballads by Jens Chr. Svabo. In the same vein, Barnes (1978: 214) assumes that the genitive after *til* (as well as after *millum*) can be regarded as archaic even in the Ballad Language. The preposition *til* 'to' could govern the accusative, in a non-directional use, already in 1400 in *hun æthe Husa wik og Dal so mykit sem til Husa vik laa* 'She owned Husavík and Dalur and as much [land] that was in the vicinity of Húsavík' (Jakobsen 1907: 44).

While *til* 'to' still governs the genitive of nouns, the use of the genitive after the preposition (*i*)*millum* today is almost completely restricted to pronouns (79%). As Table 3 shows, the genitive of nouns is strongly avoided (7%) in favor of the accusative (94%).

(*hvønnfall* 2), see Weyhe (2013). Today it is even possible to coordinate them with place names in the accusative case, e.g. *vit fara til Danmarkar og Týskland* (we travel to Denmark-F.GEN.SG and Germany-N.ACC.SG).

Table 3. The distribution of the genitive and the accusative with the preposition (*i*)*millum* ‘between’ in the contemporary Faroese prose (Hamre 1961: 236–237)

NP	with genitive	% (abs.)	with accusative	% (abs.)
Preposed:				
Nouns	(<i>i</i>) <i>millum</i> + genitive	6% (7)	(<i>i</i>) <i>millum</i> + accusative	94% (112)
Pronouns	(<i>i</i>) <i>millum</i> + genitive	79% (15)	(<i>i</i>) <i>millum</i> + accusative	21% (4)
Place names	(<i>i</i>) <i>millum</i> + genitive	50% (5)	(<i>i</i>) <i>millum</i> + accusative	50% (5)
Personal names	(<i>i</i>) <i>millum</i> + genitive	17% (1)	(<i>i</i>) <i>millum</i> + accusative	83% (5)
Postposed:				
Nouns	genitive + (<i>i</i>) <i>millum</i>	92% (12)	accusative + (<i>i</i>) <i>millum</i>	8% (1)
Pronouns	genitive + (<i>i</i>) <i>millum</i>	100% (15)	accusative + (<i>i</i>) <i>millum</i>	0% (0)

Furthermore, Table 3 shows that the infrequent use of (*i*)*millum* ‘between’ as postposition is restricted to the genitive case (with one exception in the accusative). According to Hamre (1961: 236), all occurrences of the genitive preceding (*i*)*millum* “can safely be characterized as fixed expressions”.

The use of the genitive with the prepositions *innan* and *uttan* is restricted to “more or less fixed expressions” (Thráinsson et al. 2004: 176–177, see also Hamre 1961: 240). In contrast to productive prepositions like *á* in (3c), the combination of *innan* or *uttan* with the genitive case as in *innan garð-s* (inside wall-M.GEN.SG) ‘inside the walled-off area’, *uttan garð-s* (outside wall-M.GEN.SG) ‘outside the walled-off area’, *uttan dur-a* (outside door-N.GEN.PL) ‘outdoor’, *uttan veggj-a* (outside wall-M.GEN.PL) ‘outside’ or *uttanland-s* (outside country-N.GEN.SG) ‘abroad’ do not allow preposition stranding (see 3a and 3b). In FØROYSK ORÐABÓK ‘Faroese Dictionary’ (Poulsen et al. 1998), these and similar fixed expressions are classified as adverbs.

- (3) Prepositions *innan* ‘inside’, *uttan* ‘outside’ (with genitive) and ‘á’ (with accusative) and the preposition stranding
- a. **Garð-s* *var eg* *innan*.
 wall-GEN.SG was I.NOM inside
 ‘I was inside the walls.’
- b. **Dur-a* *var eg* *uttan*.
 door-GEN.PL was I.NOM outside
 ‘I was outside.’
- c. *Fjallið* *fór eg* *niðan á*.
 mountain.DEF-ACC.SG went I.NOM up on
 ‘I went onto the mountain.’

Vegna ‘because of’ is considered a genitive preposition by Thráinsson et al. (2004: 179), who however stress that the default case governed by this preposition is the accusative. The only example of the genitive after *vegna* they give contains the genitive of the demonstrative pronoun *tað* ‘that’ in *vegna tess* ‘because of this.GEN.SG’.

The use of the adnominal genitive in contemporary spoken and written Faroese has not been systematically analyzed yet. Grammars, introductions and review articles (Lockwood 1977: 28, 104; Thráinsson et al. 2004: 62; Barnes 2002: 1578, 1581) emphasize that the adnominally used genitive forms of nouns are limited to fixed expressions like *hjarta-n-s takk* (heart-DEF-GEN.SG thank.NOM) ‘sincere thanks’ or *ár-s-in-s tíð* (year-GEN.SG-DEF-GEN.SG time.NOM.SG) ‘time of the year’. According to Lockwood (1977: 104), the genitive is restricted to written language, where it can precede or follow the head, e.g. *móttakaran-s undirskrift* (recipient.DEF-GEN.SG signature.NOM) or *undirskrift móttakaran-s* (signature.NOM recipient.DEF-GEN.SG). Furthermore, he observes that the genitive of feminine nouns and genitive plural are less common and it tends to be postponed.

The decline of the adnominal genitive is addressed by Barnes (1978), who analyses its use in the Faroese Ballads and in texts written between 1890 and 1970. He states that the “[u]se of the gen. to modify nouns is [...] not archaic in the ballad context” (Barnes 1978: 214). However, the genitive is typically preponed and marked only once in definite forms, e.g. *kongjins land* ‘king’s land’, instead of the correct form with double genitive marking *kong-s-in-s* ‘king-GEN.SG-DEF-GEN.SG’. The formal instability comprises in some cases the loss of the gender related distinction: The feminine nouns originally using the genitive markers *-ar* and *-a* appear with the masculine/neuter ending *-(in)s*, e.g. *vörildins* from the feminine *vörild* ‘world’ (Barnes 1978: 215).

Instead of the adnominal genitive, in Modern Faroese a group of analytic, mostly prepositional constructions⁷ are used to express the genitive relations, including possessivity, kinship relation, subjectivity, and objectivity (cf. Nikiforidou 1991; Kardkovács & Tikk 2007). The complex system of analytic expressions still needs to be analyzed. We only give a short overview in Table 4 and leave this topic for further research.

7. Regionally (on Suðuroy) the accusative of proper nouns can be used to express possession, e.g. *trøggja Einar* ‘sweater.NOM Einar.ACC, *bátur Jákup* ‘boat.NOM Jákup.ACC’ (Weyhe 2015: 427). The accusative of possession is also used in place names like *Hav Hálvdan Úlvsson* (heavy stone.NOM.SG Hálvdan.ACC Úlvsson.ACC) ‘Hálvdan Úlvsson’s heavy stone-to-lift’.

Table 4. Analytic constructions for genitive relations in Modern Faroese

Genitive relations	Expression	Possessor	Example
Possessivity of alienable entities	the phrasal (clitic-like) <i>-sa</i>	proper names or kinship terms ⁸	<i>mammusa bilur</i> ‘mom’s car’, <i>Turiðsa súkkla</i> ‘Turið’s bicycle’
Family relationship	adnominal accusative	kinship terms	<i>mamma gentuna</i> (ACC) ‘the girl’s mom’, <i>mamma Jógvan</i> (ACC) ‘Jógvan’s mom’
Genitivus objectivus	the prepositional construction <i>X av Y</i>	all kinds of nouns	<i>leiðslan av seminarinum</i> ‘leading of the workshop’, <i>hertøkan av Russlandi</i> ‘the occupation of Russia’
Genitivus subiectivus	the prepositional construction <i>X hjá Y</i>	all kinds of nouns	<i>arbeiðið hjá lærarinnuni</i> ‘the teacher’s work’, <i>hertøkan hjá Russlandi (av Ukraine)</i> ‘Russia’s occupation (of the Ukraine)’
Possessivity (in a wider sense: the have and the belong to relation)	<i>X PREP Y</i> preferably <i>hjá</i> (Thráinsson 2015), <i>á</i> , <i>at</i> , <i>í</i> (originally local prepositions <i>hjá</i> ‘by, beside’, <i>á</i> ‘on’, <i>at</i> ‘to’ and <i>í</i> ‘in’) and the directional preposition <i>til</i> ‘to’	“notoriously idiosyncratic” (Thráinsson et al. 2004: 62) → due to the ongoing grammaticalization	<i>húsin hjá gentuni</i> ‘the girl’s houses’

3. Linking elements in Faroese

In this section, we focus on the formal and functional dissociation of linking elements from their inflectional source. Despite the fact that the genitive is (almost) completely lost, the system of linking elements is very complex and subject to still ongoing diversification, which makes Modern Faroese a particularly interesting case for studies on linking elements. In the following we will discuss the development path GENITIVE MARKER > LINKING ELEMENT with its different stages of formal and functional dissociation from their sources.

8. See however Petersen (2016), where it is shown that the phrasal clitic can be attached to names of institutions, pronouns and to nouns with the feature [human, animate] if they have a generic or specific meaning.

3.1 Formal dissociation from the inflectional endings

The independent development of linking elements affects their distributional rules and leads to deviations from the original assignment principles inherited from the genitive markers. We suggest the following steps for Faroese (cf. Nübling & Szczepaniak 2013 for parallel development in German):

1. The emergence of the paradigmatic linking elements

At this initial stage, there is no formal difference between the inflectional form and the compounding stem. The distributional rules of linking elements at this stage of development resemble those of inflectional endings. Thus, the choice of the linking element is determined by the lexeme, its declension class, and its gender. As long as the occurring linking elements follow the original assignment principles inherited from the inflectional endings, the form of the modifier noun remains homophonous with its inflected form, hence paradigmatic, e.g. *dag+s+* ‘day+LE+’ and *dag-s* ‘day-GEN.SG’. In order to identify the paradigmatic linking elements, their distribution has to be compared with the distribution of the genitive forms. Table 5 provides an overview of the distribution of the genitive forms in Faroese, which, again, are almost out of use. Their distribution depends on gender, inflection class, and number.

Table 5. Nominal inflection classes in Faroese (Thráinsson et al. 2004: 78–91)

	Masculine					
	Class 1	Class 2	Class 3	Class 4	Class 5/Class 6	
	Strong				Weak	
SG.	-s	-s/-ar	-s	-ar	-a	
PL.	-a	-a	-a	-a	-a	
	Feminine					
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6
	Strong				Weak	Strong
SG.	-ar	-ar	-ar	-ar	-u	-Ø
PL.	-a	-a	-a	-a	- a	-a
	Neuter					
	Class 1	Class 2	Class 3			
	Strong		Weak			
SG.	-s	-s	-a			
PL.	-a	-a	-a			

First of all, the distribution of the genitive endings is determined by number, gender and inflectional class. In the plural, there is only one common genitive form *-a*. The same form marks the genitive singular of weak masculine nouns (classes 5 and 6) and weak neuters (class 3). In the strong classes, except the strong feminine class 6, which is endingless, two different genitive markers, *-s* and *-ar*, are distributed as follows: In all strong neuter classes, only the *-s* ending occurs, while all strong feminine nouns share the *-ar* ending. The genitive *-s* appears in all strong masculine classes, except the class 4. Here, the ending *-ar* is the only possible genitive form.⁹ The masculine class 2 allows both endings. The weak feminine class 5 exhibits the ending *-u*.

The distribution of paradigmatic linking elements is not necessarily semantically justifiable. On the one hand, paradigmatic linking elements homophonous with plural markers can in some cases express plurality, presumably as a matter of inheritance, cf. *bygd+ar+vegur* ‘village road’ denoting a road within a village (cf. *bygd-ar* ‘village-F.GEN.SG’) and *bygd+a+gøta* ‘path between villages’ (cf. *bygd-a* ‘village-F.GEN.PL’) (see also Hanssen et al. 2013; Banga et al. 2013 for the plural reading of the linking *+en+* in Dutch). In other cases like *ffjall+a+tindur* ‘peak of a mountain’, the first part contains the paradigmatic *+a+*, homophonous with the genitive plural ending (*ffjall-a* ‘mountain-GEN.PL’), despite of the singular reading of the first part. Weak feminine nouns like *gent-a* ‘girl-NOM.SG’ (*gent-u* ‘girl-NOM.SG’) take the linking *+u+* independently of the singular or plural reading, e.g. in *gent+u+bátur* (girl+LE+boat) ‘boat with girls’ or ‘boat for girls’. Even though a rowing boat with girls contains more than one girl, the first part never occurs with *-a* or *-na* (homophonous with the plural endings). The same holds for *plát+u+búð* (record+LE+store), not **plátn+a+búð*, regardless of the fact that a record store contains more than one record.¹⁰

2. The development and spread of the non-paradigmatic linking elements (NPLe) At this stage, the linking elements formally resemble the inflectional elements, while their distributional rules are not equal anymore. Here, a formal difference between the inflectional form and the compounding stem emerges. At this stage of development, linking elements unfold their own distributional rules which are

9. There are few exceptions exhibiting the formal alternation between *-ar* and *-s*: *bekkur* ‘thwart, bench’ (*beks/bekkjar*) and *ryggur* ‘spine, vertebral column, ridge’ (with *rygs* or *ryggjar*, see Petersen 2015a: 89).

10. Note that the word-final vowels *-u* and *-i* are realized as [ə] in some areas, e.g. in Tórshavn. This can be the reason why some written compounds like *har+i+ungar* (hare-LE-babies) ‘leveret’ contain the linking *+i+* instead of *har+u+ungar* (*hara* ‘hare’, weak feminine noun) (*Føroya Sivla Hundafelag*, = [The Civil Dog-Organization of the Faroe Islands] 06/05).

strongly dependent on their new function to link together immediate constituents of word-formation products. These new (language specific) formal dependencies operate on different levels of language fulfilling different functions (see Section 3.2).

The formal separation of the linking system takes place, when (at least some) linkers develop their own assignment rules and start to form modifier nouns which are not homophonous with the inflected forms presented in Table 5. In Faroese, such non-paradigmatic linking with *+s+* (< *-s* 'GEN.SG.MASC/NEUT' in the masculine inflectional class 1, 2 and 3 and the neuter class 1) attaches to abstract feminine nouns belonging to the inflectional class 6 like *elli* 'old age' and *gleði* 'happiness', e.g. *elli+s+akfar* (old-NPLE-car) for 'vintage car', *gleði+s+stund* (happiness-NPLE-hour) 'time of happiness'. As *elli* and *gleði* are feminine nouns of the class 6 (from the Old Norse *īn*-stems), they exhibit a zero genitive ending in their inflectional paradigm.

The linking *+s+* is also used non-paradigmatically after morphologically complex first parts, e.g. *úthurð+s+lykil* 'front door key', but *úthurð-ar* 'front door-GEN.SG' (see Section 3.2 for the question of the genuine functions of linking elements). This non-paradigmatic use of the linking *+s+* is documented in historical texts. In *Húsavíkarbrøvini* (Letters from Húsavík on the island Sandoy) from the beginning of the 15th century, the complex first part in *Husa viks gods* 'Húsavík estate' is linked with *+s+* (*Húsa vík+NPLE+góðs*) in the year 1403 (Jakobsen 1907: 36), while the inflectional form of *vík* 'bay' is *vík-ar* 'bay-GEN.SG'. (Note that the title *Húsavíkarbrøvini* is a later name that was given to these letters by Jakobsen in 1907.) Such examples show that the non-paradigmatic linking *+s+* appeared very early, even before the genitive was lost. The non-paradigmatic *+s+* after a complex first part of a compound is very common in place names. Table 6 based on Simonsen (1993, 1995) contrasts place names with compositionally complex first parts with *vík* 'bay', *rók* 'rock ledge in the bird cliff', *gjógv* 'cliff' and *brúgv* 'bridge', which tend to the linking *+s+*, and the same lexemes in a morphologically non-complex first parts, which are linked with *+ar+*. The number of place names with non-paradigmatic *+s+* is given in brackets.

While the non-paradigmaticity of the linking *+s+* is due to its expansion to feminine first parts, there are also some cases of nouns conserving old inflectional forms in compounds. In Faroese, some compounds conserve old inflectional forms, e.g. *byrð+ar+band*, *byrð+ar+tog* 'rope to a load of hay', *byrð+ar+lendi* 'land that is enough for a load of hay' and *byrð+ar+leypur* 'wooden creel for carrying a load in'. The compositional stem form *byrð+ar* goes back to the old genitive singular of the Old Norse *byrðr* 'burden', which was an *ijō*-stem, an inflectional class that has not survived in the development from Old Norse to Faroese. The noun *byrða* 'burden' has a mixed inflection in Faroese. In the singular it behaves like a

Table 6. Morphologically determined non-paradigmatic linking +s+ in place names (Simonsen 1993, 1995)

Simple first part (+ar+)	Complex first part (+s+)
<i>Vík+ar+tangi</i> (cf. <i>vík-ar</i> 'bay-GEN.SG') 'bay+LE+pit'	<i>Hoyvík+s+hólmur</i> 'hey+bay+NPLE+isle' (39 place names with + <i>vík+s+</i>)
<i>Gjógv+ar+á</i> (cf. <i>gjógv-ar</i> 'canyon-GEN.SG') 'canyon+LE+river'	<i>Trøllagjógv+s+áin</i> 'troll+canyon+NPLE+river' (13 place names with + <i>gjógv+s+</i>)
<i>Rók+ar+endi</i> (cf. <i>rók-ar</i> 'rock ledge-GEN.SG') 'rockledge+LE+end'	<i>Breiðrók+s+stíggjur</i> 'broad+rock ledge+NPLE+road' (9 place names with + <i>rók+s+</i>)
<i>Brúgv+ar+endi</i> (cf. <i>brúgv-ar</i> 'bridge-GEN.SG') 'bridge+LE+end'	<i>Trælabrúgv+s+áin</i> 'slave+bridge+NPLE+river' (5 place names with + <i>brúgv+s+</i>)

weak noun: *byrð-a* for NOM.SG, *byrð-u* for NNOM.SG, but it has the strong ending -ar (not -ur as the weak nouns have) in the nominative and accusative in the plural (Petersen 2015a). The former genitive singular -ar is conserved in the compounds as a linking element. Hence, the behaviour of the linking elements +ar+ in connection with *byrða* is conservative and non-productive. In contrast, the non-paradigmatic +s+ is used productively (see Section 3.2).

3. The rise of context-driven variants

In Contemporary Faroese, there are many examples of *r*-deletion, which generates variants, e.g. *bygd+ar+vegur* 'village+LE+road'/*bygd+a+vegur* 'village+LE+road' (with the singular reading of a 'road within a village'). As we will show in Section 3.3, this variation between +ar+ and +a+ is context-driven and limited to compounds. The genitive endings did not originally vary according to the quality of the following sound. It should, however, be noticed that the new context-driven variant +a+ is homophonous with a genitive ending.

3.2 The functional dissociation of linking elements: The development of new functions

The main function of linking elements is to signal the morphological boundary. However, in the course of their development, linking elements have adopted new functions which are related to the prosodic, phonological, morphological, or semantic structure of the compound. The new distributional tendencies make clear that the linking elements fulfill a series of new functions. Thus, they mark different groups of compounds. For Faroese the following functions can be identified:

1. Prosodic optimization (maintenance or production of trochaic structures)
The behavior of feminine nouns (class 6) like *elli* 'old age' or *gleði* 'happiness' can be seen as a case of prosodic optimization. These disyllabic feminine nouns maintain their trochaic structure, which is preferred in Faroese (see Kager 1999: 125), and adopt +s+ as a linking element, e.g. *elli+s+akfar* (old+NPLE+car) 'vintage car', *gleði+s+stund* (happiness+NPLE+hour) 'time of happiness', and *gleði+s+ljóð* (happiness-NPLE-sound) 'sound of happiness'. A linking element homophonous with the genitive ending of other feminine classes +ar+ would lead to trisyllabic first parts like *[ed.li.jar-] instead of [ed.lis].

Another case of prosodic optimization can be observed when the paradigmatic syllabic linking element +a+ (homophonous with the genitive plural ending) is used with monosyllabic nouns like *fjall* 'mountain', even despite the singular reading of the first part, e.g. *fjall+a+tindur* 'peak of a mountain'. Here, the strong requirement of the trochaic structure cannot be met by paradigmatic linking +s+ (homophonous with the genitive singular ending), e.g. **fjal+s+tindur*. The same applies to *kong+a+ríki* (king+LE+empire) 'kingdom' instead of the expected *kong+s+ríki* and to *prest+a+garður* 'vicarage' instead of *prest+s+garður*.¹¹ The influence of the prosodic constraint on the choice of the linking element has not yet been investigated systematically. In some cases (e.g. *fjall*), the disyllabic form of the first part prevails: the Faroese Dictionary (1998) lists 72 compounds with *fjall+a+* as *fjall+a+toppur* 'mountain top', and only one with *fjal+s+* in the extinct adverb *fjal+s+megin* 'along the mountain(side)'.¹² The preference for the trochaic structure can also be observed in *tína/mína vegna* 'because of me' instead of the expected *tín/mín vegna*.

2. The marking of a (special kind of) morphological complexity in the first part
As mentioned in Section 3.1, one of the morphological contexts in which the non-paradigmatic +s+ occurred very early in the history of Faroese are morphologically complex first parts, e.g. *hurð+ar+lykil* 'door+LE+key' (simple modifier) vs. *úthurð+s+lykil* 'front door key' (complex modifier; but *hurð-ar* 'door-GEN.SG', see Table 7). Interestingly, the maintenance of +ar+ as a linking element of morphologically and phonologically simple modifiers can be explained with the

11. The monosyllabic first part of the compound is still used in the place name *Prestgarður* in the village Hvalba, while any new vicarage has the form linked by +a+ *prest+a+garður* (Eivind Weyhe p.c.).

12. There are, however, counter-examples like *dag(+s+)løn*. We thank the anonymous reviewer for this example. This concrete counter-example can presumably be explained by frequency: Since *dagur* is a high-frequency word, we assume that the compounding stem form *dag+s+* has been lexicalized very early and does not vary because of the frequent use.

tendency to keep the (last phonological) word disyllabic in the first part like in *hurð-ar+* [hu:.rar]_ω. The morphologically and phonologically more complex form like *úthurð* tend to reduce the number of syllables by using the non-syllabic *+s+*. Hence, the distribution of *+ar+* and *+s+* satisfies the phonological and morphological requirements.

Table 7. Linking *+s+* after morphologically complex first parts

Simplex first part	Morphologically complex first part
<i>hurð+ar+lykil</i> 'door+LE+key'	<i>úthurð+s+lykil</i> 'front door+NPLE+key'
<i>rót+ar+bløðka</i> 'turnip+LE+top'	<i>gularót+s+pakki</i> 'carrots+NPLE+packet'
<i>vík+ar+maður</i> 'Vík+LE+man' = 'man from Vík'	<i>Sandvík+s+tunnilin</i> 'Sandvík+NPLE+tunnel'

The affinity of *+s+* towards morphologically (as well as phonologically) complex first parts manifests itself also in the spread of non-paradigmatic *+s+* after derivationally complex first parts, as illustrated in Table 8: Being the first part of compounds, weak masculine derivatives with *-leiki*¹³ typically show *-leik+s+* as their compounding stem form. Native strong feminine derivatives with *-ing* for verbal abstract nouns may show up with *-ings* as in *siglingsferð* 'journey on sea' instead of *siglingarferð*. The same holds for strong feminine derivatives with the borrowed suffix *-heit* and with the borrowed (Latinate) suffix *-tíón*.¹⁴ *+s+* is the only linking element which can attach to loanwords like *konfirmation+s+kjóli* 'confirmation dress' or *transformation+s+grammatikk* 'transformations grammar'. The use of *+s+* in the context of recent borrowings might be analyzed as an important step in the dissociation process of linking elements and their separation from the inflectional source.

13. The suffixation can also exhibit the genitive form *-leiks*, which is marked as rare in FØROYSK ORÐABÓK 'Faroese Dictionary' (1998). Both forms did occur in Old Norse, that is *-leikr*, gen. sg. *-leiks*, and *-leiki* and *-leika* (Noréen [1884] 1970: 248).

14. We are very grateful to one of the anonym reviewers for the observation that both suffixes, *-heit* and *-tíón*, are transferred into Faroese with Danish borrowings, probably with the linking *+s+*. Hence, it is likely that these borrowed suffixations contributed to the development of *+s+* as the non-paradigmatic linking element. The same is in borrowed abstract feminine nouns with *-ing* like *forhálingsprosess* 'expansionprocess' (<www.fsn.fo/10_MIDogMAGN/Blad_16.pdf> 08 February 2016).

Table 8. The non-paradigmatic linking +s+ after derivationally complex first parts of compounds

Derivatives	Genitive ending	Examples
weak masculine derivatives with <i>-leiki</i> , e.g. <i>kærleiki</i> 'love'		<i>kærleik+s+boð</i> 'love+NPLE+commandment' <i>kærleik+s+lív</i> 'love+NPLE+life'
strong feminine derivatives with <i>-ing</i> , e.g. <i>sigling</i> 'sailing', <i>afturgjalding</i> 'refund ding'	<i>-a</i> 'GEN.SG/PL'	<i>sigling+s+ferð</i> 'sailing+NPLE+journey' <i>afturgjalding+s+ti</i> 'refunding+NPLE+time' ('refund time')
strong feminine derivatives with <i>-heit</i> , e.g. <i>stórheit</i> 'bigness', <i>meinigheit</i> 'church, community'		<i>stórheit+s+ørska</i> 'bigness+NPLE+madness' ('megomania') <i>meinigheit+s+ráð</i> 'church+NPLE+council'
strong feminine derivatives with <i>-tión</i> , e.g. <i>konfirmatión</i> 'confirmation', <i>transformatión</i> 'transformation'	<i>-ar</i> 'GEN.SG' (<i>-a</i> 'GEN.PL')	<i>konfirmation+s+kjóli</i> 'confirmation+NPLE+dress' <i>transformation+s+grammatikk</i> 'transformation+NPLE+grammar' ('transformations grammar')

3.3 The development of syllabic conditioning of +ar+ and +a+

Thráinsson et al. (2004: 64) mention variants like *havn+a+maður* besides *havn+ar+maður* 'man from Tórshavn' and explain that "vacillation in the forms of such compounds suggests, though, that speakers do not have a clear intuition that the first part is a genitive". They are certainly right. As we already mentioned in previous sections, the dissociation of the linking elements enables them to appear in compounds with different semantic relations between the first and the second part. In Faroese, this process is supported by the ongoing loss of the genitive case. In this section, we concentrate on this formal variation at the compound juncture. Our hypothesis is that the variation between +ar+ and +a+ is context-driven, conditioned by the sonority of the consonant in the onset of the second part. We hypothesize that the tendency for *r*-deletion is the higher the lower the sonority of the initial sound of the second part of the compound is, e.g. the tendency to use +a+ is higher in *mjólk+a(r)+pakki* (milk+LE+carton) 'milk carton' than in *havn+a(r)+maður* (harbor+LE+ man) 'man from Tórshavn'. Hence, the *r*-deletion seems to be dependent on the syllable contact between the first and second part and points to a weak phonological boundary between them. We further expect that the phonological insecurity, which is probably constrained by the syllable

structure, is reflected in writing, where the language user has to decide between +ar+ or +a+. Hence, we hypothesize a higher variation between both linking elements in the written language in front of graphemes corresponding to obstruents than in front of graphemes corresponding to sonorants.

In order to test the hypothesis, we conducted acceptability tests where Faroese native speakers had to evaluate eleven novel compounds containing different compounding stem forms of strong feminine mass nouns as well as combined with a second part starting with a sonorant [r, l, n] or an obstruent [k, p, tʃ, tʃ, ʃ]. The mass nouns used as modifiers are *øvund* ‘envy’, *tjóð* ‘nation’, *urt* ‘plant’, *jørð* ‘earth’, *fold* ‘earth’, *mjólk* ‘milk’ and *vild* ‘wish’. Here, the only possible paradigmatic linking element is +ar+, homophonous with the genitive singular ending. The linking element +a+ should be seen as non-paradigmatic, since the mass nouns cannot be set into the plural and, hence, the ending -a does not exist in their inflectional paradigms. Additionally, we tested compounding stem forms with linking +i+, +u+, and +s+. Hence, every novel compound (excluding those with *mjólk* as modifier) was given in five variants, e.g. *urt* +ar+/+s+/+i+/+a+/+u+ *djús* ‘plant juice’ (novel compound). All linking elements but +i+ go back to genitive endings. The linking element +i+ is common in verbal compounds, e.g. *renn+i+breyt* (run+LE+path) ‘running path’ with a verbal stem *at renna* ‘to run’. In contrast to other mass nouns, the noun *vild* ‘wish’ is hardly used as a first part of compounds. Additionally, we added a stimulus with a nonsense first part, introduced as a feminine noun for a fictive animal *piv*. In Table 9, the stimuli are grouped according to the initial sound of the second part.

Table 9. Stimuli with the feminine noun as the first part

Second part starts with a sonorant	Second part starts with an obstruent
<i>tjóð</i> +LE+ <i>rád</i> ‘nation+LE+advice’	<i>tjóð</i> +LE+ <i>kirkja</i> ‘nation+LE+church’
<i>urt</i> +LE+ <i>nøgð</i> ‘plant+LE+quantity’	<i>urt</i> +LE+ <i>djús</i> ‘plant+LE+juice’
<i>fold</i> +LE+ <i>ljóð</i> ‘earth+LE+sound’	<i>mjólk</i> +LE+ <i>skip</i> ‘milk+LE+ship’
	<i>øvund</i> +LE+ <i>kona</i> ‘envy+LE+woman’
	<i>jarð</i> +LE+ <i>broðber</i> ‘earth+LE+wild thyme’
	<i>vild</i> +LE+ <i>bræv</i> ‘wish+LE+letter’
	<i>piv</i> +LE+ <i>djór</i> ‘piv+LE+animal’





Because all stimuli were novel compounds, they were introduced descriptively to the participants. The compound *urt+LE+djús* was introduced as *Djús, sum er gjørt úr urt, tað er: ...* ‘Juice that is made from plants is: ...’. Subsequently, the participants had to evaluate different forms of the compounds with *urt* ‘plant’ as first part. The proposed compounds contained different compounding stem forms of *urt*:

Table 10. The forms of the compounding stems in the acceptability test

Compounding stem form of <i>urt</i>	Linking element
<i>urt+s+djús</i>	non-paradigmatic +s+
<i>urt+ar+djús</i>	paradigmatic +ar+ (homophonous with the genitive singular ending <i>urtar-</i>)
<i>urt+u+djús</i>	+u+ (homophonous with the singular ending of weak feminines)
<i>urt+i+djús</i>	+i+ (linking element used with verbal first parts)
<i>urt+a+djús</i>	paradigmatic +a+ (homophonous with the genitive plural)

The different forms of the novel compounds were set up vertically in a figure and presented in randomized order of compounds and their forms. The informants were asked to judge the acceptability of them by choosing between four different degrees of evaluation: from *ljóðar andskræmiligt* ‘sounds terrible’, *ljóðar ikki so illa* ‘sounds reasonable’, *ljóðar væl* ‘sounds good’ to *ljóðar ógviliga væl* ‘sounds very good’ (see example in 2). The test was conducted in Faroese.

Table 11. The acceptability test for the novel compound

			
<i>Ljóðar andskræmiligt</i> ‘sounds terrible’	<i>Ljóðar ikki so illa</i> ‘sounds reasonable’	<i>Ljóðar væl</i> ‘sounds good’	<i>Ljóðar ógviliga væl</i> ‘sounds very good’
<i>urtsdjús</i>			
<i>urtardjús</i>			
<i>urtudjús</i>			
<i>urtidjús</i>			
<i>urtadjús</i>			

Additionally, one stimulus with a complex first part was tested. It was introduced as *Ein vatn, sum er millum tvær gjáir* ‘A lake between two canyons’. This stimulus

was added to test the acceptance of different linking elements after complex first parts in compounds denoting places and, hence, resembling place names. Following Simonsen (1993), we expected a higher acceptance for *miðgjógvsvatn* than for *miðgjáarvatn*.

We first conducted a pilot test and asked nine first-year University students and L1-speakers of Faroese to evaluate the proposed variants of compounds. Here, we present the analysis of the results of the second test (based on the pilot test) conducted at the upper secondary school in Kambsdalur (*Studenta og HF skúlin á Kambsdali*, 14 participants) and a business college (*Handilsskúlin í Tórshavn*, 41 participants). The results of both tests, the first preliminary (9 participants) as well as the second extended test (55 participants), show that the quality of the next consonant significantly influences the form of the linking element: The choice of *+ar+* or *+a+*, which cannot be explained semantically (because of the mass noun in the first part), depends on whether the following consonant is a sonorant (*r* tends to be maintained, no variation) or an obstruent (*r* tends to be deleted, variation).

The box plot in Figure 2 shows the dispersion of the different degrees of acceptance, the participants have assigned to a particular variant of a compound. The acceptance values correspond to the evaluation categories outlined in Table 11. The box plot shows that linking *+ar+* and *+a+* are not equally accepted in front of sonorants and obstruents. When the second part starts with a sonorant, the linking *+ar+* is strongly preferred. This means that forms like *urt+ar+nøgd* or *tjóð+ar+ráð* are predominantly evaluated as “very good” or “good”, while forms without *-r* like *urt+a+nøgd* or *tjóð+a+ráð* are rejected in the majority of cases. With regard to the obstruents, the test persons do not show any preferences. The evaluation of both linking forms *+ar+* and *+a+* exhibits a wide range of different acceptance values. Hence, forms like *mjólk+a+skip* or *øvund+a+kona* (with non-paradigmatic *+a+*) are not considered worse than *mjólk+ar+skip* or *øvund+ar+kona*. To sum up, the “new” non-paradigmatic linking *+a+* is clearly not accepted in front of sonorants, while in front of obstruents it is just as acceptable as the “old” *+ar+*. The results confirm our hypothesis: A strong graphemic variation is observable when the initial grapheme of the second part corresponds to a strong consonant (obstruent). The graphemic variation can be interpreted as a result of the phonetic/phonological variation, which is primary, and which manifests itself in speakers’ insecurity when it comes to the choice of linking elements.

Table 12 contains the results of the configurational frequency analysis (CFA) for *+ar+* and *+a+*. This analysis tests all possible patterns (configurations) in order to show which of them occur significantly more frequently (so called *types*, Obs-exp = “>”) or significantly less frequently (so called *antitypes*,

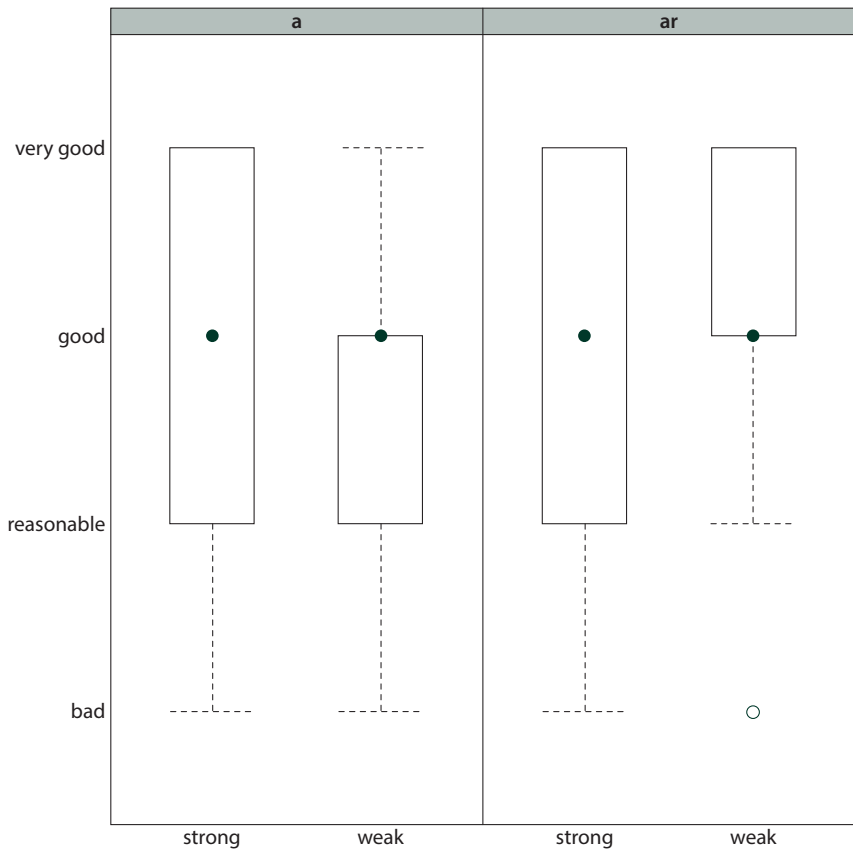


Figure 2. The distribution of +ar+ and +a+ in front of weak (sonorants) and strong consonants (obstruents)

Obs-exp = “<”) than expected. A pattern is the combination of a specific form of linking element together with a specific context (the quality of the following consonant) + a specific value assigned to it by one test person. Thus, when the observed frequency of a given evaluation (e.g. “bad” as in the first line in Table 12) for a specific combination of the form of a linking element (e.g. +a+) with a specific quality of the following consonant (e.g. an obstruent, which is a strong consonant) is statistically lower (“Freq” = 66) than expected (“Exp” = 1.430.162, with the chi-square value “Cont.chisq” = 414.743, and the Holm adjusted probability value “P.adj.Holm” = 2,64E + 03), then one might conclude that these variables (“bad”, +a+, obstruent) do not occur together: Participants do not tend to evaluate the combination of +a+ followed by an obstruent as bad (“Obs-exp” = “<”); this antitype is highly significant (Decision “Dec” = “***” with $p < 0.001$). In contrast, the pattern in the second line of

Table 12 (“very good”, *+a+*, an obstruent, i.e. a strong consonant) occurs significantly more often than expected (“*Freq*” = 113, “*Exp*” = 548.296). Our CFA reveals two *types* for the linking *+a+* followed by a strong consonant: 1) (highly significant) *+a+* followed by a strong consonant and evaluated as very good and 2) (significant) *+a+* followed by a strong consonant and evaluated as good. At the same time, the CFA reveals an antitype for the same combination: 3) (highly significant) *+a+* followed by a strong consonant and evaluated as bad. A similar tendency can be stated for the combination of *+ar+* with a following strong consonant (see lines 4–5 in Table 12). The influence of context is much stronger when the combination with the following sonorant is considered. Here, the combination with *+ar+* is strongly preferred (see lines 6–9 in Table 12): a highly significant type (*+ar+*, sonorant, “very good”), a significant type (*+ar+*, sonorant, “good”), two highly significant antitypes (*+ar+*, sonorant, “bad”) and (*+ar+*, sonorant, reasonable). Although the combination of *+a+* followed by a weak consonant (see line 10 in Table 12) is evaluated as good to a significant extent, it is not judged to be very good. Hence, the linking *+a+* is strongly preferred only in front of strong consonants.

Table 12. Configurational frequency analysis for *+ar+* and *+a+*

Acceptance	Consonant. strength	Linking element	Freq	Exp	Cont. chisq	Obs- exp	Padj.Holm	Dec	Q
bad	strong	<i>a</i>	66	1.430.162	414.743	<	2,64E + 03	***	0.029
very good	strong	<i>a</i>	113	548.296	617.148	>	3,89E + 04	***	0.021
good	strong	<i>a</i>	111	752.219	170.173	>	0.00815783199946009	**	0.013
bad	strong	<i>ar</i>	64	1.430.162	436.563	<	5,12E + 02	***	0.03
very good	strong	<i>ar</i>	111	548.296	57.544	>	1,73E + 05	***	0.021
very good	weak	<i>ar</i>	69	212.772	1.070.378	>	2,37E + 00	***	0.017
bad	weak	<i>ar</i>	14	554.988	310.304	<	3,87E + 05	***	0.015
good	weak	<i>ar</i>	59	291.906	304.413	>	0.000111665732223073	***	0.011
reasonable	weak	<i>ar</i>	10	308.676	141.072	<	0.00177487450623559	**	0.008
good	weak	<i>a</i>	56	291.906	246.224	>	0.000928938050706407	***	0.01

In Figure 3, the acceptability values of all linking elements are presented. Here, the linking *+ar+* and *+a+* are clearly the best accepted ones, followed by *+s+*, which, however, is judged significantly worse. However, the values for *+ar+* and *+a+* still oscillate between “very good” and “reasonable”, i.e. their status is not stable. Other linking elements *+i+* and *+is+* (only in *jørðisbroðber*) are clearly not acceptable.

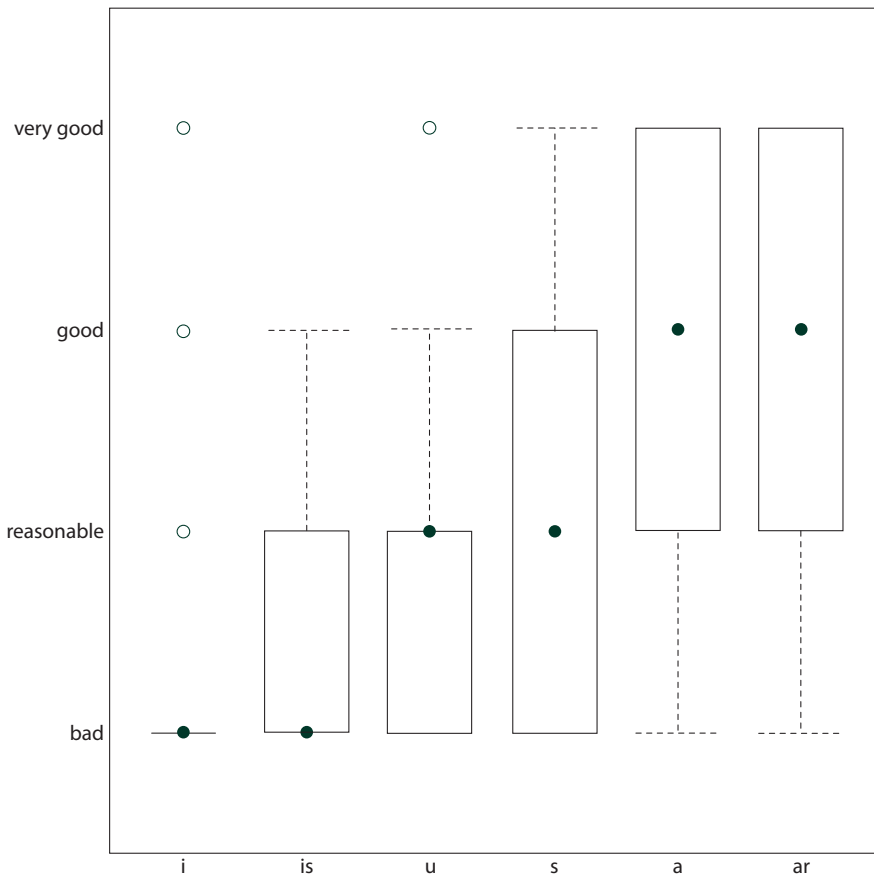


Figure 3. The acceptability values of all linking elements after a (strong) feminine first part

In Figure 4, the evaluation of different compounding stem forms of the complex first part *Miðgjógv* are presented. Interestingly, the form evaluated as best is *Miðgjáar-*, which is homophonous with the genitive singular. Both *Miðgjógv+ar+* and *Miðgjógv+s+* are equally rejected. Their evaluation oscillates between “sounds bad” and “sounds not so bad”. The form *Miðgjós-* is evaluated as reasonable. This is the form that should be the expected one in morphologically complex compounds. The high preference for *Miðgjáar-* as the best evaluated form, can be explained by the fact that the simplex noun *Gjógv* – a name of a village – is frequently used in the old genitive form after the directional preposition *tíl* ‘to’ in *tíl Gjáar*. This use of this form is still often heard in spoken Faroese. The form *tíl Gjógvar* (cf. *Miðgjógv+ar+* above) does not exist, but we have found examples with the accusative *tíl Gjógv*.

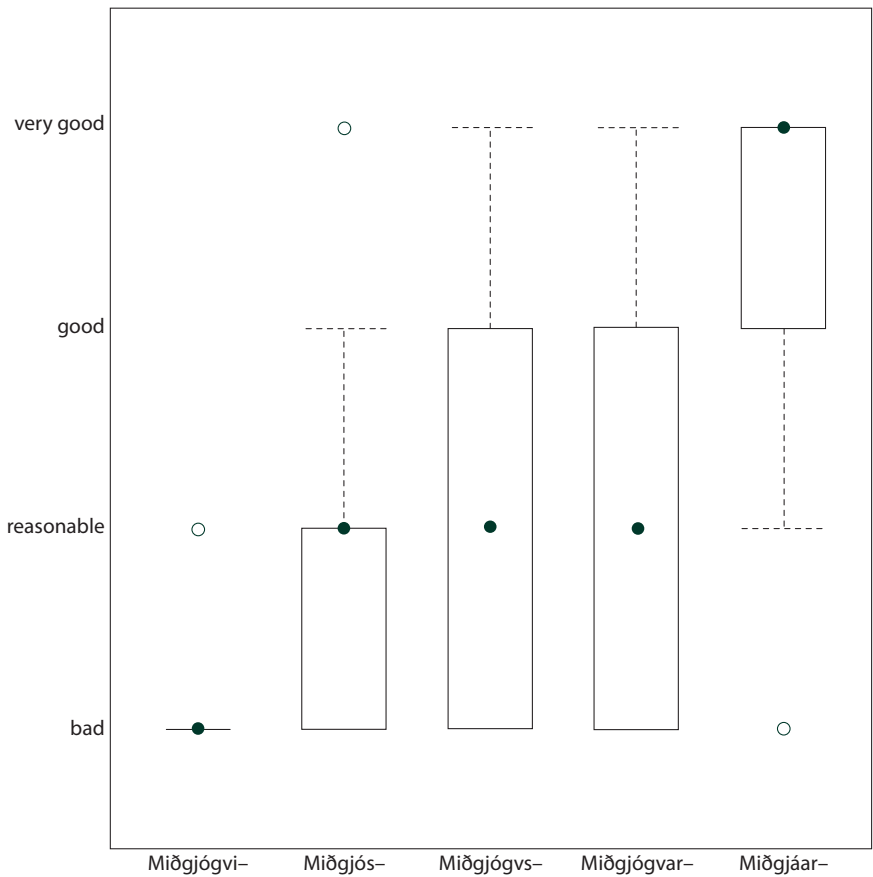


Figure 4. The acceptability values of all linking elements after a complex first part *Miðgjógvi*

4. Conclusion

Contemporary Faroese shows a complex system of linking elements dissociated from their inflectional source, the genitive markers. The formal wealth of linking elements stands in stark contrast to the fact that the genitive case is rarely used today. In this article, we have first addressed the decline of the genitive. Apart from lexicalized expressions, the use of genitive forms in Contemporary Faroese is restricted to directional phrases with the preposition *tíl* and an undetermined (indefinite) noun. Attributive genitives are also restricted to lexicalized expressions. Instead of the synthetic genitive, a wide range of analytic constructions express the “genitive relations” like possession and family relation.

The development of linking elements in Faroese is hence not only based on the formal and functional dissociation from the inflectional form, but also

supported by the loss of the original source. We then assume that the loss of the synthetic genitive is responsible for the specific dissociation step in Faroese. This language shows not only the non-paradigmatic use of linking elements, e.g. +s+, which can be observed in many Germanic languages. The missing link to the inflectional endings as the original source of linking elements is possibly the reason why Faroese linking elements develop formal variants depending on the immediate context. Hence, one and the same first part tends to combine with different linkers according to the following consonant, e.g. *mjólk*+*a*+*skip* vs. *mjólk*+*ar*+*maður*. Our acceptability test shows that the linking +*ar*+ develops a new non-paradigmatic variant +*a*+ which is strongly preferred only before strong consonants. Furthermore, our test with the complex first part confirms that the genitive form used in directional phrases still influences the choice of linking elements: The stimulus with a complex first part (denoting a lake within a canyon) does not show any strong preference of the non-paradigmatic +*s*+, but of *Miðgjáar*-, a compounding stem form homophonous with the genitive form used in directional phrases like *til Gjáar*.

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‘Genitives’ in nominal configurations

The Genitive Rule and its background

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In the German Language, there are two types of rules that determine whether a DP/NP may bear genitive case or not. The type I rules handle the case assignment as in other languages with morphological case, including a visibility condition for the genitive case. The type II rules refer to the DP/NP-internal feature distribution. The interaction of these rules can be formulated as a corollary, the Genitive Rule. Since the type II rules are merely descriptive generalizations, the question arises to what extent the Genitive Rule really covers the diverse constructions with genitive case. On the whole, the Genitive Rule seems to predict the distribution of the genitive constructions and their competitors with other cases correctly. Nonetheless, two deviations are to be expected (and can be observed): (i) A construction is grammatical in spite of violating the Genitive Rule; (ii) a construction is ungrammatical in spite of complying with the Genitive Rule. In both circumstances a second question arises: Which factors trigger the unexpected behavior?

1. Genitive and visibility

The main function of case is to clarify syntactic relations. As for the genitive: This case often appears in more complex structures than the other cases; therefore a specific rule evolved that guarantees the visibility of the genitive case (Plank 1980; Schachtel 1989; Gallmann 1990):

- (1) Visibility Condition for genitive case:
A genitive phrase must be overtly marked.

This is not the only visibility condition for Case in German. For example, neuter forms of pronouns cannot be used alone as indirect objects unless they are visibly marked for dative case; see (2a). In (2c), the object phrase contains a word form with the explicit case suffix *-em*; in (2b/d) the dative phrases are governed by the preposition *mit* and are not indirect objects:

- (2) a. *Dieser Vorfall gleicht* *_[dative] *nichts*].
b. *Dieser Vorfall ist* _{[pp mit} _[dative] *nichts*] *vergleichbar*.

- c. *Dieser Vorfall gleicht* [_{dative} *nichts anderem*].
- d. *Dieser Vorfall ist* [_{pp} *mit* [_{dative} *nichts anderem*]] *vergleichbar*.
'This incident equals nothing else.'

In German, there are only two markers that may fulfill the Visibility Condition for genitive case (cf. (1)) sufficiently:

- (3) a. the ending *-es/s*, applicable to (i) masculine and neuter determiners/pronouns, (ii) masculine and neuter common nouns, (iii) article-less proper names of all genders (*-s* only)
- b. the ending *-er*, applicable to adjectives and determiners/pronouns (feminine and plural)
- c. but not the "weak" ending *-en*, applicable to nouns, adjectives and determiners/pronouns

Combining the general visibility rule (cf. (1)) and the small inventory of available case markers (cf. (3)), we can formulate a concretized version of the Visibility Condition:

- (4) Visibility Condition (second version):
A genitive phrase must contain at least one item that bears the genitive markers *-es/-s* or *-er*.

If the Visibility Condition cannot be met, a substitutive construction must be used. Such constructions can optionally be used in other ways (partially under some stylistic restrictions). In the following example, a PP with the preposition *von* serves as a substitute. In (5a/b), the substitution is compulsive, in (5c/d) optional:

- (5) a. **innerhalb* [*Städte*].
- b. *innerhalb* [*von Städten*].
'within towns'
- c. *innerhalb* [*größerer Städte*].
- d. *innerhalb* [*von größeren Städten*].
'within bigger towns'

However, the Visibility Condition (cf. (4)) does not account for all data. For example, the Condition wrongly predicts that (6a) is fully grammatical, while the data in (7a) show that this is not driven by any lexical restriction:

- (6) a. ???*Der Konsum* [*Wassers*] *nimmt ständig zu*.
- b. * *Der Konsum* [*Wasser*] *nimmt ständig zu*.
- c. *Der Konsum* [*von Wasser*] *nimmt ständig zu*.
'The consumption of water increases continuously.'
- (7) a. *Der Konsum* [*frischen Wassers*] *nimmt ständig zu*.
- b. *Der Konsum* [*von frischem Wasser*] *nimmt ständig zu*.
'The consumption of fresh water increases continuously.'

The ungrammaticality of (6a) can be explained by an independent set of rules – the rules for the DP/NP-internal feature distribution. These rules are discussed in the following section. As examples show, it is the interplay of the visibility rule (cf. (4)) and the feature distribution rules that decides whether a DP/NP can bear the genitive case or not.

2. DP/NP-internal feature distribution in German

2.1 Obscure case forms

At first sight, case marking in German may seem to be rather obscure. The paradigms of nouns, adjectives and determiners/pronouns show much syncretism, the inventory of case markers is remarkably small, and some case endings appear in diverse paradigms with different feature values.

Table 1. Case syncretism in some typical paradigms

		Nominative	Accusative	Dative	Genitive
personal pronoun	1SG	<i>ich</i>	<i>mich</i>	<i>mir</i>	<i>meiner</i>
	1PL	<i>wir</i>	<i>uns</i>		<i>unser</i>
definite article	masculine	<i>der</i>	<i>den</i>	<i>dem</i>	<i>des</i>
	neuter	<i>das</i>		<i>dem</i>	<i>des</i>
	feminine	<i>die</i>		<i>der</i>	
	plural	<i>die</i>		<i>den</i>	<i>der</i>
interrogative pronoun	masculine	<i>wer</i>	<i>wen</i>	<i>wem</i>	<i>wessen</i>
	neuter	<i>was</i>			<i>wessen</i>
noun	masculine (strong)	<i>Turm</i>			<i>Turm[e]s</i>
	masculine (weak)	<i>Prinz</i>	<i>Prinzen</i>		
	masculine (mixed)	<i>Name</i>	<i>Namen</i>		<i>Namens</i>
	neuter (mixed)	<i>Herz</i>		<i>Herzen</i>	<i>Herzens</i>
	feminine	<i>Prinzessin</i>			

The intransparency of the single case forms is at least partially compensated by combinatorial effects, caused by agreement within the DP/NP:

(8) DP/NP-internal agreement:

The determiner, the adjectives and the noun within a DP/NP share case, number und gender features.

If two or more items of the classes mentioned above appear in a DP/NP, they disambiguate each other. Example: With respect to case, the items in (9) are highly ambiguous:

- (9) a. *Apfel* ‘apple’
 [Nominative singular masculine]
 [Accusative singular masculine]
 [Dative singular masculine]
 b. *Birne* ‘pear’
 [Nominative singular feminine]
 [Accusative singular feminine]
 [Dative singular feminine]
 [Genitive singular feminine]
 c. *der* ‘the’
 [Nominative singular masculine]
 [Dative singular feminine]
 [Genitive singular feminine]
 [Genitive plural]

However, whenever two of these items are combined in a DP/NP, the comparison of the respective feature bundles reduces the ambiguity significantly. The number and gender features of the noun are the key to this process:

- | | | |
|---------|--|--|
| (10) a. | <i>der</i>
[nominative singular masculine]
[dative singular feminine]
[genitive singular feminine]
[genitive plural] | <i>Apfel</i>
[nominative singular masculine]
[accusative singular masculine]
[dative singular masculine] |
| b. | <i>der</i>
[nominative singular masculine]
[dative singular feminine]
[genitive singular feminine]
[genitive plural] | <i>Birne</i>
[nominative singular feminine]
[accusative singular feminine]
[dative singular feminine]
[genitive singular feminine] |

In (10a), only one out of four possible feature bundles of the determiner is compatible with the three possible feature bundles of the noun. And in (10b), the ambiguity is at least reduced.

2.2 Main and secondary feature bearers

Apart from the case, number and gender features, the inflection of the DP/NP-internal items is influenced by an additional factor, namely the distinction of main (or primary) and secondary feature bearers. The most familiar phenomenon controlled by this factor is the opposition between the strong and the weak declension of the adjective. However, as will be shown, the distinction works also with nouns.

- c. [Mein stark-er schwarz-er Kaffee] stärkt mich.
'[My strong black coffee] boosts me.'
- d. [Ein stark-er schwarz-er Kaffee] stärkt mich.
'[A strong black coffee] boosts me.'
- e. [Stark-er schwarz-er Kaffee] stärkt mich.
'[Strong black coffee] boosts me.'

The same distribution shows up with nominalized adjectives:

- (15) a. Anna trug [d-as klein-e schwarz-e Kleid].
- b. Anna trug [d-as klein-e Schwarz-e].
- c. Anna trug [ihr klein-es schwarz-es Kleid].
- d. Anna trug [ihr klein-es Schwarz-es].
'Anna wore [the/her little black dress].'

For details such as the inflection of the determiners of the type *ein*, *kein*, *mein* see Duden-Grammar (2009: §§ 1521–1524) and Gallmann (2017).

3. The interaction of visibility and feature distribution

The distribution rules in (11) state that nouns are either main feature bearers or secondary feature bearers. They are main feature bearers...

- if the DP/NP lacks any determiner or adjective:

- (16) a. [Anna] liest [Bücher].
'[Anna] reads [books].'
- b. [Öl] ist leichter als [Wasser].
'[Oil] is lighter than [water].'

- or if the preceding items lack inflection endings and therefore cannot take the role of a feature bearer, see (17c):

- (17) a. Anna trägt heute [das violette Kleid].
'Anna wears [the purple dress] today.'
- b. Anna trägt heute [ein violettes Kleid].
'Anna wears [a purple dress] today.'
- c. Anna trägt heute [ein lila Kleid].
'Anna wears [a pink dress] today.'

If a noun is the main feature bearer of a DP/NP, it underlies the constraint (13iii), repeated here as (18):

- (18) Nouns tend (!) to remain uninflected for case if they are main feature bearers, i.e., they receive case endings only if they are secondary feature bearers.

The first part of constraint (18) is handled in the usual German grammars under labels such as “omission of case inflection” (*“Unterlassung der Kasusflexion”*). It is a rather recent phenomenon of ongoing language change, i.e., the constraint has not yet established itself completely. The relativizing formulation in (18), emphasized with an exclamation mark, is due to this fact. Former periods of the German language did not have an equivalent of constraint (18); nouns were then inflected irrespective of whether they were main or secondary feature bearers. The new constraint has an anti-iconic flavor (the endings lack just when the noun is the main feature bearer); the author of this article has no idea why this constraint has emerged.

On closer inspection of the constraint, the following observations can be made, sorted by the few nominal endings of the German noun:

- Ending *-e* (dative singular of strong masculine and neuter nouns): The constraint captures the observable data rather exactly; there are only some lexicalized residues.
- Ending *-en* (weak masculine nouns; all cases but nominative): The establishment of (18) has progressed; however, there is still some variation.
- Ending *-n* (dative plural): The language change has just begun; most normative grammars judge the omission of this ending as non-standard.
- Ending *-es/-s* (genitive singular of strong masculine and neuter nouns): as with the dative ending *-e*, but some more residues.

In sum, constraint (18) can at this point be confined to singular forms.

The ending *-e* (dative)

In the following examples, the DP/NP contains an apposition. In German, extensions of this kind must agree in case with the DP/NP in which they are embedded. The unambiguous dative forms (and the ungrammaticality of nominative forms) demonstrate that the DP/NP as a whole bears dative case. In spite of this, the core noun of the DP/NP, *Holz*, cannot receive the dative ending in (19c). (Usually, this ending is a stylistically marked option, but in the respective context, the ending is excluded.) This behavior is predicted by constraint (18). Where necessary, the following annotations have been used in the examples:

- * ungrammatical
- grammatical, but non-preferred by prescriptive grammarians
- % grammatical, but stylistically marked
- § non-standard use (observable in spoken or written substandard)

- (19) a. **Er arbeitet mit [Holz, dieser universelle Werkstoff].*
 b. *Er arbeitet mit [Holz, diesem universellen Werkstoff].*
 c. **Er arbeitet mit [Holze, diesem universellen Werkstoff].*
 'He works with [wood, this universal material].'

Example (20) contrasts with (19). In (20), the role of main feature bearer is taken by the prenominal adjective. As predicted, the dative ending is an option here, even though stylistically marked:

- (20) a. **Er arbeitet mit [einheimischem Holz, dieser universelle Werkstoff].*
 b. *Er arbeitet mit [einheimischem Holz, diesem universellen Werkstoff].*
 c. %*Er arbeitet mit [einheimischem Holze, diesem universellen Werkstoff].*
 'He works with [locally grown wood, this universal material].'

Fossilized expressions as residues of former periods of the German language:

- (21) a. *Mir stehen die Haare [zu [Berge]].*
 'His hair bristles.'
 b. *Wir sollten uns das [bei [Tage]] ansehen.*
 'We should take a closer look.'
 (Literally: We should view this in daytime.)

The ending *-en* of the weak masculine nouns

The language change continues and has not yet fully stabilized this area of case marking. The omission of the case ending is acknowledged by most the newer normative grammars of German. The constructions in (22) to (24) comply with the constraint (18), but contradictory examples with case endings can easily be found; see also the Duden-Grammar (2009: § 1531).

- (22) a. *Die Angelegenheit gestaltete sich im Vorfeld bereits deshalb sehr spannend, weil wir die Reise plötzlich ohne [eigenen Dirigenten] antreten mussten.*
 'The matter already was of great delicacy in the run-up, because we suddenly had to start the tour without our own conductor.'
 <internet quote>
 b. *Zur Philosophie des Ensembles gehört, dass es auch bei größeren Besetzungen in der Regel ohne [Dirigent] arbeitet.*
 'It is the ensemble's philosophy to usually work without a conductor even when we have a big cast.'
 <internet quote>
 (23) a. *Ich war nicht live dabei, aber mit [dem Herzen] und [dem Verstand].*
 'I wasn't there in person, but with both my heart and soul.'
 <internet quote>

- b. *Alle sind mit [Herz] und [Verstand] dabei.*
 ‘The whole staff is working with all their heart and soul.’
 <internet quote>
- (24) a. *Anders als in Europa steht keine »Apparatemedizin« zwischen [dem Arzt] und [seinem Patienten].*
 ‘Unlike in Europe, there’s no hi-tech medicine standing between the doctor and the patient.’
 <internet quote>
- b. *Regelmäßiger Informationsaustausch zwischen [Arzt] und [Patient] kann Rheumabeschwerden günstig beeinflussen.*
 ‘Frequent exchange of information between doctor and patient can help to influence the symptoms of rheumatism in a positive way.’
 <internet quote>

The ending -n of dative plural

As stated above, the omission of this ending is judged as non-standard in most normative grammars; the lexicalized phrase (26) is a remarkable (and somewhat unexpected) exception:

- (25) a. *§Der Leugnungsmechanismus hilft [Kinder] sich zu distanzieren und somit mit der Situation fertig zu werden*
 ‘The mechanism of denial helps children to view things from a distance and therefore to deal with the situation.’ <internet quote>
- b. *§Auch Afrikas [Wälder] droht der Kahlschlag.*
 ‘The woods of Africa are also being threatend with deforestation.’
 <internet quote>
- c. *§Wir haben einen Milchreis mit [Früchte] und Zimt gekocht.*
 ‘We cooked porridge with fruit and cinnamon.’ <internet quote>
- (26) *aus [[aller Herren] Länder]*
 ‘from everywhere’ (literally: from the countries of all rulers)

The ending -es/-s of the strong masculine and neuter nouns

The most interesting effect of constraint (18) can be observed in genitive phrases. Here, the constraint interacts with the Visibility Condition (cf. (4)). This can be shown with the examples of block (6) and (7), repeated here as (27) and (28):

- (27) a. *???Der Konsum [Wassers] nimmt ständig zu.*
 b. **Der Konsum [Wasser] nimmt ständig zu.*
 c. *Der Konsum [von Wasser] nimmt ständig zu.*
 ‘The consumption of water increases continuously.’

- (28) a. *Der Konsum [frischen Wassers] nimmt ständig zu.*
 b. *Der Konsum [von frischem Wasser] nimmt ständig zu.*
 ‘The consumption of fresh water increases continuously.’

In Example (27a), the noun bears an unambiguous case ending, as required by the Visibility Constraint (cf. (4)). However, this noun is the main feature bearer of the DP/NP and must therefore remain uninflected. In Example (27b), constraint (18) is fulfilled – but the Visibility Condition is violated. In many comparable situations with competing imperfect constructions, one of them is chosen nonetheless – but not in the genitive constructions. Instead, a substitutive construction with the preposition *von* must be used, see (27c).

In (28), the substitutive construction is only an option, in accordance with the fact that the noun is only a secondary feature bearer.

Data as in (27) or (28) suggest a compact formulation, derived from the Visibility Condition (cf. (4)) and the “Omission Rule” (13iii)/(18). In other words, the following rule is an epiphenomenon (Duden-Grammar 2009):

(29) **Genitive Rule**

A DP/NP can bear genitive case only if (i) and (ii):

- (i) The DP/NP contains at least one non-nominal feature bearer.
 (ii) The DP/NP contains at least one item with the ending *-es/-s* or *-er*.

Note: The Genitive Rule (29) does not state that the items that fulfill (i) and (ii) must be identical. See (30):

- (30) a. *Das ist die Aufgabe [jedes Schülers].*
 b. *Das ist die Aufgabe [jeden Schülers].*
 c. *Das ist die Aufgabe [jedes Studenten].*
 d. **Das ist die Aufgabe [jeden Studenten].*
 ‘That is the task [of every student].’

3.1 Compulsory and optional substitutive constructions

As mentioned, almost all genitive constructions compete with other, substitutive constructions (for details see below). The substitutive constructions *must* be chosen if the Genitive Rule would otherwise be violated. In addition, they *may* be chosen even if the Genitive Rule predicts that the internal structure of the respective DP/NP would allow the use of the genitive case. We see an expansion of use here that is very typical: If two constructions compete – one of them with severe restrictions in use, the other with no such restriction – in the long term the one with no restrictions will outdo the other.

The most stable configurations with genitive case are those with high-frequency determiners, see the list in (31) (M/N = masculine/neuter, F = feminine):

(31) High-frequency determiners (genitive forms):

- a. definite article:
des, der
 the.M/N the.F
- b. demonstrative determiners:
dieses, dieser; jenes, jener
 this.M/N this.F that.M/N that.F
- c. indefinite article
eines, einer
 one.M/N one.F
- d. negated indefinite determiner
keines, keiner
 no.M/N no.F
- e. possessive determiners
meines, meiner; deines, deiner, ...
 my.M/N my.F your.M/N your.F

The prescriptive grammars advise against the substitutive constructions with such determiners at least in written Standard German (see, for example, Duden-Zweifelsfälle 2011: 372); however, substitutive constructions are not ungrammatical (and in spoken Standard German, they are quite common). Substitutive constructions with adjectives, but without a determiner, are acceptable in both written and spoken Standard German:

- (32) a. *der Kauf des neuen Materials*
 °*der Kauf vom neuen Material*
 ‘the purchase of the new material’
- b. *der Kauf dieses neuen Materials*
 °*der Kauf von diesem neuen Material*
 ‘the purchase of this new material’
- c. *der Kauf alles neuen Materials*
 der Kauf von allem neuen Material
 ‘the purchase of all new material’
- c’. *der Kauf allen neuen Materials*
 der Kauf von allem neuen Material
 ‘the purchase of all new material’
- d. *der Kauf neuen Materials*
 der Kauf von neuem Material
 ‘the purchase of new material’
- e. **der Kauf Materials*
 der Kauf von Material
 ‘the purchase of material’

The substitutive constructions vary in accordance to the respective syntactic context, i.e., there is no universal substitutive construction.

3.2 Overview of the following discussion

The next three sections address the question to what extent the Genitive Rule (cf. (29)) corresponds with the data:

(29) Genitive Rule

A DP/NP can bear genitive case only if (i) and (ii):

- (i) The DP/NP contains at least one non-nominal feature bearer.
- (ii) The DP/NP contains at least one item with the ending *-es/-s* or *-er*.

Indeed, mismatches between the Genitive Rule and the use of the genitive case can be observed in some specific constructions. The following discussion is organized in three sections:

- The expected behavior: The Genitive Rule predicts the (un)grammaticality of the respective constructions.
- Unexpected behavior I: The Genitive Rule is observed, but the respective constructions are ungrammatical nonetheless.
- Unexpected behavior II: The Genitive Rule is violated, but the respective constructions are acceptable.

4. The expected behavior

In the Modern German standard language, the use of the genitive case may be declining, but we still find many constructions with this case. This said, we must concede that the use as postnominal attributes widely prevails. In (33), the common genitive constructions of written Standard German are listed. In the subsequent portion of this section, each type will be illustrated by at least one example.

(33) List of genitive constructions in modern written standard language

- A. possessive genitive, prenominal
- B. possessive genitive and related genitive constructions, postnominal
- C. partitive genitive
- D. explicative genitive
- E. qualitative genitive
- F. prepositional genitive
- G. adverbial genitive
- H. genitive object
- I. appositive genitive
- J. *als/wie* + genitive

- b. *§Ich möchte jetzt sofort wissen, [wem seine] Idee das heute war!*
 ‘I want to know now, whose idea this was.’
 (literally: whom his idea). <internet quote>

The possessive dative could also be found in the literary language of the 17th and 18th centuries, but since then, the construction fell in disfavor:

- (36) a. *Auf [der Fortuna ihrem] Schiff ist er zu segeln im Begriff.*
 ‘On [Fortuna’s] ship, he is going to sail.’
 (literally: on [the.DAT Fortuna her] ship)
Schiller ([1799] 1954: 354): *Wallensteins Lager*
- b. *Nachgehends stand es nicht lang an, dass [meinem Obristen sein] Schreiber mit Tod abging.*
 ‘After that, it didn’t take long for [my colonel’s] clerk to die.’
 (literally: [my.DAT colonel.DAT his] clerk)
Grimmelshausen (1669, Chapter 20): *Der abenteuerliche Simplicissimus*

B. Possessive genitives and related genitive constructions, postnominal

Possessive genitive phrases and related genitive phrases such as the Genitivus subjectivus or the Genitivus objectivus predominate largely over all other genitive constructions in Modern German (Scott 2014). Nevertheless, the substitutive construction with the preposition *von* ‘of’ appears not only to circumvent a violation of the Genitive Rule, but also in contexts where the genitive would be possible (however, see above (31) and (32)):

- (37) a. Genitive construction:
der Verbrauch [schwefelhaltigen Öls]
 ‘the consumption [of sulphurous oil]’
- b. Violation of the Genitive Rule:
 * *der Verbrauch [Öls]*
 ‘the consumption [of oil]’
- c. Compulsory substitution:
der Verbrauch [von Öl]
 ‘the consumption [of oil]’
- d. Expansion of substitutive construction:
der Verbrauch [von schwefelhaltigem Öl]
 ‘the consumption [of sulphurous oil]’

C. Postnominal Genitivus qualitatis

This construction is restricted to lexicalized collocations. Only syntagms that obey the Genitive Rule can be found (however, see below (93)):

- (38) a. *eine Fahrkarte [erster Klasse]*
 'a first-class ticket'
 b. *eine Publikation [neueren Datums]*
 'a publication of recent date'

Sometimes, PPs compete with the genitive construction nonetheless:

- (39) a. Genitive construction:
eine Person [meinen Alters]
 b. Substitutive construction (optional):
eine Person [in meinem Alter]
 'a person of my age'
- (40) a. Genitive construction:
Menschen [guten Willens] können die Welt verändern!
 'Men with good will can alter the world.' <internet quote>
 b. Substitutive construction (optional):
Menschen [mit gutem Willen] können eine Lösung finden.
 'Men with good will can find a solution.' <internet quote>

D. Postnominal Genitivus explicativus (explicative genitive)

There are several explicative constructions. In most contexts, they cannot be interchanged freely; however, see (41). The genitive syntagms always obey the Genitive Rule. In the competing construction (cf. (41b)), the noun *Schönheit* seems to be a juxtaposed nonphrasal head (Duden-Grammar 2009: 987, § 1562):

- (41) a. *Der Begriff [der "Schönheit"] bedarf theologisch einer Differenzierung.*
 'The concept of beauty needs a differentiation theologically.'
 <internet quote>
 b. *In diesem Sinne ist der Begriff "Schönheit" überindividuell bzw. intersubjektiv.*
 'In this sense, the concept of beauty is overindividual or intersubjective.'
 <internet quote>

E. Partitive genitive

The partitive genitive follows a mass, container, count or collective term. It competes with a juxtaposed phrasal construction, called *partitive apposition* by some grammars (e.g. Duden-Grammar 2009: 983, § 1556). The juxtaposed partitive DP/NP agrees in case with the matrix DP/NP or is underspecified with respect to case (= nominative form).

In most contexts, the genitive construction is considered stylistically marked so that the juxtaposed construction dominates; however, see (47).

- (42) a. Genitive construction:
 %mit einem Glas [kühlen Wassers]
 ‘with a glass [of cool water]’
- b. Violation of the Genitive Rule (ungrammatical):
 **mit einem Glas [Wassers]*
 ‘with a glass [of water]’
- c. Compulsory substitution:
 mit einem Glas [Wasser]
 ‘with a glass [of water]’
- d. Expansion of the substitutive construction (i):
 mit einem Glas [frischem Wasser]
 ‘with a glass [of fresh water]’
- d’. Expansion of the substitutive construction (ii):
 §mit einem Glas [frischen Wasser]
 ‘with a glass [of fresh water]’
- d’’. Expansion of the substitutive construction (iii):
 ?mit einem Glas [frisches Wasser]
 ‘with a glass [of fresh water]’

If the partitive phrase contains an inflected adjective, the construction with case agreement is highly preferred, see (42d). Case underspecification as in (42d’’) is considered non-standard by many grammarians, but there is some dissent; see Dückert & Kempcke (1984) for a positive evaluation of the latter construction. (42d’) is a non-standard variant of (42d) with weak inflection of the adjective. Contrary to some grammarians (e.g. Hentschel 1993; Eisenberg 2013: 262), it should not be analyzed as an accusative form – in combination with neuter nouns such as *Wasser*, the adjectival accusative ending could only be *-es* (same ending as in the nominative, see (42d’’)).

In contrast to complex partitive phrases, simple nouns as in (42c) regularly appear in the nominative form. This is the form to be expected if they are underspecified for case. Case underspecification could explain why the syntagma is allowed, even if the superordinate DP/NP stays in the genitive (see also Zimmer 2015):

- (43) *der Genuss eines Glases [Wasser]*
 ‘the consumption of a glass [of water]’

Many native speakers are very insecure in such configurations, particularly with simple nouns as partitive items. Contrary to the Genitive Rule, we also find nouns with a genitive marker (with or without genitive marking at the matrix noun):

- (44) a. *°der Genuss eines Glas [Wassers]*
 b. *§der Genuss eines Glases [Wassers]*
 ‘the consumption of a glass [of water]’

Most speakers tend to avoid such configurations (mostly by substitution of the matrix genitive construction):

- (45) *der Genuss von einem Glas [Wasser]*
 'the consumption of a glass [of water]'

Real examples from the internet:

- (46) a. *Viele Leute schwören auf die verdauungsfördernde Wirkung eines Glases [Wasser] auf nüchternen Magen.*
 'Many people support the idea that a glass of water has beneficial effects for digestion.' <internet quote>
- b. *?Ulkipigerweise haben die Kollegen keine Großfamilien, ..., werden bereits beim Anblick eines Glas [Wassers] seekrank und sind auch ...*
 'It's kind of funny that the colleagues do not have extended families, ..., get seasick even at the sight of a glass of water and are also ...'
 <internet quote>
- c. *§ Will man beispielsweise den Entropieinhalt eines Glases [Wassers] messen, führt man diesem Wasser eine infinitesimale Menge Wärme zu.*
 'If one wants to measure the entropy of a glass of water, one supplies this water with an infinitesimally small amount of energy.' <internet quote>

Collective nouns also allow partitive phrases with the prepositions *von* and *an*:

- (47) a. Genitive construction:
Wir bestellten eine Anzahl [leistungsfähiger Computer].
- b. Optional substitution (i), apposition:
Wir bestellten eine Anzahl [leistungsfähige Computer].
- c. Optional substitution (ii), PP with *von*:
Wir bestellten eine Anzahl [von leistungsfähigen Computern].
- d. Optional substitution (iii), PP with *an*:
Wir bestellten eine Anzahl [an leistungsfähigen Computern].
 'We ordered a number [of powerful computers].'
- (48) a. Violation of the Genitive Rule (ungrammatical):
 **Wir bestellten eine große Menge [Materials].*
- b. Substitution (i), partitive apposition:
Wir bestellten eine große Menge [Material].
- c. Substitution (ii), PP with *von*:
Wir bestellten eine große Menge [von Material].
- d. Substitution (iii), PP with *an*:
Wir bestellten eine große Menge [an Material].
 'We ordered a large amount [of material].'

Until the 19th century, constructions as in (48a) were fully grammatical; see (71c) below.

F. Preposition + genitive phrase

In written language, many prepositions govern the genitive case. If the Genitive Rule cannot be met, the government changes to one of two possibilities: (i) The preposition governs the dative, (ii) the preposition selects an embedded PP with the “auxiliary” preposition *von* (+ dative). Most prepositions allow only one of these constructions, see (49c/d) vs. (50c/e):

- (49) a. Genitive construction:
einschließlich [allen Verpackungsmaterials]
 ‘including [all packing material]’
 b. Violation of the Genitive Rule (ungrammatical):
 ???*einschließlich [Verpackungsmaterials]*
 ‘including [(the) packing material]’
 c. Substitution (i), dative:
einschließlich [Verpackungsmaterial]
 ‘including [(the) packing material]’
 d. Substitution (ii) *von* + dative:
 ???*einschließlich [von Verpackungsmaterial]*
 ‘including [(the) packing material]’
 e. Expansion of the substitutive construction:
§einschließlich [allem Verpackungsmaterial]
 ‘including [all packing material]’ <internet quote>
- (50) a. Genitive construction:
angesichts [größerer Hindernisse]
 ‘in the face of rather large problems’
 b. Violation of the Genitive Rule (ungrammatical):
 ???*angesichts [Hindernisse]*
 ‘in the face of problems’
 c. Substitution (i), dative:
 ???*angesichts [Hindernissen]*
 ‘in the face of problems’
 d. Substitution (ii), *von* + dative:
angesichts [von Hindernissen]
 ‘in the face of problems’
 e. Expansion of the substitutive construction:
angesichts [von größeren Hindernissen]
 ‘in the face of rather large problems’

There are a few prepositions that allow a violation of the Genitive Rule, but only with strong masculine and neuter nouns in the singular; see below, (65).

G. Genitive object

A few German verbs combine with objects in the genitive case. The Genitive Rule is obeyed rather strictly here. To circumvent this restriction, some verbs allow another case or a functional preposition to be assigned. However, there is a residual group of verbs without any established option for the substitution of ungrammatical genitive phrases. Such verbs gradually fall into disuse.

- (51) a. Genitive construction:
Er enthielt sich [jeglichen Widerstands].
 'He abstained [from any resistance].'
- b. Violation of the Genitive Rule (ungrammatical):
**Er enthielt sich [Widerstands].*
 'He abstained [from resistance].'
- c. Violation of the Genitive Rule (ungrammatical):
**Er enthielt sich [Widerstand].*
 'He abstained [from resistance].'
- d. Substitution (other verb):
Er verzichtete [auf Widerstand].
 'He abstained [from resistance].'
- e. Expansion of the substitutive construction:
Er verzichtete [auf jeglichen Widerstand].
 'He abstained [from any resistance].'

In Modern Standard German, only half a dozen verbs occur with a non-negligible frequency, e.g. *sich annehmen* ('to deal with') and *gedenken* ('to recall'). In non-standard varieties these verbs tend to govern the dative instead of the genitive:

- (52) a. Genitive construction:
Er nahm sich [vieler Probleme] an.
 'He dealt [with many problems].'
- b. Violation of the Genitive Rule (ungrammatical):
**Er nahm sich [allerlei Probleme] an.*
 'He dealt [with all sorts of problems].'
- c. Non-standard (dative):
§Er nahm sich [allerlei Problemen] an.
 'He dealt [with all sorts of problems].'
- d. Expansion of the non-standard use:
§Er nahm sich [vielen Problemen] an.
 'He dealt [with many problems].'

H. Adverbial genitive phrases

In Modern Standard German, there exists a limited number of lexicalized phrases in the genitive with the function of a temporal, modal or epistemic adverbial. They always follow the Genitive Rule. High frequency items of this kind are quite stable; low-frequency items tend to be substituted by prepositional phrases:

- (53) a. *Das stimmt [unseres Erachtens].*
'In our opinion, that's correct.'
- b. *Julia rannte [sehenden Auges] ins Unglück.*
'Julia ran into disaster with her eyes open.'
- c. *Ich erkundigte mich [höheren Orts].*
'I made an inquiry at a higher level in the hierarchy.'
- d. *Sie hatte [letzten Endes] Erfolg.*
'She finally succeeded.'
- (54) a. Genitive construction:
%*Sie trafen sich [des Abends].*
'They met in the evening.'
- b. Substitution:
Sie trafen sich [am Abend].
'They met in the evening.'

Simple word forms that end on -s are adverbs, prepositions or conjunctions synchronically; diachronically, they may descend from adverbial genitive phrases. We see here an instance of deflection: a former inflection morpheme has evolved to a semantically void marker for non-inflectable lexemes.

- (55) a. *Sie trafen sich [abends].*
'They met in the evening.'
- b. *Dieser Zug fährt [samstags] nicht.*
'This train don't run on Saturdays.'
- c. *Ich hatte das [anfangs] noch nicht gemerkt.*
'I didn't realize that in the beginning.'
- d. *Wir mussten [mangels] Unterstützung aufgeben.*
'We had to give up because of the lacking support.'
- e. *Die Jugendlichen saßen [rings] um den Brunnen.*
'The adolescents sat in a circle around the well.'
- f. *Ich gebe dir die Telefonnummer, [falls] du noch anrufen willst.*
'I'll give you the phone number, just in case you want to call.'

The orthographic rules of German traditionally demand lower case letters for these items. Apparently they have been regarded as non-substantives for a long time. The orthographic reform of 1996 did not change this spelling.

I. “Loose” apposition

In German grammars, the term *loose apposition* (“lockere Apposition”) refers to a non-restrictive supplement to a DP/NP which has the form of a DP/NP itself. Appositions of this kind are normally set off by commas in written language. In German, loose appositions are supposed to agree with the corresponding DP/NP in case, but there is a tendency to leave them underspecified with respect to case (= nominative form). Underspecification is particularly frequent if the superordinate DP/NP remains in the genitive, i.e., double genitives resulting from agreement are avoided (except in configurations with the definite or the indefinite article; see (31)/(32) above):

- (56) a. Genitive → genitive (agreement):
die Pläne Jakob Moschs, [eines Architekten der Stadtverwaltung]
 ‘the plans of Jakob Mosch, an architect employed at the city administration’
- b. Genitive → genitive (agreement, but violation of the Genitive Rule):
 **die Pläne Jakob Moschs, [Architekten der Stadtverwaltung]*
 ‘the plans of Jakob Mosch, architect employed at the city administration’
- c. Substitution: genitive → underspecification:
die Pläne Jakob Moschs, [Architekt der Stadtverwaltung]
 ‘the plans of Jakob Mosch, architect at the city administration’
- d. Expansion of the substitutive construction:
die Pläne Jakob Moschs, [leitender Architekt der Stadtverwaltung]
 ‘the plans of Jakob Mosch, leading architect at the city administration’
- d’. Expansion of the substitutive construction:
 §*die Pläne Jakob Moschs, [ein Architekt der Stadtverwaltung]*
 ‘the plans of Jakob Mosch, an architect employed at the city administration’

There is a second substitutive construction, considered non-standard: Here, the apposition appears in the dative (Leirbukt 1978, Gippert 1981):

- (57) a. Genitive → dative:
 §*die Pläne Jakob Moschs, [leitendem Architekten der Stadtverwaltung]*
 ‘the plans of Jakob Mosch, leading architect at the city administration’
- b. Genitive → dative, expansion of the use:
 §*die Pläne Jakob Moschs, [einem Architekten der Stadtverwaltung]*
 ‘the plans of Jakob Mosch, an architect at the city administration’

There are also appositive dative phrases that refer to DPs/NPs in the accusative.

J. *als/wie* + DP/NP

The particles *als* and *wie* appear in some constructions with modal or predicative semantics. The traditional rules demand that their DP/NP agree in case with the DP/NP they are referring to. But as in the preceding construction, there is

a tendency to underspecification with respect to case or to assignment of dative case; the latter use is qualified as non-standard:

- (58) a. Genitive → genitive (agreement):
Eine Textsammlung für Kirche und Diakonie zur Einführung des Diakonats als [eines geordneten Amtes der Kirche]
 ‘a text collection for the church and the diaconal institution to introduce the diaconry as a official office of the church’ <internet quote>
- b. Violation of the Genitive Rule (marginal):
 ???*Jouanna beschäftigt sich mit der Stilisierung des französischen Geblütsadels als [Hüters der Verfassung und Beschützers des Königtums in den Religionskriegen].*
 ‘Jouanna is studying the stylization of the french blood nobility as the constitution’s guardian and the kingship’s protector in the religious wars.’ <internet quote>
- c. Genitive → underspecification (nominative):
Es ist dies eine Anthologie von Vortragsmanuskripten, mit deren Drucklegung das langjährige Wirken des Verstorbenen als [Forscher und Lehrer] dokumentiert wird.
 ‘it is an anthology of lecture manuscripts whose publication documents the deceased’s long career as a researcher and teacher.’ <internet quote>
- d. Expansion of the substitutive construction:
Beim Trauergottesdienst wurde das Wirken des Verstorbenen als [einfühlsamer Seelsorger] besonders gewürdigt.
 ‘At the funeral service, the deceased’s work as a caring spiritual counselor was especially acknowledged.’ <internet quote>
- e. Genitive → dative:
§Statt einer Umsetzung der Geschichten bietet der Film eine Melange von typischen Ideen und Details der SF, einschließlich des Computers als [gutem Tyrannen].
 ‘Instead of a realization of the stories, the film presents a mere mixture of sci-fi’s typical ideas and details including the computer as a good tyrant.’ <internet quote>

5. Unexpected behavior I

In Modern Standard German, some constructions seem to be avoided in spite of their accordance with the Genitive Rule:

- pronouns with genitive marker *-es*
- recurring genitive phrases

5.1 Pronouns with genitive marker *-es*

Contrary to the formally identical determiners, pronouns with the marker *-es* are marginal. Pronouns with the other genitive marker of the German Language, i.e. *-er* (feminine or plural; see (3)), are grammatical:

- (59) a. ???*der Beitrag [jedes.M], der hier teilnimmt*
 'the contribution of everyone.M/every man who participates'
 b. ?*der Beitrag [jeder.F], die hier teilnimmt*
 'the contribution of everyone.F/every woman who participates'
 c. *der Beitrag [aller.PL], die hier teilnehmen*
 'the contribution of all.PL (people) who participate'
- (60) a. ???*der Schatz, [welches.M] sich die Räuber bemächtigt haben*
 'the treasure.M the raiders took possession of'
 b. *die Prinzessin, [welcher.F] sich die Räuber bemächtigt haben*
 'the princess.F the raiders took possession of'
 c. *die Schätze, [welcher.PL] sich die Räuber bemächtigt haben*
 'the treasures.PL the raiders took possession of'

But in elliptic constructions, the forms with *-es* can be used without limitations:

- (61) a. *Da die Expertenmeinungen in einigen Punkten divergierten, stellt das 'Positions-papier' nicht immer die Meinung jedes der Experten dar.*
 'Since the expert opinions diverged on some points, the 'position paper' does not (always) reflect the opinion of every expert.'
 <internet quote>
 b. *Mit dem Kauf eines der folgenden Produkte unterstützen Sie gleichzeitig Straßenkinderprojekte.*
 'By buying one of the following goods, you are also supporting projects taking care of street urchins.'
 <internet quote>

The background of the constraint for pronouns is not clear. Perhaps the homonymy of nominative/accusative neuter and genitive masculine/neuter is distracting.

5.2 Recurring genitive phrases

Native speakers often reject recurring genitive phrases. This can particularly be seen in left-adjoining syntagms; see for example Duden-Zweifelsfälle (2011: 376) with respect to attributive genitive phrases and Duden-Zweifelsfälle (2011: 749) with respect to genitive phrases after prepositions.

- (62) ?[*[genitive] genitive*]

However, this construction is not strictly incorrect, and examples of this kind can easily be found in corpora:

- (63) a. %*Norman lässt sich trotz [[Annas] angeblich fehlender Deutschkenntnisse] nicht von einer Konversation abhalten.*
 ‘Despite Anna’s allegedly lacking knowledge of German, Norman doesn’t refrain from a conversation with her.’ <internet quote>
- b. %*Dann gucken die Leute ... nicht mehr nur wegen [[Annas] blonder Haare].*
 ‘Then, people won’t look at her anymore just because of her blond hair.’ <internet quote>
- c. %*Als die Eltern den ersten Schreck und den Anblick [[Sarahs] abstehender Haare] verdaut haben, geht es am nächsten Tag gleich weiter.*
 ‘When the parents got over the first shock and the look of Sarah’s bristling hair, they carried on the next day.’ <internet quote>

The following examples also violate the Genitive Rule (however, see below, prestigious prepositions):

- (64) a. %*Doch prompt ging nun in der Union wegen [[Merkels] Rückzugs] das Gemaule gegen die CDU-Chefin los*
 ‘However, because of Merkel’s retreat, the grumbling against the CDU’s chief started immediately in the Union.’ <internet quote>
- b. %*Trotz [[Pauls] Verrats] ist ihm sein Schicksal nicht gleichgültig.*
 ‘Despite Paul’s treason, his fate does matter to him.’ <internet quote>

The interpretation of these data is unclear. Perhaps the genitive-genitive configurations are prone to garden path effects.

6. Unexpected behavior II

The opposite of the phenomena discussed above are configurations that are considered grammatical in spite of violating the Genitive Rule. This concerns the following constructions:

- partitive appositions; see (42) above
- prestigious prepositions
- proper names without definite article
- derivations of geographical names with the suffix *-er*

6.1 Prestigious prepositions

With prepositions that appear frequently in traditional literary texts, simple nouns (i.e. nouns without a preceding article or a preceding inflected adjective) can bear the genitive marker *-s/-es*. The Genitive Rule predicts that such constructions are ungrammatical, as it can be observed in the plural form. The most important of these exceptional prepositions is *wegen* ('because of'). The expected substitution with the dative case is considered non-standard or at least non-preferred by many grammars. Nonetheless, the dative construction can easily be found in non-literary texts:

- (65) a. Genitive construction:
wegen [eines Todesfalls]
- b. Violation of the Genitive Rule, but acceptable:
%wegen [Todesfalls]
- c. Substitution (dative):
\$wegen [Todesfall]
- d. Expansion of the substitutive construction:
\$wegen [einem Todesfall]
'because of (a) death'

In pluralic DPs/NPs without preceding article or adjective, the substitutive construction is compulsory:

- (66) a. Genitive construction:
wegen [starker Schneefälle]
- b. Violation of the Genitive Rule:
**/\$wegen [Schneefälle]*
- c. Substitution (dative):
wegen [Schneefällen]
- d. Expansion of the dative construction:
\$wegen [starken Schneefällen]
'because of (heavy) snowfalls'

Note: Example (66b) allows two readings: (i) as a DP/NP in the genitive, judged as ungrammatical according to the Genitive Rule; (ii) as a DP/NP in the dative with loss of the dative ending *-n*, judged as non-standard, see (25).

Real examples from the internet:

– Genitive construction:

- (67) a. *Die Praxis ist wegen [Todesfalls] zu verkaufen und wird gegenwärtig von der langjährigen Kollegin weitergeführt.*
'The practice is on sale due to a death and is led by a long-time colleague at the moment.'
<internet quote>

- b. *Mehrere Mittelmeerhäfen wurden wegen [Sturms] geschlossen.*
 ‘Several mediterranean ports were closed due to a storm.’

<internet quote>

– Dative construction:

- (68) a. *Älterer Fachwerk-Bauernhof, geeignet zur Tierhaltung oder für andere Zwecke, wegen [Todesfall] zu verkaufen.*
 ‘Old timber-framed farm house, suitable for animal farming or other applications, on sale due to a death.’ <internet quote>
- b. *Dieselben Medien fanden nun die Sperrung des Bahnnetzes wegen [Sturm] uneingeschränkt richtig und sympathisch.*
 ‘The same media now regarded the closing down of the rail network due to a storm just and reasonable.’ <internet quote>

Prepositions that are marginal in literary texts follow the Genitive Rule to a great extent:

- (69) a. *???abzüglich [Rabatts]*
 ‘minus discount’
- b. *???zwecks [Einkaufs]*
 ‘for the purpose of purchase’

Real examples of the dative construction from the internet:

- (70) a. *Die Kosten belaufen sich abzüglich [Rabatt] auf 450 Euro.*
 ‘The costs amount, minus discount, to 450 Euros.’ <internet quote>
- b. *Die Leisten werden mittels [Leim] entlang des Risses angeschraubt.*
 ‘By applying glue, the ledges are screwed alongside the crack.’ <internet quote>

Interpretation: The exceptional use of prepositions of the *wegen* type can be seen as a residue from previous periods of the German language. In Middle High German and even in Early New High German, simple nouns could fill a genitive phrase without restrictions:

- (71) a. *Die erde wird nicht wassers satt.*
 ‘The earth is not satisfied with water.’
 Luther (1534, *Sprüche* 30:16): *Die Bibel*
- b. *Der kaiser nahm goldes und silbers genug von dem von Mailand und zog mit seinem heere weg*
 ‘The emperor took enough gold and silver from the ruler of Milan and moved away with his army.’ <internet quote>

- c. ... und multiplicirt dieses mit der Menge Materials, welche 1 Cubikfuß Wasser um 10 erwärmen kann
 ‘... and multiply this by the amount of material which is able to warm up one cubic foot of water by 10.’
 Tredgold & Kühn (1826: 14): *Grundsätze der Dampfheizung*

As in the plural form, this pattern would have disappeared if there had not been the language purists that have artificially stopped the ongoing morphosyntactic change, i.e. the establishment of the Genitive Rule (Szczepaniak 2014). However, they were not fully successful. The old pattern is only used with a subset of prepositions (as mentioned: *wegen*, but also *während*, *trotz*). The use of the prepositional genitive evolved to a shibboleth, i.e. to a distinctive marker for education and language awareness. Since then, the pattern passed down from one generation to the next. Today, most prescriptive grammars demand or at least prefer the old pattern for written standard language. In most non-standard varieties of German, however, the newer pattern with substitutive dative prevailed, in accordance with the Genitive Rule.

6.2 Proper nouns

In written Standard German and in the colloquial language of the northern regions, a subset of proper names are used without articles, except when combined with an attribute (= secondary use of the article); see (72) vs. (73). The subset comprises personal names, company names and a significant number of geographic names, particularly city names.

- (72) a. [Anna] löste das Rätsel.
 ‘Anna solved the mystery.’
 b. Ich besuchte [Berlin].
 ‘I visited Berlin.’
 (73) a. [Die kluge Anna] löste das Rätsel.
 ‘Anna, who is clever, solved the mystery.’
 b. Ich besuchte [das lebhafte Berlin].
 ‘I visited Berlin which is vivacious.’

If used without an article, proper names of all genders have a special form with the “superstable marker” -s (never -es) (Dammel & Nübling 2006). This form is traditionally analyzed as a genitive form, since it can be found in many contexts demanding the genitive case, for example as a prenominal possessor:

- (74) a. [Annas] Vorschlag
 ‘Anna’s suggestion’

- b. [Berlins] *bekannteste Baustelle*
 ‘Berlin’s most famous building site’

In some substandard varieties of German, personal names are increasingly used with the definite article, even when not attributed, notably in the south of the German language area; see Elspaß & Möller (2003 et seq.). Consequently, the article-less forms with -s are substituted by other constructions in these areas:

- (75) a. §[Die Anna] *löste das Rätsel.*
 ‘Anna solved the mystery.’
 b. §[Der Anna ihr] *Vorschlag.* (literally: the Anna her suggestion)
 ‘Anna’s suggestion’
 b’. §Der *Vorschlag* [(von der Anna)] (literally: the suggestion of the Anna)
 ‘Anna’s suggestion’

Geographic names as in (72b) and (74b) are also article-less in the southern regions; nonetheless, in the spoken language of these regions, the substitutive construction dominates:

- (76) a. *die bekannteste Baustelle* [von Berlin]
 ‘the most famous building site of Berlin’

In written Standard German, the forms with -s can be observed in the following syntactic contexts:

- i. as prenominal and postnominal possessors
- ii. as genitive object
- iii. as complements of some prepositions

In all these contexts, the article-less forms with -s seem to contradict the Genitive Rule (29). In DPs/NPs with case agreement, they do not occur; see (iv).

i.

As possessive modifiers of a noun, the forms with -s occur in prenominal and postnominal positions. The prenominal use predominates (see also below). Remarkably, the postnominal use depends on word length: shorter proper names seem to be avoided, contrary to longer names, particularly those with two or three components (Zifonun 2001; Peschke 2014):

- (77) a. Prenominal:
 [Bachs] *Fugen erfreuten die Konzertbesucher.*
 b. Postnominal:
 %Die Fugen [Bachs] *erfreuten die Konzertbesucher.*

- c. Postnominal, substitutive construction:
Die Fugen [von Bach] erfreuten die Konzertbesucher.
 ‘The concertgoers enjoyed Bach’s fugues.’
- (78) a. Prenominal:
[Johann Sebastian Bachs] Fugen erfreuten die Konzertbesucher.
- b. Postnominal:
Die Fugen [Johann Sebastian Bachs] erfreuten die Konzertbesucher.
- c. *Die Fugen [von Johann Sebastian Bach] erfreuten die Konzertbesucher.*
 ‘The concertgoers enjoyed Johann Sebastian Bach’s fugues.’
- (79) a. Prenominal:
Angela Merkel ist [Europas] bekannteste Politikerin.
- b. Postnominal:
%Angela Merkel ist die bekannteste Politikerin [Europas].
- c. Postnominal, substitutive construction:
Angela Merkel ist die bekannteste Politikerin [von Europa].
 ‘Angela Merkel is Europe’s most famous politician.’

ii.

Only few verbs of Contemporary Standard German govern genitive case, and even these verbs tend to govern alternative cases; see also (51) and (52):

- (80) a. *%Ich habe mich extra [Julias] angenommen, weil ich letzstens so viel Fanfiction gelesen habe, wo so etwas ständig vorkommt.*
 ‘I especially attended to Julia, because I’ve read a lot of fan fiction lately in which this happens a lot.’ <internet quote>
- b. *§Dolph hat sich [Julia] angenommen.*
 ‘Dolph attended to Julia.’ <internet quote>
- (81) a. *%Sie passt bestens zur kollektiven Depression, die sich [Deutschlands] bemächtigt hat.*
 ‘It fits perfectly to the collective depression that took over Germany.’ <internet quote>
- b. *§wenn eine invasorische Macht sich [Deutschland] bemächtigt*
 ‘if an invading army takes over Germany’ <internet quote>
- (82) a. *Die Münchener Universität gedenkt Professor Hubers und der Geschwister Scholl.*
 ‘The University of Munich is commemorating Professor Huber and the Scholl siblings.’ <internet quote>
- b. *§Die Universität gedenkt [Professor Welzel] mit einer Trauerfeier.*
 ‘The university is commemorating Professor Welzel with a memorial service.’ <internet quote>

- c. *§Der Bürgermeister gedenkt [Friedhelm Schmidt], der im Alter von 81 Jahre gestorben ist.*
 ‘The mayor is commemorating Friedhelm Schmidt, who died at the age of 81.’
 <internet quote>

iii.

In written Standard German, many prepositions govern genitive case. However, the forms of personal names with -s occur only rarely:

- (83) a. Prenominal:
Kein Wunder, dass die Kooperation seitens [Merkels] nur begrenzt vorhanden war.
 ‘No wonder there was only limited cooperation on Merkel’s part.’
 <internet quote>
- b. Substitution (dative):
§Hier Unwissenheit seitens [Merkel] zu interpretieren ist lächerlich.
 ‘It is ridiculous to read a lack of knowledge on Merkel’s part into this matter.’
 <internet quote>

Article-less geographic names seem to be more usual:

- (84) a. *Schon etwas außerhalb [Berlins] sieht die Lage für Bewerberinnen und Bewerber oft besser aus.*
 ‘Just outside of Berlin, things often look better for applicants.’
 <internet quote>
- b. Substitution I (P + dative):
Außerhalb [von Berlin] kann man unsere frischen Pilze derzeit nicht erwerben.
 ‘One is not able to purchase our fresh mushrooms outside of Berlin.’
 <internet quote>
- c. Substitution II (dative, non-standard):
§Unser Team führt regelmäßig Verhaltensberatungen auch außerhalb [Berlin] durch.
 ‘Our team frequently gives expert advice on behavior (also) outside of Berlin.’
 <internet quote>

Traditional Standard German has also some postpositions (and some combinations that are often analyzed as circumpositions) that govern the genitive case. According to the prescriptive grammars, these items do not allow any substitutive construction and consequently fall into disuse in the long term. Occasionally, they are constructed using the forms of article-less proper names with -s:

- (85) a. Prenominal:
Das war leichter gesagt als getan, zudem Alexandra [Stefans] wegen manchmal sehr dünnhäutig war. (Rommeiß 2014: 3)
 ‘This was easier said than done, besides Alexandra was very thin-skinned sometimes because of Stefan.’
- b. Substitutive construction (ungrammatical):
 *[Stefan] wegen
- (86) a. *Es gibt aber die Alternative, es muss sie um [Europas] willen geben.*
 ‘But there is the other way, it has to be there for the sake of Europe.’
 <internet quote>
- b. Substitutive construction (non-standard, very rare):
 §*Um [Europa] willen gilt es, am Euro festzuhalten.*
 ‘For the sake of Europe, we must keep the Euro.’ <internet quote>

iv.

If a DP/NP receives genitive case by means of case agreement, the forms of proper names with -s hardly ever occur. Instead, we find nominative forms (interpretable as underspecified with respect to case):

- (87) a. ???*Das Zimmer [der jüngsten Tochter, [Karins]], stand offen.*
 b. *Das Zimmer [der jüngsten Tochter, [Karin]], stand offen.*
 ‘The door of the room that belonged to the youngest daughter, Karin, was open.’
- (88) a. *Die Universität gedenkt [ihres Gründers, [Johann Friedrich]].*
 ‘The university is commemorating its founder, Johann Friedrich.’
 c. *Otto wohnt außerhalb der [Landeshauptstadt, [Wiesbaden]].*
 ‘Otto lives outside of the provincial capital, Wiesbaden.’

As hinted repeatedly above, the token frequency of the forms on -s seems not to correspond with the general frequential tendencies of genitive constructions. A corpus research by Ackermann, this volume, confirmed this suspicion. Ackermann has shown that one single use predominates drastically – the use as a prenominal possessor (see also Gallmann 1990, Zifonun 2001). In all other contexts, the forms on -s must be judged as residues from former periods of the German language.

If we neglect the residual usages, two questions arise:

- Why are the forms with -s allowed to contradict the Genitive Rule (29)?
- Why do these forms only appear prenominal?

The answers that can be found in recent literature all tend to claim the same hypothesis: The forms with -s are no genitive forms at all – at least synchronically

Table 2. Genitive constructions of article-less proper names (% = residual use, stylistically marked; § = non-standard)

Genitive construction	Examples	Competing constructions
preposition	?wegen Karins 'because of Karin' ???abseits Karins 'offside of Karin'	wegen Karin 'because of Karin' abseits von Karin 'aloof from Karin'
postposition	%Karins wegen 'because of Karin'	wegen Karin 'because of Karin'
circumposition	%um Europas willen 'for the sake of Europe'	§um Europa willen 'for the sake of Europe'
postnominal	%die Ideen Karins 'the ideas of Karin' ?die Vorschläge Iris 'the suggestions of Iris'	die Ideen von Karin 'the ideas of Karin' die Vorschläge von Iris 'the suggestions of Iris'
prenominal	Karins Ideen 'Karin's ideas' Iris' Vorschläge 'Iris' suggestions'	§der Karin ihre Ideen 'Karin's ideas' §der Iris ihre Vorschläge 'Iris' suggestions'
object	%Ich nahm mich Karins an 'I looked after Karin' %Man gedachte Einsteins 'People commemorated Einstein'	§Ich nahm mich Karin an 'I looked after Karin' §Man gedachte Einstein 'People commemorated Einstein'

(Lindauer 1995, 1998; Demske 2001; Nübling 2012; Ackermann, this volume); however, see Neef (2006) for an opposing view.

Diachronically, the change can be seen as an instance of deflection. In the details, the individual approaches differ:

- Lindauer (1995) assumes that the former genitive morpheme *-s* is reanalyzed as a derivational suffix. If added to proper names, the suffix changes their syntactic category; the result is something like a possessive adjective or a possessive determiner.
- Fuß (2011) and Ackermann, this volume, propose that the morpheme *-s* is reanalyzed as a phrasal clitic, comparable to the development in English.

6.3 Derivations from geographical proper names with suffix *-er*

Primarily, derivations from geographical names with the suffix *-er* denote the inhabitants of the respective country, region or city:

- (89) a. *Berlin* → *die Berliner*
'Berlin' → 'the citizens of Berlin'

- b. *die Schweiz* → *die Schweizer*
 ‘Switzerland’ → ‘the Swiss’
 ‘the inhabitants of Switzerland’

If used prenominally, the derivations with *-er* have developed into relational adjectives (Fuhrhop 2003). However, in contrast to normal adjectives, they are never inflected:

- (90) a. *eine Berliner Zeitung, die Kölner Studenten, die Schweizer Berge*
 ‘a Berlin newspaper’, ‘the students from Cologne’, ‘the Swiss mountains’

Since they are uninflected, we expect that they cannot fulfill the formal requirements of the Genitive Rule (cf. (29)). However, the homophony with the inflectional ending *-er* of strong adjectives led to genitive constructions as in (91). Some prescriptive grammars tolerate this use, for example Duden-Zweifelsfälle (2011: 281), though with a relativizing comment (“eigentlich nicht korrekt”, i.e. incorrect in the strict sense):

- (91) a. *?Stress löst nach Ansicht [Düsseldorfer Wissenschaftler] Parodontitis aus.*
 ‘Stress causes parodontitis, Düsseldorf-based scientists claim.’
 <internet quote>
- b. *?Eine Zahl, die sich nach Ansicht [Berliner Ärzte] deutlich senken ließe.*
 ‘A number which could be significantly decreased according to physicians from Berlin.’
 <internet quote>
- c. *?Nach Berichten [Hongkonger Zeitungen] fand Präsident Lee bei den Besuchern viel Verständnis.*
 ‘As is reported by Hongkong-based newspapers, president Lee was shown a lot of understanding by the visitors.’
 <internet quote>

6.4 Some other constructions

Occasionally, one stumbles over other constructions that violate the Genitive Rule. Some of them are presumably performance errors. Because of this, confusions of the genitive forms *deren* and *dessen* with the case-agreeing possessive determiners of the *sein/ihr* type are not infrequent. The results are sentences such as (92):

- (92) a. *50 Facebook User mit einer Erkältung wurden ausgewählt und mit Hilfe deren Freunde eine amüsante Kampagne gestartet.*
 ‘50 Facebook users who had caught a cold were chosen and an amusing campaign was started with the help of their friends.’ <internet quote>

Other deviations seem to be lexically bound und therefore can be interpreted as residual patterns. One such example shows instances of the Genitivus qualitatis with the determiners *beide* (‘both’) or *beiderlei* (‘both kind of’) and the noun *Geschlecht* (‘gender’):

- (93) a. *Als stimmberechtigte Mitglieder können Personen beiderlei Geschlechts nach Vollendung des 18. Lebensjahres aufgenommen werden.*
 ‘Persons of both sexes can be affiliated as members entitled to vote at the age of 18.’ <internet quote>
- b. *Im folgenden Text sind generell Personen beiden Geschlechts gemeint, auch wenn teilweise nur die weibliche Form verwendet wird.*
 ‘In the following text, persons of both sexes are addressed, even though sometimes only feminine forms are used.’ <internet quote>

Note the singular form of the nouns; this points to a distributive reading. With other cases, this usage is less frequent:

- (94) a. *Gleiches Recht für beides Geschlecht.*
 ‘Equal rights for both sexes.’ <internet quote>
- b. *beiderlei Geschlecht ist vertreten*
 ‘Both sexes are represented.’ <internet quote>

7. The Genitive Rule and the tendency to redundancy-free inflection

In German, there is a tendency to reduce inflectional redundancy in DPs/NPs. It also involves genitive phrases – as long as the Genitive Rule is not violated.

Three phenomena can be observed:

- only one genitive morpheme → no genitive ending on the noun
- only one genitive morpheme → the ending *-es* of determiners is replaced with *-en*
- preference for uninflected nouns after prepositions with unstable case government

7.1 Loss of the genitive ending of nouns

The prescriptive grammars only partially allow redundancy-free patterns with only one clear genitive morpheme. The loss of the noun’s genitive morpheme *-s/-es* is allowed with proper names (also with secondary use of the article; see (73)) and similar common nouns such as the names of months. See also Zimmer, this volume:

- (95) a. *Die Pyramide des Matterhorns besteht aus afrikanischen Gesteinen.*
 ‘The pyramid of the Matterhorn consists of African rock.’ <internet quote>
- b. *Den Grundstein für den alpinen Tourismus legte dagegen Edward Whymper 1865 durch die Besteigung des Matterhorn.*
 ‘In 1865, Edward Whymper, however, laid the foundations for alpine tourism by climbing the Matterhorn.’ <internet quote>

is an increasing tendency for the weak ending if the noun bears the specific ending *-s/-es*. Genitive phrases without any specific genitive ending are ungrammatical – in accordance with the Genitive Rule (cf. (29)). See (30), repeated here as (100):

- (100) a. *Das ist die Pflicht [jedes Schülers].*
 b. *Das ist die Pflicht [jeden Schülers].*
 c. *Das ist die Pflicht [jedes Studenten].*
 d. **Das ist die Pflicht [jeden Studenten].*
 ‘That is the duty of every student.’

Variant (100b) does not violate the rules for the feature distribution in DPs/NPs (cf. (11)). It suffices to assume that the primary feature bearer (here: *jeden*) does not need to be identical with the item that indicates the genitive case (here: *Schülers*).

In a study performed by the Duden publishing house in their large internal corpus, the ratio between the variant *jeden* to the variant *jedes* was 1:2 (conducted in 2009). In lexicalized phrases, the forms with *-en* even prevail:

- (101) a. *Menschen [jedes/jeden Alters]*
 ‘persons [of all ages]’
 b. *bar [allen Verstandes]*
 ‘without [any intellect]’

With some determiners, the prescriptive grammars disallow the forms with *-en*. Nevertheless, such forms are easy to be found in any corpus. Here too, the forms with *-en* are more frequent with lexicalized phrases. It can be assumed that with lexicalized phrases, the visibility of the genitive case is less important than with occasional phrases:

- (102) a. *§Am Ersten [diesen Monats] hatte ich 15 EUR an die Telekom überwiesen.*
 ‘On the first day of this month, I had transferred 15 Euros to the Telekom.’ <internet quote>
 b. *§Bei Menschen [meinen Alters] rufen Lärm und Widerspruch plötzlich erhöhten Blutdruck hervor.*
 ‘Noise and opposition instantly cause hypertension in people my age.’ <internet quote>
 c. *§Du würdigtest mich [keinen Blickes] mehr.*
 ‘You ignore me.’ (literally: You don’t cast a glance at me.) <internet quote>

7.3 The preference against case forms of nouns

Some prepositions, mostly used in written language, vary between genitive and dative government. There is a tendency to prefer those syntagms where the

noun can remain uninflected. In the singular, this favors the dative, in the plural the genitive – as long as the Genitive Rule (cf. (29)) is respected. If the Genitive Rule were violated, the government of dative is compulsory, see (104e) vs. (104f). The only exception can be seen in (103e), as discussed above (see (65) and (66)):

- (103) a. *trotz [des starken Regens]*
 b. *trotz [dem starken Regen]*
 c. *trotz [starken Regens] → (65 b)*
 d. *trotz [starkem Regen]*
 e. *trotz % [Regens]*
 f. *trotz [Regen]*
 ‘despite the (heavy) rain’
- (104) a. *trotz [der starken Regenfälle]*
 b. *trotz [den starken Regenfällen]*
 c. *trotz [starker Regenfälle]*
 d. *trotz [starken Regenfällen]*
 e. *trotz */§ [Regenfälle] → (66 b)*
 f. *trotz [Regenfällen] → (66 c)*
 ‘despite the (heavy) rainfalls’

However, divergent syntagms are not infrequent in texts that have not been proofread:

- (105) a. §*Das Nauheimer Wetter zeigte sich trotz Regenfälle am Nachmittag von seiner besten Seite.*
 ‘Despite the rainfalls, the weather in Nauheim was fine in the afternoon.’
 <internet quote>
- b. °*Rekordbeteiligung trotz Regens beim Benefix-Lauf in Weimar*
 ‘Record attendance despite rain at the charity race in Weimar.’
 <internet quote>

8. Conclusion

The Genitive Rule (cf. (29)) is an epiphenomenon based on a visibility condition for genitive case on the one hand and the rules for the distribution of case, number and gender features within the DP/NP on the other:

(29) Genitive Rule

A DP/NP can bear genitive case only if (i) and (ii):

- (i) The DP/NP contains at least one non-nominal feature bearer.
 (ii) The DP/NP contains at least one item with the ending *-es/-s* or *-er*.

The Genitive Rule predicts the occurrence of genitive syntagms and their competitors with other cases rather exactly. Nonetheless, some exceptions can be observed. Most of them can be explained as residual, for example simple nouns after some prepositions (as in *wegen Sturms* ‘because of a storm’). However, there is one construction that deserves a closer look, namely the pronominal forms of article-less proper names with *-s*. These forms must be analyzed most likely as an instance of deflection: Historically true genitive forms, they constitute synchronically either possessive items of the category D or A or orthographically disguised combinations with a phrasal suffix (as in English).

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From genitive inflection to possessive marker?

The development of German possessive -s with personal names

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This paper deals with the status of the *s*-marker with personal names in German from a diachronic perspective. On the basis of corpus data it is argued that the deflexion of personal names in genitive phrases is much more advanced than it has been claimed in the literature: only the invariant marker *-s* occurs frequently, namely in constructions of the type *Hildes Wohnung* ‘Hilde’s flat’. Thus, it becomes obvious that such constructions, which are less widely studied than their English or Swedish counterparts, play a special role. It will be argued that an interpretation of the *-s* in these adnominal possessive constructions as a kind of prenominal genitive use fails. Given this, a comparison with the development of possessive *-s* in the history of English reveals that there are striking similarities with the developments in German.

1. Introduction

In this paper, I will discuss the status of the *s*-marker with personal names in German from a diachronic perspective. The focus will be on adnominal possessive *-s* constructions of the type *Hildes Wohnung* ‘Hilde’s flat’,¹ which “is less widely studied than its English or Swedish counterparts. It is generally dealt with as a kind of prenominal genitive use” (Scott 2014: 278). Providing synchronic and diachronic data, I will show that an interpretation of the *-s* in adnominal

1. The term ‘possession’ is used here in the widest sense and has to be understood as a label for a special phrase whose core meaning can be described as possession or ownership (e.g. *Peter’s car*). I am aware that the relations termed as ‘possession’ cannot always be subsumed under possession in the narrow sense (e.g. kinship: *John’s mother*, location: *Germany’s capital*, part-whole: *Mary’s hair*, etc.). By doing so I want to avoid confusion between the genitive case as an element forming part of the case system and possessive *-s*, which behaves differently in many respects. I follow Börjars et al. (2013) and Scott (2014) in this tradition.

possessive constructions as a proper genitive fails since *-s* operates not exclusively on the word level, with the concordial marking that would be a typical characteristic of morphological genitive case, but also on the phrase level, showing phrase marking.²

Since it is mainly personal names – or kinship terms used like personal names – that function as prenominal possessors in German, I will argue that an adequate description of the possessive *-s* construction cannot work without a proper understanding of the synchronic and diachronic special morphosyntax of personal names. Thus far, however, in grammatical research, proper names have received comparatively little attention. Nevertheless, recent studies show how fruitful the investigation of proper names can be since names are often the starting point for morphological innovations (cf. the papers in Gallmann & Neef 2005; Van Langendonck 2007; Anderson 2007; Nübling & Schmuck 2010; Fuß 2011; Nübling 2014). Personal names, which are on top of the animacy hierarchy, can be regarded as the most prototypical name class. Thus, in many respects they exhibit the most progressive grammatical behaviour (cf. Nübling, Fahlbusch & Heuser 2015: 98–106). This is why I will focus primarily on this special proprial class.

This paper is structured as follows: First I will give an overview of the crucial morphological differences between personal names and common nouns from a synchronic as well as diachronic perspective. Additionally, an explanation for the drastic inflectional change of personal names, which has led to these differences, is provided. In Section 3, I will concentrate on genitive phrases in present-day German. Corpus data suggest that the deflexion of personal names in genitive phrases is much more advanced than initially thought and it becomes obvious that possessive *-s* plays a special role. Subsequently, I will discuss two proposed formal analyses for German adnominal possessive constructions, one of which fits better with the view that possessive *-s* is no longer a proper inflection. In Section 4, I will provide empirical data in favour of such an analysis of *-s* as a possessive marker. Accordingly, a comparison with the development of possessive *-s* in the history of English shows that there are striking similarities with the German development.

2. I use the term ‘concord’ to refer to case matching between the noun and the determiner (and other elements within the phrase), following Blake’s (2004: 184) differentiation between concord and agreement. For a discussion of these two terms see Corbett (2006: 5–7); for a discussion of case as an agreement feature see Corbett (2006: 133–135).

2. Morphology: The case declension of personal names

Recent studies brought into prominence the idea that proper names differ significantly from common nouns with respect to their morphological properties (cf. Fuß 2011; Nübling 2012; for family names Plank 2011). In what follows, I will give a short overview of the case declension for proper names and appellatives in present-day German before I trace the historical development and give an explanation for the observable morphological changes.

2.1 Synchrony

Compared to appellatives, proper names possess a rather restricted (paradigmatic) inventory of case inflection forms in present-day German (cf. Table 1). According to the Duden-Grammar (2009: 194), determinerless proper names³ only show the invariant marker *-s* irrespective of gender in the “genitive” singular (*Michaels/Michaelas Buch*, ‘Michael’s/Michaela’s book’).⁴ Section 3 will show that this generalization is defined too broadly, since not all determiner-less proper names in genitive constructions are marked with *-s*.

Table 1. The singular case marking for non-determiner names and appellatives

	Proper names			Appellatives			
	F.	M.	N.	F.	M.	N.	
						strong	weak
NOM.	-Ø	-Ø	-Ø	-Ø	-Ø	-Ø	-Ø
ACC.	-Ø	-Ø	-Ø	-Ø	-Ø	-(e)n	-Ø
DAT.	-Ø	-Ø	-Ø	-Ø	-Ø/(-e)	-(e)n	-Ø/(-e)
GEN.	-s/-Ø	-s/-Ø	-s/-Ø	-Ø	-es/-s	-(e)n	-es/-s

As Table 1 shows, feminine appellatives never take the inflectional suffix *-s* in the genitive singular while female and thus feminine proper names surprisingly do so as long as they occur without a determiner. Thus the strong [+/- feminine]

3. In Standard German only some name classes – e.g. personal names – occur primarily without a determiner. For an overview cf. Duden-Grammar (2009: 299–302).

4. Also in the plural the only possible marker is *-s*, whereas common nouns show rich allomorphy. Compare e.g. the appellative *Koch*_{SG} – *Köche*_{PL} (‘cook(s)’) and the family name *Koch*_{SG} – *Kochs*_{PL}.

distinction – which applies to the whole nominal domain in German – does not hold for proper names (cf. Nübling 2008).

If we take a closer look at the onymic *s*-marker another difference to common nouns becomes apparent: depending on their phonological structure many appellatives can take the short ending *-s* as well as the long ending *-es* in the genitive case (cf. (1a))⁵ whereas today names are restricted to the non-syllabic ending (cf. (1b)).

- (1) a. *die Romane d-es Mann-s/-es*
 the novels the-GEN man-GEN
 ‘the man’s novels’
 b. *Thomas Mann-s/*-es Romane*
 Thomas Mann-GEN? novels
 ‘Thomas Mann’s novels’

Even if a name ends in /s/ the long ending *-es* is no option (cf. (2a)) in contrast to common nouns (cf. (2b)).⁶ In this case, the name remains unmarked while an apostrophe signals the elision (the Duden-Grammar 2009: 209 speaks of a fusion of ending and genitive marker) in written language. The old ending *-ens* (as in *Hans-ens*), which is restricted to monosyllabic names, sounds archaic in present-day German (cf. Wahrig 2003: 321).

- (2) a. *Urs’/*-es/?-ens Geburtstag*
 Urs’-GEN? birthday
 ‘Urs’s birthday’
 b. *die Teilnehmer d-es Kurs-es/*-Ø*
 the participants the-GEN class-GEN
 ‘the participants of the class’

Due to this special behaviour, the Duden-Grammar (2009: 194) proposes that the determiner-less representatives of the proper name class form their own declension class. If a name occurs with an article (either in fixed use of the article, e.g. with some toponyms as *die Schweiz* ‘Switzerland’ or secondary use in the case of personal names, e.g. if the name is attributed), it proceeds to the normal inflection pattern, i.e. feminine personal names are not *s*-marked (3a) and neuter/masculine non-personal names predominantly take the short ending *-s* according

5. Cf. Szczepaniak (2010), Fehringer (2004, 2011) or Konopka & Fuß (2016) for an explanation for this non-exclusive phonologically determined variation.

6. Common nouns, native appellatives or morphologically integrated loan words ending in /s/ mainly take the long ending *-es*. Non-integrated loan words ending in /s/ meanwhile tend to take zero marking just as proper names do (cf. Zimmer, this volume).

to the strong declension (3b), notwithstanding the fact that zero marked forms are favoured in the case of masculine personal names (cf. Duden-Grammar 2009: 200–202). Indeed, as the data in Section 3 will show, zero marking is the default for feminine as well as masculine first names.

- (3) a. *Hilde-s Fahrrad* → *das Fahrrad d-er*
 Hilde-GEN? bike the bike the-GEN
 klein-en Hilde-Ø
 little-GEN Hilde
 ‘(little) Hilde’s bike’
- b. *Hartmut-s Fahrrad* → *das Fahrrad d-es*
 Hartmut-GEN? bike the bike the-GEN
 klein-en Hartmut-(s)
 little-GEN Hartmut(-GEN)
 ‘(little) Hartmut’s bike’

Neef (2006: 277) considers this analysis problematic since the classification of a noun to its declension class never depends on the syntactic context. Thus, he presents an analysis that assumes syntactically conditioned allomorphy within only one declension class for determiner-less proper names. As I will show, it is more plausible to regard proper names – above all personal names – as items which are no longer case-inflecting. The next section will show the shift of proper names towards deflexion since the Old High German period (500/750–1050).

2.2 Diachrony

Steche (1927: 63) had already mentioned that proper names and common nouns were initially inflected in almost the same way. In Old High German proper names showed rich allomorphy and were grouped in several declension classes (cf. Table 2). According to Nübling (2012: 229), whether a name belongs to the strong or to the weak declension depends broadly speaking on its ending: a final consonant makes the name inflect strongly, a final vowel makes it inflect weakly.⁷

7. By contrast Fuß (2011: 27), who relies on Paul (1917) and Braune & Reiffenstein (2004), attributes the assignment to the strong or weak declension to the complexity of a name: two-part names as *Hadu-brant* < Proto-Germanic **hatu* ‘fight’ + **branda* ‘firebrand, blade’ were strongly inflected, while one-part names as *Bruno* were weakly inflected.

Table 2. Strong and weak declension of masculine/feminine personal names in Old High German (cf. Nübling 2012: 229–230; Steche 1927: 140)

	Strong declension			Weak declension	
	masculine (in sg. <i>a</i> = <i>i</i> -class)	feminine (<i>(j)ō</i> -stem)	feminine (<i>i</i> -class)	masculine	feminine
NOM.	<i>Hartmuot</i>	<i>Gudrūn-Ø</i>	<i>Hiltigart</i>	<i>Brūn-o</i>	<i>Mari-a</i>
ACC.	<i>Hartmuot-an</i>	<i>Gudrūn-a</i>	<i>Hiltigart</i>	<i>Brūn-un/-on</i>	<i>Mari-ūn</i>
DAT.	<i>Hartmuot-e</i>	<i>Gudrūn-u</i>	<i>Hiltigart-ī</i>	<i>Brūn-in/-en</i>	<i>Mari-ūn</i>
GEN.	<i>Hartmuot-es</i>	<i>Gudrūn-a</i>	<i>Hiltigart-ī</i>	<i>Brūn-in/-en</i>	<i>Mari-ūn</i>

Interestingly, the strong masculine name declension shows even more case distinctions than that for appellatives in Old High German. While common masculine nouns of the *a*-declension had no distinct forms for the accusative singular, proper names showed the ending *-an*.⁸ Nübling (2012: 230) regards this nominative/accusative opposition, which can also be observed in the strong feminine paradigm (nominative: *-Ø* vs. accusative: *-a*) as functional since it ensures that the semantic roles AGENT and PATIENT exhibit different markers, which is important for words that denote animate entities as first names do (but cf. Section 2.3).

The following periods are characterized by paradigmatic and later syntagmatic deflexion. Following this we can observe levelling between strong and weak as well as between feminine and masculine inflection (cf. Nübling 2012: 231). The two most important changes concern the development of two superstable markers within the proper name declension: first *-en* for the accusative and dative cases and second the *-s* for the genitive case. The term ‘superstable marker’ (*überstabiler Marker*) goes back to Wurzel (1987: 82–83), who gives the following definition:

[...] single markers are taken from one class to the other. This is always the case for markers of stable inflectional classes which also occur in non-stable inflectional classes. Thus, they exhibit a higher degree of stability than the stable inflectional class as a whole and can be characterized as **superstable markers**. Superstable markers show a trend towards ‘diverging’ from the inflectional paradigm and independently spreading more quickly and comprehensively than the inflectional classes to which they belong. [...] Cases where superstable markers are attached to inflectional forms already having the respective categorial characteristics

8. This inflective seems to stem from the adjectival inflection and was presumably mediated through the adjectival element in dithematic names like *Diet_N-rich_A* < Proto-Germanic **theudō* ‘folk’ + **-rihas* ‘mighty’ (for details cf. Nübling 2012: 230; Fuß 2011: 27–28; Behaghel 1928: 535).

illustrate that the spreading of single markers follows non-proportional analogy and does not involve the basic lexical form, cf. *die Junge-n* 'the boys' > *die Junge-n-s* in analogy to *die Mädel-s* etc.

The spreading of superstable markers in inflectional systems results in a kind of 'avalanche effect': Every spreading of a marker to a new inflectional class further increases its degree of stability, which improves the preconditions for its transfer to still further inflectional classes, etc.

In Middle High German (1050–1350) the weakening of unstressed vowels led to a syncretism of the strong and weak masculine accusatives to *-en*, which spread to the dative of the strong masculine paradigm (cf. Table 3). Later even the accusative/dative *-(e)n* of the weak feminine declension spread to the strong feminines.

Table 3. The spread of *-en* in the accusative and dative case of personal names (cf. Blatz 1900: 338; Steche 1927: 140)

	Strong declension		Weak declension	
	feminine	masculine	masculine	feminine
ACC.	Hiltegart > -en	Hartmuot- en (> <i>-e</i>) ⁹	Brün- en	Mari- en
DAT.	Hiltegard-e > -(e)n	Hartmuot-e > -en	Brün- en	Mari- en

For the genitives it is the allomorph *-s* from the strong masculine paradigm that emerges as a superstable case marker across all declension classes during the (Early) New High German period (1350–1900) (cf. Table 4). First – in a relatively long intermediate phase – the *-s* occurs suffixed to the old genitive ending *-en* > *-en-s* in the weak masculine paradigm as *-ens*, which is eventually replaced by the short ending: *-ens* > *-s*.¹⁰ Interestingly, the *-s* also spreads to the strong and weak feminine paradigm; this does not go along with the advancing differentiation of feminine nouns from masculine and neuter nouns, which often coincide in the non-proprietary domain in German.¹¹

9. In rare cases, the strong masculine dative *-e* spreads to accusative. In the end, however, the suffix *-en* prevails.

10. The archaic double ending *-ens* has only survived with monosyllabic names ending in a sibilant (cf. Section 2.1).

11. An anonymous reviewer pointed out that the described development of *-s* as a superstable marker shows interesting structural similarities with the reanalysis of *-s* from a genitive suffix to a linking element in German. Here, too, we can observe an analogical spread of (the former genitive suffix) *-s* to new formations in which its former inflectional origin is not indicated, e.g. compounds with feminine and thus not overtly marked nouns as first

Table 4. The spread of *-s* in the genitive case of personal names in (Early) New High German (cf. Steche 1927: 140)

	Strong declension	Weak declension
	feminine	masculine
GEN.	Hiltegard-e > -ns > -s	Hartmut-s/(-ens) Brun-ens > -s Mari-ens > -s

This reduction of allomorphy and the emergence of *-en* and *-s* as superstable markers can be seen as morphological simplification and the first steps towards deflexion. Dammel & Nübling (2006: 99) note that Wurzel’s term ‘superstable marker’ evokes false expectations since those markers are not in fact signs of stability. Rather, as Dammel & Nübling (2006: 99) show,

superstability marks the beginning of the end of morphological expression. Thus, superstable markers indicate quite the reverse concerning the category they express, i.e. they only indicate the weakness of the respective category.

And indeed, after the above-described paradigmatic deflexion (loss of allomorphy and emergence of superstable markers) the syntagmatic deflexion, i.e. the loss of inflectional markers on the name, begins. In the 18th–19th century, the object marker *-en* disappears and leaves just the *-s* marker remaining in the merged personal name paradigm (cf. Table 1). But since the late 18th century the *-s* has also undergone deflexion since it was lost increasingly in phrases where the genitive was already marked on the determiner (so-called *Monoflexion* ‘once-only marking’). A prominent example for this change is Goethe’s book title *Die Leiden des jungen Werther* ‘The Sorrows of Young Werther’, where the personal name *Werther* was *s*-marked in the first edition in 1774, but not in the second edition thirteen years later. Section 3 will show that the syntagmatic deflexion of *-s* is even more advanced in present-day German.

In this paper, I will argue that synthetic case marking is soon to be lost completely in the proprial domain. In present-day German, the *-s* on personal names can no longer be regarded as a proper genitive case suffix with clear morphological status anymore but rather as a possessive marker comparable to the clitic-like *-s* markers in other Germanic languages such as English or Swedish. The big difference between German and all other Germanic languages for which the *-s* construction has been described lies in the fact that in German it is only

constituents such as *Liebe-s-brief* ‘love-LE-letter’ (cf. Kopf, this volume, for a corpus study on the genesis and productivity of such linking elements in German). Due to these similarities, Scott (2014: 278–294) regards both the linking *-s* and the German possessive *-s* as “exapted fragments of the genitive case”.

proper names and not all nouns – as is usual – that have undergone case deflexion thus far.

In the next part, I will briefly explain why personal names are special members of the noun class which follow their own grammatical rules. Then I will come back to the syntagmatic deflexion in present-day German.

2.3 Why are personal names prone to deflexion? – Animacy versus scheme constancy

The so-called *animacy hierarchy*, which goes back to Silverstein (1976), is often used to describe more or less universal developments of particular grammatical phenomena. The idea is that intertwining cognitive factors such as *animacy*, *individuality*, *referentiality* or *definiteness* are reflected in the grammar. Thereby noun phrases that show a higher degree of animacy are ranked higher in a hierarchy and thus are more favoured by grammatical processes such as case marking or agreement (cf. Lyons 1999: 213). The *extended animacy hierarchy* taken from Croft (2003: 130) sees proper nouns in a relatively high position between pronouns and common nouns with human reference (cf. (4)).

(4) EXTENDED ANIMACY HIERARCHY

1./2. person pronouns > 3. person pronoun > **proper names** > human
common noun > nonhuman animate common noun > inanimate
common noun

Regarding the morphological marking, the implicative scale predicts that proper names should show more case differentiation than common nouns referring to humans. With regards to the older stages of German as well as some Germanic dialects, such as West Frisian, this prediction seems to be right (cf. Hoekstra 2010). For present-day (Standard) German it is however not the case since proper names on the one side drift towards their complete deflexion while on the other side common nouns show case marking at least on the determiner. In addition to that, a group of common nouns belonging to the so-called weak masculines – a declension class whose members prototypically denote male humans like *Matrose* ‘sailor’ – show oblique case marking. Generally, German is regarded as relatively conservative with respect to the nominal inflection, since case is marked by determiner and noun in interplay (concordial marking). This special behaviour within the Germanic language family could be associated with the ‘framing principle’ (cf. Ronneberger-Sibold 1994). I will come back to this principle in Section 3.2.

Against this background, it is quite surprising that personal names, which always refer to humans and indeed do not take the definite article for case marking in Standard German, have lost case marking since early Modern German. Steche (1927: 140) mentions the radical restructurings within the name declension and

faults the lack of explanation. Recent studies suggest that the non-inflection of proper names – and other peripheral members of the noun class – could be explained by a functional motivation called *morphological schema constancy*. It can be defined as follows (cf. Ackermann & Zimmer 2017: 146):

[Der Begriff morphologische Schemakonstanz bezieht sich auf] die Konstanthaltung eines Wortkörpers durch die Vermeidung besonders wortkörperaffizierender Elemente zugunsten strukturbewahrender Flexive (z.B. *mehrere Taxi-s* statt *mehrere Tax-en*) oder – im radikalsten Fall – der Deflexion (z.B. *die Gefahren des Internet-Ø* statt *die Gefahren des Internet-s*).

‘[The term morphological schema constancy refers to] word form stability through the avoidance of inflectional elements that strongly affect the shape of a word (e.g. [singular: *Taxi*] *mehrere Tax-en* vs. *mehrere Taxi-s* ‘many taxis’), or the avoidance of inflectional elements entirely (e.g. *die Gefahren des Internet-Ø* vs. *die Gefahren des Internet-s* ‘the dangers of the internet’).’ (my translation, TA)

According to Nübling (2005, 2012, 2014) and Nübling & Schmuck (2010) schema constancy plays a major role in the historical development of the inflection of proper names. It is often claimed that names have a special status regarding their semantics and semiotics, which is best described by Kripke’s (1980) term ‘rigid designators’. While appellatives possess a descriptive content, proper names are said to have no lexical meaning and thus denote an extra-linguistic object directly.¹² Therefore, the shape of the linguistic sign plays a more important role for names than for nouns and has to be protected in the case of the former. That view fits well with the notion of naturalness theory: it is iconic to reflect the semantic property ‘rigid designator’ on the (defective) inflectional system. Thus, according to Mayerthaler (1981: 152) defective declension paradigms are to be expected for proper names in various languages.

As already Steche (1927: 142) mentions, it is important to keep the structure of a name constant since otherwise it could be unclear where the stem ends and the inflectional marker begins. Nübling & Schmuck (2010: 153–154) give the plural form *Heydens* as an example where it is not clear whether the stem of this family name is *Heyd*, *Heyde* or *Heyden* because of plural allomorphy. The recognisability is particularly important for the numerous names with foreign characteristics in German (cf. Eisenberg 2012: 174–177). Steche (1925: 2105) sees a correlation between the increasing number of foreign personal names in the 19th century and the progressing syntagmatic deflexion during this time. Generally,

12. This view is by no means uncontroversial. Some scholars understand a referent’s features as the descriptive content of the proper name that names it (cf. Hansack 2004).

aside from foreign names, proper names are often set apart from appellatives via phonologic or orthographic features and thus their marked structure should be protected from inflectional modification.

Now, it is not surprising that just the *-s* evolved as (nearly) the only marker in the proprial domain: the short marker is not syllabic and thus inhibits potential resyllabifications or modifications of the final consonant such as devoicing, which is typical for German (e.g. the appellative *Koch*: [kɔχ]_{SG} – [kœ.çə]_{PL} vs. the family name *Koch*: [kɔχ]_{SG} – [kɔχs]_{PL}). The shape of a word is thus not seriously affected by *-s* and the morphological constancy is maintained.¹³ Even more shape protecting is the complete avoidance of inflectional elements, a phenomenon observed since early Modern German.

As Ackermann & Zimmer (2017) and Zimmer, this volume, show, besides explaining the inflectional change of personal names, scheme constancy holds responsible for various synchronic and diachronic variations within the nominal domain, which strengthens its explanatory power. What strengthens the explanatory power of scheme constancy even more is the fact that its functional benefits, which lie in the easier recognition of a word, have been confirmed by a psycholinguistic study (cf. Ackermann & Zimmer 2017 for details). A Self-Paced Reading Task has shown that the processing of unmarked peripheral nouns (proper names, abbreviations and loan words) in the genitive was significantly faster than the processing of the *s*-inflected form of those nouns, with the difference not simply explained by the absence of one letter.

In the next Section I will concentrate on the *-s* marking of personal names in genitive phrases in present-day German. This will shed light on the question of whether the *-s* is a stable case marker in different (morphosyntactic) kinds of genitives with concordial marking or if it is a marker of one special syntactic configuration, namely the adnominal possessive phrase.

3. (Morpho-)Syntax: “Genitive” constructions with personal names

Generally, the genitive has come to be a primarily ad-nominal case in present-day German (cf. (5)).¹⁴ In those constructions genitive attributes with common nouns

13. Because of these properties the German *s*-plural, which occurs on different peripheral nouns that underlie schema constancy such as loan words or abbreviations, is also called *transparency plural* (cf. Wegener 2010).

14. Note that the genitive differs completely from the other cases in this point. Due to the fact that the genitive has developed towards a case that primarily establishes the relationship

usually follow the head noun (cf. (5a)). The serialisation genitive > head noun (cf. (5b)) – which was the predominant order until Middle High German and is still frequent in Early New High German (see Demske 2001: 215–223) – can hardly be found in present-day German. Inanimate appellatives as prenominal genitive attributes are even said to be ungrammatical (cf. Demske 2001: 201; Fuß 2011: 36; cf. (5c)).

- (5) a. *das Haus unser-es Lehrer-s*
the house our-GEN teacher-GEN
b. *?unser-es Lehrer-s Haus*
our-GEN teacher-GEN house
'our teacher's house'
c. **dies-es Buch-es Eigentümer*
this-GEN book-GEN owner
'this book's owner'

In addition to the relatively stable ad-nominal domain (cf. Scott 2014: 263–264, 2011: 61–63) ad-adpositional genitives (cf. (6)) do occur frequently too and ad-verbal genitives (cf. (7)) also exist, but are rather rarely used in present-day German.¹⁵

- (6) *wegen d-es schlecht-en Wetter-s*
because_of the-GEN bad-GEN weather-GEN
'because of the bad weather'
(7) *wir gedenken unser-es Freund-es*
we commemorate our-GEN friend-GEN
'we commemorate our friend'

The examples in (5)–(7) show that masculine and neuter common nouns in the singular are usually marked with an inflection in genitive constructions in which modifiers and determiners show concord.

between two nominal entities the expression of possession – which has always been a task of the genitive – gained influence. While possession is the predominant but not the only semantic subtype that is found in ad-nominal genitives with appellatives, possession (in a wider sense) is the only available semantic relation in constructions with a proper name. Cf. Schlücker, this volume, for an overview of the semantic subtypes of the ad-nominal genitive in present-day German and Peter (2015) for a corpus study on the semantics of proprial prenominal genitives.

15. The adverbial (as in *sie trafen sich des Morgens* 'they met in the morning') and adjectival use (as in *des Mordes schuldig* 'to be guilty of murder') of the genitive is overall rare in present-day German (cf. Scott 2014: 251) and plays no role in proper name contexts. Therefore these uses will not be discussed here.

In this section, I will examine via corpus data whether the same holds true for personal names in present-day German.

3.1 Where does the *-s* occur?

3.1.1 Grammars

First of all, the occurrence of proper names in all of the above-mentioned genitive(-like) phrases is possible, though not equally acceptable. Table 5 gives an overview of the syntactic configurations as well as its evaluation by three influential grammars, namely the Duden-Grammar (2009), Eisenberg (2013) and Wahrig (2003).

Table 5. Proper names in genitive(-like) phrases and their normative evaluation

Structure	Example	Evaluation
ad-nominal		
prenominal	<i>Hartmuts Lied</i>	grammatical (Duden-Grammar 2009: 208; Eisenberg 2013: 253; Wahrig 2003: 561)
postnominal	<i>das Lied Hartmuts</i>	grammatical (Duden-Grammar 2009: 208; Eisenberg 2013: 253); ungrammatical (Wahrig 2003: 562)
postnominal + Det.	<i>das Lied des begabten Hartmuts</i>	grammatical , but there is a strong tendency towards not inflecting the name (Duden-Grammar 2009: 201); ungrammatical , name must stay uninflected (Eisenberg 2013: 144; Wahrig 2003: 322)
ad-adpositional		
with preposition	<i>wegen Hartmuts</i>	no longer common , <i>-s</i> omission is regarded as a grammatical alternative (Duden-Grammar 2009: 211; 972); grammatical (Eisenberg 2013: 253)
with postposition	<i>Hartmuts wegen</i>	possible/grammatical (Duden-Grammar 2009: 211; 972; Eisenberg 2013: 253)
ad-verbal		
	<i>wir gedenken Hartmuts</i>	possible/grammatical (Duden-Grammar 2009: 210; Eisenberg 2013: 253)

As the evaluations by contemporary grammars show, the *s*-marking of first names seems to be fully acceptable only in prenominal possessive constructions even though the Genitive Rule is violated (cf. fn. 20 and Gallmann, this volume).

In present-day German, an essential and much discussed difference between proper names and common nouns lies in the fact that names – above all (but

not exclusively, cf. (8c)) personal names – usually precede their head noun in ad-nominal constructions (so-called Saxon genitive, cf. (8a)–(8c)) which is rather marked in the case of common nouns (cf. (5b)). In addition, even female names are fully grammatical in this position (cf. (8b)) – we come back to this point in Section 4. The reversed order head noun > proper name is also possible (cf. (8d)) but underlies more restrictions such as animacy, complexity or the final sound of the name (cf. Peschke 2014 for a corpus study). Bare first names, which refer to human entities are often said to sound archaic – or even ungrammatical if the name ends with a sibilant (cf. (8e)) – in the postnominal position.

- (8) a. *Hartmut-s Lied*
 Hartmut-GEN? song
 ‘Hartmut’s song’
- b. *Hilde-s Auto*
 Hilde-GEN? car
 ‘Hilde’s car’
- c. *Berlin-s Sehenswürdigkeiten*
 Berlin-GEN? sights
 ‘Berlin’s sights’
- d. *die Sehenswürdigkeiten Berlin-s*
 the sights Berlin-GEN
 ‘the sights of Berlin’
- e. **das Fahrrad Matthias’*
 the bike Matthias.GEN
 ‘Matthias’s bike’

As already mentioned above, a masculine personal name accompanied by a determiner in a postnominal genitive construction tends to be zero-marked (but *s*-marking is also grammatical) whereas feminine names are only grammatical if they are unmarked in such a configuration (cf. Section 2.1).

Concerning ad-adpositional genitive constructions, Gallmann (1990: 275) considers inflected personal names after prepositions such as *wegen* ‘because of’ as stylistically marked (cf. (9a)). Here he recommends using the uninflected name instead (cf. (9b)). Fuß (2011: 26) however, who is more radical in his acceptability judgement, declares proper names after genitive prepositions – by only considering the inflected variant – as generally ungrammatical. According to him, *s*-marked names can only occur with postpositions as in (10) – a configuration, which in turn is archaic in Gallmann’s (1990: 275) opinion.

- (9) a. *wegen Hartmut-s*
 because_of Hartmut-GEN

- b. *wegen* Hartmut Ø
 because_of Hartmut.GEN/DAT¹⁶

- (10) *Hartmut-s wegen*
 Hartmut-GEN because_of
 'because of Hartmut'

Ad-verbal genitives with proper names – as well as common nouns – are both rather unusual in present-day German. But if a proper name functions as a genitive object it may occur uninflected – a recent development that does not apply for common nouns either, as Fuß (2011: 23–24) notes.

Apparently, the judgements regarding the usage and inflection of proper names in the described syntactic configurations strongly diverge. The only undisputed morphosyntactic context for the singular *s*-marker seems to be the prenominal possessive construction. Now, a corpus study should provide data about the actual use of inflected personal names. This will show how far the deflexion of personal names has come.

3.1.2 Corpus data (DECOW)

The corpus selected for the investigation was the German corpus of DECOW2012, consisting of more than 9 billion tokens (cf. Schäfer & Bildhauer 2012). The corpus is based on web data and contains also “quasi-spontaneous” language use (Schäfer & Bildhauer 2012: 493). In this point the selected corpus differs from the majority of other written-language corpora, which mainly consist of edited texts. The chosen corpus thus allows us a comprehensive description of present-day German.

Searching for proper names is quite difficult. Admittedly, most POS-tagged corpora provide a named-entity annotation, but the annotation is by no means reliable. The search was thus based on a list of 119 first names selected on the basis of certain criteria.¹⁷ The listed names were selected for gender (m/f, note that there are two separated inventories in German), the number of syllables (1 to 4), the name's frequency within the corpus (< 1,000, 1,000–10,000, > 10,000), as well as the type of the final sound (vowel, sonorant or obstruent, with names ending in <s, z, x> excluded). So an effect of one of these criteria on the morphosyntax could be ruled out. Since the chosen first names occur more or less frequently, it

16. It is not clear in those cases whether the regarding preposition governs the dative, which is not marked on names, or whether we have genitive-*s* omission. The result is the same in both cases: the proper name shows no inflectional case marker.

17. I would like to thank Roland Schäfer for compiling the corresponding search script.

was sufficient to only consult the sub-corpus DECOW2012–00 which consists of approximately 1.2 billion tokens.

I searched for all above-mentioned syntactic configurations containing either the inflected or the uninflected variant of one of the listed first names. In terms of ad-adpositional as well as the ad-verbal genitive constructions the search was not POS- but lexeme-based.¹⁸ Table 6 gives an overview of the absolute frequencies of the names in the different genitive(-like) phrases as well as their inflectional behaviour.

Table 6. The syntactic distribution of first names in genitive-like phrases in DECOW 2012–00 (*n* = 20,452)

		Tokens	
Syntactic configuration	Example	with -s	without -s
ad-nominal			
prenominal	<i>Uwes Ideen</i>	16,326	0
postnominal (without det.)	<i>die Ideen Uwes</i>	3,303	0
postnominal (with det.)	<i>die Ideen des klugen Uwe(s)</i>	26	507 (369 m 138 f)
ad-adpositional			
with preposition	<i>wegen Uwe(s)</i>	5	176
with postposition	<i>Uwe(s) wegen</i>	2	1
ad-verbal			
genitive objects	<i>wir gedenken Uwe(s)</i>	1	1

The corpus data show that the *s*-marker on first names occurs almost entirely in adnominal possessive constructions – more frequently pre- than postnominal. In all the other syntactic configurations first names are unmarked or do not occur at all.

It is not surprising that first names seldom if ever function as genitive objects in the web corpus data, since genitive objects are uncommon in present-day German in general. Yet the occurrences of first names preceding a postposition

18. The following genitive governing verbs and prepositions were used:
Verbs: *jemandes gedenken* ‘to commemorate sb.’, *sich jemandes erinnern* ‘to remember sb.’, *sich jemandes erbarmen* ‘to have compassion for sb.’, *sich jemandes annehmen* ‘to befriend sb.’.
Pre- and/or post-positions: *angesichts* ‘considering’, *anhand* ‘by means of’, *anstatt* ‘instead of’, *anstelle* ‘in place of’, *aufgrund* ‘based on’, *mithilfe* ‘with the aid of’, *trotz* ‘despite’, *statt* ‘instead of’, *unweit* ‘not far from’, *wegen* ‘because of’, *zugunsten* ‘in favour of’, *zulasten* ‘at the cost of’.

are also close to zero. Here a comparison with common nouns in DECOW2012–00 shows that nouns that are not names occur as *s*-marked relatively frequently with the postposition *wegen* ‘because of’ (3,528 instances) as in *des Geschmack(e)s wegen* ‘because of the taste’.

According to the DECOW-data, proper names typically occur with prepositions rather than with postpositions, though if they do, in 97.2% of the cases the name is not *s*-marked, as in *es ist wegen David* ‘it is because of David’. Here we either have instances of genitive-*s* omission or a change regarding the case government of the preposition from the former genitive towards the dative, which is no longer marked on proper names. For *wegen* ‘because of’ – the most frequent preposition in my data – a general shift towards dative government is observable in present-day German (cf., e.g., Lindqvist 1996). Yet a query in DECOW2012–00 shows that government of the genitive is even more frequent in quasi-spontaneous language in the case of common nouns (genitive: 22,472 vs. dative: 16,579). Regarding prepositional phrases with *wegen* where the governed common noun¹⁹ – as well as proper names – occurs without a determiner (e.g. *wegen Todesfall(s)* ‘because of death’) the proportion is quite different. In a manually analysed sample of 600 PPs with *wegen* at least 17.7% of the common nouns are genitive-marked. If we exclude the feminine nouns (56.1%), which never show a genitive marker, the amount of (e)*s*-containing nouns vs. Ø-marked masculine and neuter nouns amounts to 40.3%.²⁰

If a first name occurs with a determiner in a postnominal genitive phrase it is unmarked in over 95% of the cases. Even if we leave the never inflected feminines out, the *s*-marking on masculine names is an exception with only 6.6%. The reverse scenario is observable for non-proprietary nouns in postnominal genitive phrases.²¹ In a DECOW2012–00 sample of 240 genitive phrases in which the non-proprietary noun is accompanied by a determiner and a modifier as in the query with

19. Only nouns in the singular were counted since the genitive is ungrammatical with bare nouns in the plural (**wegen Tumult-e* ‘because.of riots-GEN.PL’ (cf. Gallmann, this volume).

20. The lower number of *s*-marked nouns in examples without a determiner can be explained with Gallmann’s (in this volume) *Omission Rule*: if the noun – instead of an accompanying word, e.g. the determiner – is the main feature bearer it tends to remain uninflected. The conflicting *Visibility Condition* (genitive case must be visibly marked) explains the 17.7% *s*-marked cases, which Gallmann, this volume, rates as stylistically marked. *Omission Rule* and *Visibility Condition* are parts of the *Genitive Rule*, which Gallmann formulated for German (c.f. also Duden-Grammar 2009: 968). Note that proper names in possessive -*s* constructions can be main feature bearers and -*s* marked at the same time and thus don’t follow the predictions of the *Genitive Rule*.

21. I want to thank Christian Zimmer for providing me with his data.

the first names (e.g. *der Bonus* [*eines existierenden Gottes*] ‘the bonus of an existing god’) 94.6% of the nouns show a genitive marker. Table 7 outlines the divergent inflectional behaviour of names and nouns in the two described syntactic configurations: while names in genitive phrases are characterized by deflexion, non-proprial nouns tend to be inflected, even though this violates the Genitive Rule in some cases (cf. fn. 20 and Gallmann, this volume).

Table 7. The divergent inflectional behaviour of proper names and common nouns in PPs and genitive DPs

	Personal name		Common noun (M/N)	
	-s	-Ø	-(e)s	-Ø
with a preposition <i>wegen Uwe</i> <i>wegen Todesfall(s)</i>	2.8%	97.2%	40.3%	59.7%
post nominal (with det.): <i>das Auto</i> <i>des netten Karl</i> <i>des netten Mannes</i>	6.6%	93.4%	94.6%	5.4%

In sum, the data illustrate that the genitive marker *-s* is mostly dropped on personal names in all ‘real’ genitive phrases. Only in adnominal possessive phrases the *-s* is absolutely stable even though the Genitive Rule is violated.²² The question now arises of whether the *-s* in these configurations is still a real inflectional case marker. Nearly all Germanic languages (except for Afrikaans and Icelandic; for Faroese see Petersen & Szczepaniak, this volume) have such a possessive *-s* construction with once-only marking on the right edge of the possessor, whereby mostly the head noun is the rightmost element within the possessor phrase. Especially for English, which allows for so-called ‘group genitives’, where postmodification of the possessor head noun is possible (e.g. *[[the man] over there]’s hat*), these possessive *-s* constructions are well-studied. But even for the English *’s* possessives

22. Note that German also provides two periphrastic possessive constructions, in which personal names can remain unmarked: The possessive dative construction (i) and the *von*-periphrasis (ii):

- (i) a. *d-em Hartmut sein Auto*
the-DAT Hartmut his car
‘Hartmut’s car’
- b. *das Auto von Hartmut*
the car of Hartmut
‘the car of Hartmut’

These constructions are especially frequent in spoken language and in colloquial German.

there is an ongoing discussion about the theoretical status of 's, i.e. whether it should be considered as an affix, a clitic or something in between (cf. Anderson 2013; Börjars et al. 2013; and Hudson 2013 for a recent discussion).

Morphosyntactic studies on German -s possessives (note that they are associated with the terms 'Saxon genitive' or 'prenominal genitive' in the German tradition) are no less controversial. However, for German the focus has been less on the theoretical status of -s than on the theoretical status of the possessor. In recent studies the status of -s as a proper genitive inflective has been challenged (cf. Fuß 2011; Plank 2011; or Scott 2014). A recent study on the semantics of proprial prenominal possessors gives additional evidence for the view according to which -s is analysed as a possessive marker (cf. Peter 2015). In the next section, I will briefly discuss two proposed analyses for German -s possessives, before providing empirical data for the hypothesis that the s-marker is no longer a regular case marker in present-day German.

3.2 Proposed formal analyses for German possessive -s

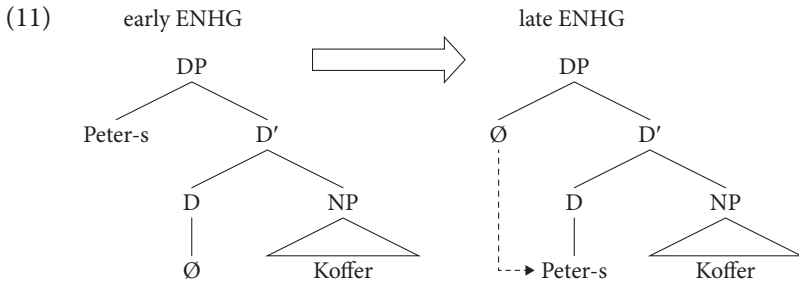
First of all, it is important to keep in mind that in present-day German the position of the possessor in possessive -s constructions is highly restricted in comparison with the other Germanic languages – especially English and Mainland-Scandinavian. Only determiner-less proper names – and kinship terms that function as proper names – are fully grammatical possessors.²³ In contrast, postnominal genitives can be complex phrases with concordial case marking. In the literature we find several approaches that deal with this asymmetry in different ways.

The proposed formal analyses for -s possessives that we find in the recent literature can essentially be divided into two approaches. On the one hand there are approaches that categorize proper names in prenominal possessive constructions not as nouns, but as possessive adjectives (cf. Lindauer 1998) or possessive determiners, sometimes even as D°-heads (cf. Demske 2001; Hartmann & Zimmermann 2003). On the other hand scholars such as Weiß (2008) or Fuß (2011) analyse German possessive -s in a similar way to the English ones, whereby the -s marker is interpreted as a clitic, which fills the position of the D°-head.

Regarding the first approach, Demske (2001) claims that there has been a semantically driven change followed by a formal reanalysis during the Early New

23. While agreeing phrasal prenominal genitives can be seen as remnants of a previous stage of German and are thus stylistically highly marked or even ungrammatical (see Section 3), newly arising possessors (with once-only marking) consisting of an s-less possessive article and an s-marked kinship term (in the widest sense) e.g. *mein Bruders Hamster* 'my brother's hamster', are possible, but are instances of substandard usage. I will return to these possessors below.

High German period. First, genitive phrases referring to non-human entities shifted towards the postnominal position. In a second step, proper name possessors, which formerly filled the specifier position of the DP have been reanalysed as D°-heads (cf. (11)), cited after Fuß (2011: 34). However, in the postnominal position proper names still form part of the nominal system.



Since there is only one D°-position, the possessor cannot co-occur with other determiners – a point that seems quite convincing, since in present-day German the default possessor is minimally complex, i.e. a one-word expression (cf. (12a)). The approach also predicts correctly that – after the reanalysis – only D-elements, i.e. proper names, possessive pronouns and article words, can fill the possessor position (cf. (12b)) and that these elements are distributed complementarily (cf. (12c)).

- (12) a. (**des netten*) *Peters Buch*
'(the friendly) Peter's book'
b. *Peters/sein/ein Buch*
'Peter's/his/a book'
c. **der/mein/ein Peters Buch*
'the/my/a Peter's book'

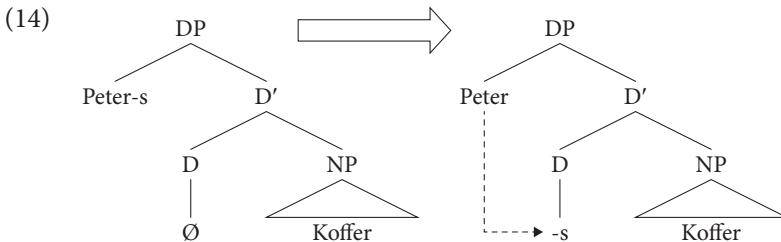
Though the analysis of proper name possessors as D°-heads appears convincing at first glance – not least because several restrictions within the DP can be explained by one formal change – there are some problems that come with it. First, the assumption of proper names as categorical hybrids with the respective categorization depending on the name's syntactic position (prenominal = D, postnominal = N) is conceptually problematic, as already mentioned by Fuß (2011: 34–35). Additionally, the analysis is too restrictive since newly arising *s*-possessors (cf. (13)) are not compatible with it.²⁴

24. Real genitive constructions with concordial case marking cannot be compared with possessive *-s* constructions (e.g. *des Lehrers größte Freude* 'the teacher's biggest pleasure'). These

- (13) a. [*Tom und Annas*] *Ideen*
 ‘Tom and Anna’s ideas’
 b. [*mein Bruders*] *Freund*
 ‘my brother’s friend’

Empirical studies (cf. Scott 2014, Section 4.2) provide evidence that constructions like those in (13) occur frequently in informal language. Thus, a formal analysis of German possessive *-s* must provide a solution for them.

Approaches where possessors are said to fill the specifier position of the DP thus seem more promising. Fuß (2011) provides an analysis for *-s* constructions according to which names are also in the prenominal position analysable as nouns. According to his approach the proper name was not reanalysed as D°-head while the status of the former genitive suffix *-s* changed. As in the development of the possessive marker in the history of English the German *-s* was reanalysed as a clitic marker in connection with proper names, according to Fuß (2011: 35–37), cf. (14).



In the proposed DP-structure, the article position D° is filled/blocked by the *s*-marker in present-day German. Thus, it is a logical conclusion that determiners and possessors are in complementary distribution. An advantage of this analysis is that we do not have to assume a hybrid status of proper names, since they fill the specifier and not the head position. Additionally, a possessive phrase with a feminine possessor and a masculine possessum must not be interpreted as feminine within the DP-framework (cf. Sternefeld 2008: 210 for this point of criticism). By analysing the possessive *-s* as D°-head we additionally do not have to assume empty heads, as e.g. Sternefeld (2008: 210) does. However, there is also criticism regarding the proposed analysis. Rauth (2014: 355) for instance remarks that analysing the *s*-suffix in D° provides no explanation of why postmodification of the possessor in German leads to ungrammaticality while in English group genitives are grammatical (cf. (15a) vs. (15b)), even though they are a marginal phenomenon (cf. Denison, Scott & Börjars 2010).

archaic sounding cases must be seen as remnants of a former system that mirrored the syntactic rules of an older stage. They are thus not a counterexample to Demske's (2001) analysis.

- (15) a. [*the man I met yesterday*]'s daughter
 b. *[*der Mann, den ich gestern traf*]'s Tochter

According to Fuß (2011: 36) there are syntactic selection restrictions that emanate from the D° head – restrictions that we do not have in English.²⁵

A more plausible explanation for the restrictedness of the possessor and the related diachronic shift of genitive attributes with determiners from the prenominal to the postnominal position is associated with the German ‘framing principle’. This functional ‘framing principle’ focuses on the development of numerous discontinuous structures in German and can be seen as one of the most important syntax-typological patterns and which has also influence on the morphology. According to Ronneberger-Sibold (2010a: 719) “the tendency of German for framing was a major conditioning factor in the typological divergence among the Germanic languages”. Framing generally means that there are two border-marking signals in a phrase. With the appearance of the first signal a hearer/reader can conclude that the component will most likely not be finished until the fitting second signal appears (cf. Ronneberger-Sibold 2010a: 722). The signals may but do not necessarily have to occur in a close structural relation to each other. However, common to all frames is the fact that the first element of a frame typically provides grammatical information while the second one typically gives lexical information.

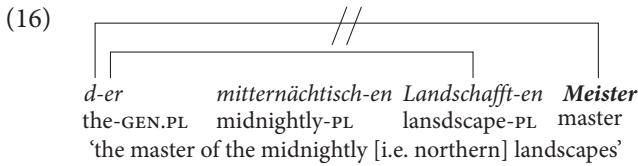
As Ronneberger-Sibold (2010b) points out, the nominal frame (consisting of a determiner or a preposition + noun) in present-day German must be seen as the result of several interacting changes and preservations regarding morphology and syntax.²⁶ The development of the genitive attribute is only one change associated with several other changes within the nominal domain (e.g. the position and inflection of adjectives, the inflection of determiners or the gender and number of the noun) which cannot be addressed here in detail. So, from a framing point of view, prenominal genitive attributes as they were still frequent in Early New High German, are rather problematic. As the example in (16)²⁷ illustrates there was no frame for the superordinate nominal phrase, meaning that the article does

25. A more severe shortcoming of this approach lies in the basic assumption that *-s* is a proper clitic in German: A morphological analysis shows that currently *-s* does not have this status (see Ackermann, in press, for a detailed analysis).

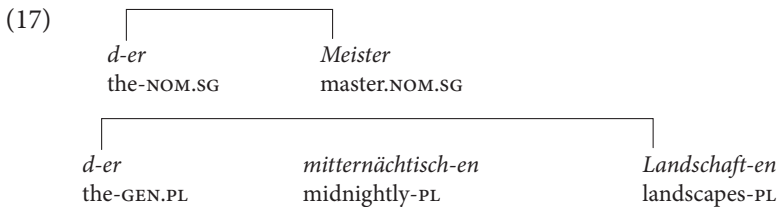
26. Note that the nominal frame is only one of three main frame types. Besides the nominal frame there is the main clause frame (auxiliary/modal verb + infinite main verb, finite verb + separable particle or a linking verb + adjective/noun) and the subordinate clause frame (conjunction/relative pronoun + verbal complex).

27. The example from von Lohenstein 1689 is cited after Ronneberger-Sibold (2010b: 99).

not agree with the head noun (bold).²⁸ With the general expansion of the nominal frame, such structures became unusual and were hence difficult to parse. The readers/hearers expected the article to open a frame that was closed by the head of the genitive phrase (the noun *Landschafften* in (16)).



Thus, the initial determiner could lead to a ‘garden-path’ interpretation, since the frame-closing element *Landschafften* suggests the end of the frame whereby the genitive phrase could be wrongly interpreted as a genitive object or as an attribute of a preceding head noun. The newer structure with postponed genitive attributes fits much better into the framing structure of German (cf. (17)).



As Ronneberger-Sibold (2010b: 100) mentions in a footnote, there was no need for **determinerless** proper names to move behind the head noun.²⁹ Especially when the older serialisation fits better to the typical OV-structure of German (the dependent element precedes the governing element). Perhaps the special status bare names gained in prenominal genitive attributes after all other genitive attributes were postponed led to a reinterpretation of the former genitive marker. At the time when the possessor position was (almost) completely restricted to determinerless names (19th century), proprial inflection was degraded and the remaining *-s* had already become a superstable marker (cf. Ackermann, in press). As a consequence of this, new possessive *-s* constructions could begin to develop, that can be analysed as proposed by Fuß (2011). In the light of this framing theory it is understandable why the possessor position in languages such as English, which

28. The co-occurrence of two determiners at the beginning of a nominal frame as in *diese des Papagoyens Worte* ‘these words of the parrot’ was unusual (cf. Ronneberger-Sibold 2010b: 99).

29. In contrast, proper names with a (primary or secondary) determiner moved behind the head noun as all complex DPs did.

does not have such a high-ranked framing principle (and thus shows no real case or concord within the DP/NP), has never been restricted to bare proper names. As a look at the development of the English group genitive in the next section will show, the observable changes are nevertheless surprisingly similar to those in the history of the German possessive *-s*.

4. The status of *-s* – genitive inflection or clitic marker?

German *-s* possessives are often compared with their counterparts in other Germanic languages. However, it must be said that simple connections cannot be made in view of the different systems that have developed even though the properties were similar in earlier stages. In the following, I will first briefly outline the developments in English – where possessive *'s* is least restricted – as basis of comparison before I provide German diachronic and synchronic data in favour of a non-genitive analysis of the *s*-marker.

4.1 English possessive *'s* constructions

As already mentioned, present-day English has a construction in which possession is marked only once by the bound invariant marker *-s* while the possessor precedes the possessum.³⁰ Even though the status of *'s* is controversially discussed, it is not usually described as a proper case marker but rather as a right edge marker or clitic. Denison, Scott & Börjars (2010) show that for the majority of *'s* possessives the head noun is coincidentally the final element of the possessor phrase (cf. (18a)). Besides this, in English postmodification of the head noun is also possible – although rare – in possessive phrases, i.e. the head noun is not the rightmost element. In such cases the possessive marker may attach on a non-head element of any word class (cf. (18b)).

- (18) a. *the man's voice*
b. *the man over there's voice*

In line with Jespersen's (1894) terminology, examples such as (18b) are commonly referred to as 'group genitives' or more recently 'phrasal genitives' (Rosenbach 2002) or 'POSTMOD-POSS' (Denison, Scott & Börjars 2010). According to one approach the *-s* marker developed from the possessive pronoun *his* (cf. Janda 1980). Another current approach says that the invariant marker *-s* developed

30. As in the German *von*-construction, possession can also be expressed by means of a preposition, i.e. *of*. Here we have the reversed serialisation of possessor and possessum.

from one of the genitive markers in earlier stages of English (cf. Allen 1997, 2003). In her diachronic studies Allen (1997, 2003) argues convincingly against the alleged pronominal source of possessive 's. For instance, 'separated genitives' (e.g. *adam is sune* 'Adam's son') had exactly the same distribution as the coexisting 's marker until the late 16th century. In addition, there were even examples with feminine possessor nouns with non-agreeing *his/is/ys* (cf. Allen 1997: 117–118).³¹ Thus, the separated genitive instead has to be interpreted as an orthographical variant, which was "particularly used with proper names" since their declination – particularly that of foreign ones – "had always presented difficulties" (Allen 2003: 12). This functional explanation supports the view that schema constancy also effected the declination of English proper names and is thus not just a German phenomenon.

According to Börjars et al. (2013: 145) the most common characteristics referred to when Old English *-(e)s* and present-day English possessive 's constructions are contrasted are:

- i. *(e)s* was one exponent in a paradigm, 's has only one form;
- ii. GEN in Old English was an agreement feature, 's is marked once only;
- iii. *(e)s* occurred on the head, 's occurs on the right edge of the phrase.

Allen (1997: 121), who examined the development of the group genitive in detail, mentions "that the transition from an inflection to a clitic which attached to the end of a NP was not made in a single step". The *-s* has undergone several stages of development and it is more plausible to assume that there is no clear dichotomy between affixes and clitics. Figure 1 gives an overview of the several "steps" the genitive marker made in order to become an invariant once-only marker.

As Figure 1 depicts, the developments linked with possessive *-s* had already started in the 12th century. Throughout the Old English period there was a decline in the case system where the dative and the accusative cases were lost. The genitive however preserved its function as a marker of possession (cf. Rosenbach, Stein & Vezzosi 2000: 184) and was still a case that was governed by verbs and prepositions. By the Early Middle English period the use of the genitive became more restricted since it was no longer governed by prepositions or verbs. At this time concord between the possessor noun and the other elements within the possessor phrase, which was obligatory in Old English, also began to decrease.

31. Even though in Early Modern English the use of an agreeing pronoun arises (which can be seen as a reinterpretation of the orthographical variant *his* (cf. Allen 2003: 18)), the separated genitive disappeared almost completely by the 18th century. So English has no such periphrastic construction as German or Dutch do.


Time	Development	Status of -s
Old English	– decline in the case system	
Early Middle English (1100–1350)	<ul style="list-style-type: none"> – marker always on the PossN – (e)s becomes superstable marker – no double-marking in appositions – genitive is no more governed by verbs and prepositions 	
Late Middle English (1350–1500)	<ul style="list-style-type: none"> – marker usually on PossN – variable marking in coordinations – first occurrences of group genitives – split genitives still occur 	
Early Modern English (since 1500)	<ul style="list-style-type: none"> – split genitives decrease – separated genitives become unusual – group genitives become more regular 	

Figure 1. The development of possessive -s from a genitive inflective to an invariant right-edge marker in English (cf. Allen 1997, 2003)

The -(e)s became a superstable marker by the end of the 14th century and was generalised to all noun classes, with some irregular forms persisting into the 15th century (cf. Allen 1997: 115, 120). In the early stages of the Middle English period, -(e)s only occurred on the head noun in a possessor phrase. The presence of so-called ‘split genitives’³² – where the postmodification of the s-marked possessor noun is placed after the possessum (cf. (19)) – also indicates that -(e)s was still a proper inflection at this time. In the mid 13th century separated genitives first appeared as orthographic but less frequent variants to -(e)s.

- (19) *God-ess Sune off heoffne* (c. 1200, Allen 1997: 115)
 God-GEN son of heaven
 ‘God of heaven’s Son’

However, in the 13th century the change of the genitive inflection towards a once-only right edge marker begins to develop. While in Old English both elements in an apposition had to be marked for genitive, we find appositions both with the old double marking (cf. (20a)) and with the new once-only marking (cf. (20b)) in early Middle English texts. According to Allen (1997: 123), this change was almost

32. I use this term in line with Rosenbach (2002) and Denison, Scott & Börjars (2010). Note that Allen (1997: 115) uses the term ‘combined genitive’, “since it combines an inflectional genitive with a prepositional one”.

concluded by the beginning of the 14th century and it can be seen as “the first step towards clitic status”.

- (20) a. *Daviþess kingess kinnessmann*
 ‘King David’s kinsman’ (Ormulum, Allen 2003: 10)
- b. *Upponn Herode kingess da33*
 ‘In King Herod’s day’ (Ormulum, Allen 2003: 10)

After concord in genitive appositions was lost, *-(e)s* could be attached only to the rightmost element in DPs/NPs which ended in a possessor noun. That means possession was marked only once, but the possessor phrase did not contain postmodification. While in Old English both possessor nouns in two coordinated phrases had to show a genitive inflection, in Middle English the situation became variable. Allen (1997: 121) gives two examples from the 14th century, the first showing the older type with double marking (cf. (21a)) and the second reflecting the newer type with once-only marking on the rightmost possessor (cf. (21b)). In present-day English the newer type has become prevalent (mainly when the two NPs form a collective possessor).

- (21) a. *ikke manes & womanes saule* (Allen 1997: 121)
 ‘each man and woman’s soul’
- b. *god and þe virgynes sone Marie*³³ (Allen 1997: 122)
 ‘God and the Virgin Mary’s son’

The first – though in contrast to the split genitive rather rare – examples of group genitives can be found in texts of the late 14th century (cf. (22)).

- (22) *þe kyng of Fraunces men*
 ‘the king of France’s men’ (Trevisa, Allen 1997: 121)

However, such complex possessors of the earliest examples suggest that the DP/NP could be regarded as a title and thus as one (name) unit. According to Allen (2003: 11) “[i]t seems plausible that the group genitive of English started with this sort of treatment of names with more than one element as a unit for the purpose of inflection”. Overall, split genitives and the marking of the possessor noun rather than the right edge are more common than group genitives in the late Middle English period. This is why the *-(e)s* marker still has to be regarded as more affix-like at this time.

During the Early Modern English period the group genitive gradually ousts the split genitive completely (cf. Allen 2003: 18). However, the evidence for this most

33. This example shows also a split genitive.

important change regarding a clitic-like interpretation is controversial. Denison, Scott and Börjars (2010) show that the group genitive is rare and avoided even in present-day English and that it has not superseded the split genitive construction completely, since split genitives still occur in spoken language. They assume that “the evidence of ‘normal’ POSS-s constructions and split genitives indicates that POSS-s prefers to attach to the head of the possessor NP” (Denison, Scott & Börjars 2010: 557). Nonetheless, the possessive ’s has some right-edge properties in present-day English that distinguish it from the possessive -s construction in present-day German.

Against the backdrop of the development of possessive ’s in the history of English, I will now discuss diachronic and synchronic data regarding the genitive inflection of personal names in German. The results will show that there are many parallels between the two languages even though the development in German is less far advanced.

4.2 Synchronic and diachronic empirical data of German

As mentioned above, German still has a four-case system with concordial marking in the genitive. However, as depicted in Section 2, personal names have been subject to a change which has led to radical deflexion. Dative or accusative markers are no longer attached to personal names (in the standard language). Additionally, the genitive marker -s is often left out in ‘proper’ genitive contexts – or replaced by the non inflectionally-marked dative –, i.e. when the name is governed by a genitive preposition or functions as a genitive object (cf. Section 3.2). In present-day German, the occurrence of -s is almost entirely restricted to possessive -s constructions.

The paradigms in Section 2.2 show that the possessive marker -s on proper names developed from a variable case marker with allomorphy *-(e)n*, *-(e)ns* & *-(e)s* towards a uniform marker. This marker attaches even to feminine names, but only in possessive -s constructions. While the *s*-marking of masculine personal names in genitive phrases is infrequent but grammatical, the attachment of -s to female names is ungrammatical (in a singular reading of the name). It is important to note that in present-day German feminine common nouns are never *s*-marked unlike neutral and masculine ones. This oppositional case inflection of feminine and non-feminine common nouns is indeed becoming stronger diachronically (cf. Nübling 2008). As Zwicky and Pullum (1983) note, allomorphy that depends on morphological features such as [\pm feminine] is typical for inflectional elements while clitics tend to be invariant – like the possessive -s. The reduction of allomorphy and the spread of *-(e)s* to all noun classes was also the first important step towards an invariant edge located once-only marker in English.

The second big step of *-(e)s* towards a once-only marker in the history of English was the deletion of concord in genitive phrases. In this context, Allen (1997, 2003) points out the relevance of appositions where concord is removed very early. In present-day German, only the rightmost element within an apposition is *-s* marked if it functions as a complex possessor (cf. (23a)). If the same apposition occurs in a genitive phrase with a determiner, we still have once-only marking within the apposition, but it is the head noun and not the rightmost noun to which the *-s* attaches (cf. (23b)).

- (23) a. *FC Bayern-Trainer Pep Guardiola-s Plan*
 FC Bayern trainer Pep Guardiola-poss plan
 b. *der Plan d-es FC Bayern-Trainer-s Pep Guardiola*
 the plan the-GEN FC Bayern trainer-GEN Pep Guardiola
 ‘FC Bayern trainer Pep Guardiola’s plan’

A pilot corpus study in the DTA (*Deutsches Textarchiv*)³⁴ shows that once-only marking in appositions has not always been the default case in German. In appositions with the appellative *König* ‘king’ followed by any personal name there was strong variation during the 17th century regarding the attachment of the genitive marker (cf. (24)).³⁵

- (24) a. *König-s Meleander-s Tochter* [= double marking]
 ‘King Meleander’s daughter’ (Barclay_Argenis 1626: 1097)
 b. *König-s Frotto-Ø Liebe* [= only APP is marked]
 ‘King Frotto’s love’ (Lohenstein_Feldherr Bd.1 1689: 1387)
 c. *König-Ø Philipp-s Sohn* [= only name is marked]
 ‘King Philipp’s sun’ (Schiller_Dom Karlos 1787: 103)

34. The DTA corpus as of 2014 consists of ca. 1300 digitalised texts (ca. 100 million tokens) from the 17th–19th century. The distribution of different text types is relatively balanced (11.6% newspaper, 31.9% fiction books, 16.7% functional literature and 39.8% scientific texts). The examples in (23) are taken from this corpus. For further information: <www.deutsches-textarchiv.de>.

35. As Example (23) shows, whether *-(e)s* is attached to the appellative or the proper name in present-day German depends on the presence of a determiner. Thus, I only considered determinerless appositions that function as prenominal genitive attributes. I searched for the lemma *König* and the POS-tag *NE* followed by a noun. Since prenominal genitive attributes are not currently restricted to determinerless nouns, I had to check the results manually.

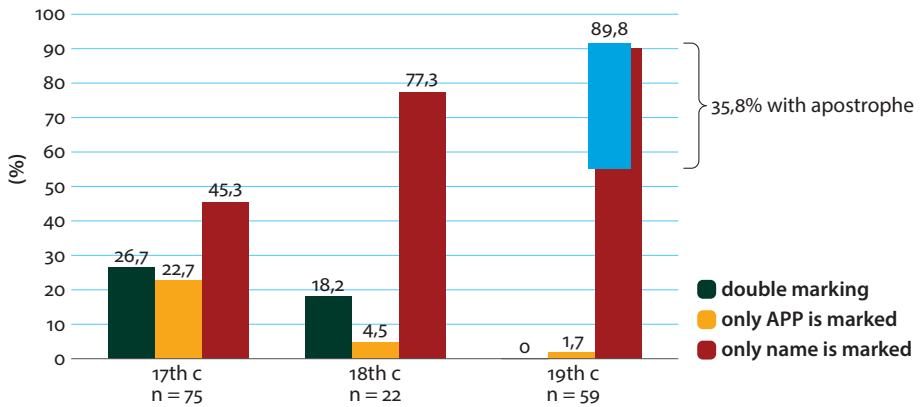


Figure 2. Genitive marking in prenominal appositions with the appellative *König* ‘king’ and a personal name from 17th–19th Century in %³⁶

Figure 2 shows that double marking (cf. (24a)) is no exception in the 17th century. It is even possible to just mark the appellative for genitive (cf. (24b)). During the 18th century once-only marking on the name (cf. (24c)) ousts the other variants and becomes the default in the 19th century.³⁷

Another notable fact is the increased emergence of apostrophes at the time when once-only marking on the right edge prevailed. These apostrophes could be interpreted as morphographic elements, which means that they mark the border between a name and its inflectional affix (cf. Nübling 2014). Thus, separating the -s through an apostrophe reflects the lower degree of fusion between the base and the edge located marker orthographically.

In English, another early step in the reanalysis of the genitive inflection as a phrase marker was the deletion of double-marking in two coordinated phrases. According to the Duden-Grammar (2009: 211) once-only marking on the second of two coordinated names is occasionally possible in present-day German (as in (25)). Plank (2011: 275) mentions that this omission of -s on the first of two coordinated names supports the analysis of the -s on the second conjunct as an enclitic marker.

36. The values do not always amount to 100% since the rare instances with no marking are not included in the figure. Zero marking of both the appellative and the name occurs primarily when the name ends in /s/.

37. In the 19th century double-marking in appositions which are accompanied by a determiner was lost too, but in favour of attaching the -(e)s to the appellative.

- (25) *Brad Pitt und Angelina Jolie-s Hochzeit*
 Brad Pitt and Angelina Jolie-poss wedding
 'Brad Pitt and Angelina Jolie's wedding'

In order to assess the status of the *s*-marking in close coordinations with two personal names empirically I collected data via a cloze test. I asked the participants to fill the gaps in 16 sentences with one of the word pairs I provided in a box (e.g. *Ulla und Anne*; *Jakob und Karin*; etc). Besides nine filler sentences there were seven sentences, which provided a possessive context (cf. (26)).³⁸

- (26) *Ich würde gerne zu _____ Tanzvorführung gehen.*
 'I would like to go to _____ dance performance.'

The aim of the investigation was not clear to the participants, since they thought it was a linguistic investigation concerning gender. 28 first year students ($f = 19$, $m = 9$; mean age = 22.2 years; all native speakers of German) participated in the test and generated 176 relevant phrases. The results depicted in Figure 3 show that the *s*-marking in close coordinations varies.

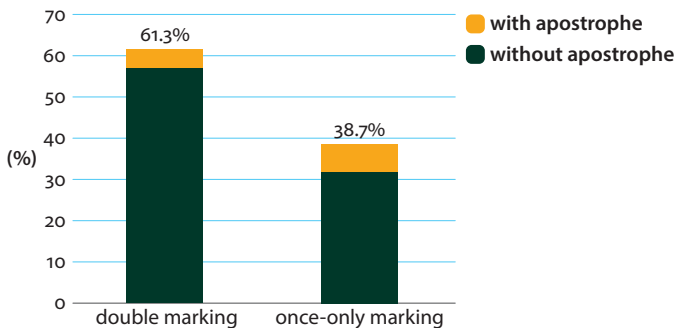


Figure 3. The attachment of *-s* in close coordination with two first names ($n = 176$)

Even though double marking prevails with 61.3%, the omission of *-s* from the first conjunct is not exceptional (38.7%). Interestingly, the possessive *-s* is separated through an apostrophe more often when it is only attached to the rightmost possessor (17.7%) than in the case of double marking (6.5%).³⁹

38. For all test items the context supported a reading of the two coordinated names as a collective possessor. Otherwise once-only marking is questionable, if possible at all. This applies also to languages in which the development of the group genitive is more advanced than in German (cf. Norde 2013: 302 for Swedish data).

39. A χ^2 -test shows that this difference is significant ($p < 0.05$).

In English, the last important step in the development of the group genitive was that *-(e)s* did not have to occur on the head of the possessor phrase, but could be only attached to the rightmost element of the phrase. As already mentioned, the first examples of group genitives in texts from the late 14th century show possessors, which can be regarded as titles, i.e. name units. This is why Allen (2003: 11) suggests that complex proper names could have been the starting point for the development of group genitives. Currently, in German this variation can be observed with the *s*-marking of complex (historical) proper names with the structure first name + postmodification such as *Walther von der Vogelweide*. *Von der Vogelweide* is a medieval byname which refers to the namebearers dwelling, and not a family name. According to the Duden-Grammar (2009: 989) the postmodification *von der Vogelweide* (literally ‘of the bird meadow’) is treated as a local attribute and thus the (last) first name has to be inflected (cf. (27a)) – an inflectional pattern that was already the default case for noble names with *von* in the 18th century (cf. Stutz 1790: 130). If the *von* phrase is part of the family name, the *-s* occurs on the rightmost element (cf. (27b)) as in all complex names with the structure first name + family name since the 18th century.⁴⁰ But in cases of doubt, i.e. where it is not clear whether the name is a by- or a family name, the *-s* can only be attached to the rightmost element in historical complex names (Duden-Grammar 2009: 989, cf. (27c)).

- (27) a. *Walther-s von der Vogelweide-Ø Gedichte*
 Walther-GEN of the bird.meadow poems
 b. *Heinrich-Ø von Kleist-s Gedichte*
 Heinrich von Kleist-POSS poems
 c. *Wolfram-Ø von Eschenbach-s Gedichte*
 Wolfram von Eschenbach-POSS poems

On the basis of a questionnaire study Zifonun (2001) shows that right-edge marking is acceptable to most informants if the head noun and its postmodification can be interpreted as a complex personal name. I replicated Zifonun’s (2001) acceptability judgement task with a more differentiated (seven point) scale and the results show that to my 28 informants overall right-edge marking is also more acceptable than head-marking (cf. Table 8).

40. Ackermann (2014) shows that this pattern only gained acceptance in the 18th century. In earlier periods all components of a personal name could be inflected in the genitive (first name-GEN + family name-GEN). Here, too, double-marking was lost.

Table 8. The acceptance of postmodified possessor nouns in present-day German

	Zifonun (2001) <i>n</i> = 53		my investigation <i>n</i> = 28
	fully acceptable/ okay	dubious/ fully unacceptable	1 = fully unacceptable 7 = fully acceptable
[first name + byname]s N (<i>Walther von der Vogelweides</i>)	72%	28%	4.79
[first name]s [byname] N (<i>Walthers von der Vogelweide</i>)	19%	81%	2.75
[first name + prep. attribute]s N (<i>Anna aus Berlins</i>)	8%	92%	1.8
[first name]s [prep. attribute] N (<i>Annas aus Berlin</i>)	4%	96%	1.1

However, as the results in Table 8 show, right-edge marking only seems to be possible if the postmodification is at least partially onymic like the attributive byname *von der Vogelweide*. If the respective PP does not form a name unit with the head noun as in [*Anna aus Berlin*]s *Sprache* ‘Anna from Berlin’s language’ it is unacceptable in the possessor position. In this case it is also ungrammatical (and less accepted than right edge marking) to attach the *-s* to the head (*Anna*) if the possessor occurs prenominal. So, it is obvious that the *-s* is not yet the syntactically free element as it is in present-day English, though the right edge-marking of complex proper names could be seen as the starting point for non-head marking as in the history of English.

Another relevant development of *-s*, which leads to further syntactic change in informal present-day German has recently been described by Fuß (2011: 38), Scott (2011: 63–64) or Scott (2014: 284–292). Within these nascent developing – and not yet fully grammatical – possessor phrases the *-s* is still attached to the head noun but the head noun no longer needs to be a proper name. It can be a noun of any gender which is accompanied by a possessive determiner (cf. (28)).

- (28) *mein freund-s Vater arbeitet fuer microsoft* (DECOW2012–00)
 my friend-poss father works for Microsoft
 ‘my friend’s father works for Microsoft’

According to Scott (2011: 64) the possessors in those ‘extended’ possessive *-s* constructions underlie a semantic restriction: “all feature nouns denoting either family members or someone close to the person who produced the construction”. Fuß (2011: 38) mentions that these possessors have to be kinship terms in the widest sense and always denote [+ human] entities just like personal names do, which

prototypically occur in the possessor position. Both authors also mention that “[t]he phenomenon appears to be restricted to informal online communication such as chat forums” (Scott 2011: 63) and oral communication. Note again that not all and perhaps only very few speakers of German would accept this pattern as wholly acceptable.⁴¹ Scott (2014: 284–285) gives the following definition for the nascent possessive -s constructions (reproduced here as 29):

- (29) [[$[NP_{\text{possessor}}]$ s] $[NP_{\text{possessum}}]$]
 $NP_{\text{possessor}}$ = a proper name of any gender (including kinship terms used as names)
 $NP_{\text{possessor}}$ can include postmodification of the head noun iff. the whole noun phrase is established as a unit
 $NP_{\text{possessor}}$ can include an inflectable lexeme (a determiner or an adjective) before the head noun iff. the construction is used in informal online communication and the whole noun phrase is established as a unit
 $'NP_{\text{possessor}}$ possesses $NP_{\text{possessum}}$ (in a broad sense)'

Scott (2014: 284–292) demonstrates that kinship nouns in combination with the possessive determiner *mein* ‘my’ occur in larger numbers than one might expect.⁴² Regarding the inflection of the possessive determiner there is a great deal of variation: the inflection can relate either to the possessor (and the possessum) as in (30a) or – less frequently – the possessum noun (cf. (30b)), which may be attributed to the fact that these complex possessors are new and thus not yet established.

- (30) a. *bei mein-er Mama-s Garten (Wohnung)*
 at my-DAT.FEM mother-POSS garden.DAT.MASC (flat.DAT.FEM)
 ‘at my mother’s garden (flat)’
 b. *mit mein-en Bruder-s Daten*
 with my-DAT.PL brother-POSS data.DAT.PL
 ‘with my brother’s data’

Scott’s (2014: 290) interpretation for extended possessive -s constructions is that

[t]hrough repetition, a noun phrase with the structure [possessive determiner + acquaintance noun] can become entrenched as a name for a particular referent. Once a noun phrase such as *mein Vater* ‘my father’ or *meine Mutter* ‘my mother’ (or, for that matter, *mein Chef* ‘my boss’ or *meine Lehrerin* ‘my teacher.FEMALE’) has been used sufficiently often to denote a particular individual, it is treated as a name (or, at least, as an element close in nature to a name) for that individual.

41. Further studies that include possible interferences with English or youth language have to clarify the status of these new constructions.

42. Unfortunately, Scott’s (2014) data do not reveal any information about the frequency of the extended possessive -s construction, since he extracted them from <google.de>.

This explanation does not explain why phrases like *meine Mutter* ‘my mother’ are interpreted as names depending on their syntactical position, i.e. why they should be analysed as complex names in prenominal possessive constructions and as regular DPs/NPs in postnominal genitive phrases. For me, an analysis that explains the occurrence of extended possessors by the reanalysis of *-s* and the depletion of selection constraints for the possessor position is more convincing (cf. Fuß 2011: 38). After the *-s* became a superstable marker in the inflectional paradigm of proper names, concord was removed. Thus the *-s* became a once-only marker in possessive phrases with complex proper name possessors, such as close appositions, titles or two coordinated names. Beginning with the right-edge marking of proper names in the possessor position, occasionally non-proprial possessors can fill this slot now. These prototypically denote [+human] entities which reflects the cross-linguistic tendency according to which animate possessors usually precede the possessum (cf. Zifonun 2005: 47, Rosenbach 2008, O’Connor, Maling & Skarabela 2013). However, instances of [-human] (cf. (31)) and even [-animate] nouns (cf. 32) can already be found in discussion forums. These instances suggest that the use of extended possessors is currently expanding.

- (31) *mein kater nuckelt an meine katze-s hals und alles*
 my tom sucks at my cat-POSS neck and everything
*is klitschenass*⁴³
 is dripping wet
 ‘my tom sucks at my cat’s neck and everything is dripping wet’
- (32) *mein Handy-s Bildschirm ist 3-mal beschädigt worden*⁴⁴
 my mobile-POSS display is 3-times damaged was
 ‘my mobile’s display has been damaged three times’

As Scott (2014: 292) mentions, the extended possessive *-s* construction “is no more or less clitic-like than its prototypical variant” since in German the head noun of the possessor phrase must be the rightmost and thus *-s* marked element. The last step by which the *-s* marks the rightmost element in a possessor phrase that can be a lexeme of any word class, has not (yet?) been taken in German. Figure 4 gives an overview of the important changes of the German *-s* marker from proper genitive inflection towards an invariant once-only marker.

43. <<http://www.gutefrage.net/frage/mein-kater-nuckelt-an-meine-katzes-hals-und-alles-is-klitschenass-wieso-macht-der-das->> (11 February 2017)

44. <<https://de.answers.yahoo.com/question/index?qid=20110421020016AAd8HJI>> (11 February 2017)

Time	Development	Status of -s
Early New High German (1350–1650)	<ul style="list-style-type: none"> – paradigmatic deflexion in the proper name paradigms 	
Early Modern German (1650–1900)	<ul style="list-style-type: none"> – marker always on the PossN – -s becomes a superstable marker – double-marking in appositions is removed – syntagmatic deflexion: -s omission on names in postnominal genitive phrases 	
Contemporary German	<ul style="list-style-type: none"> – marker usually on PossN (but right edge marking is possible on complex names) – further syntagmatic deflexion: -s omission on names that are governed by verbs and preposition – variable marking in close coordinations – new extended possessive -s constructions arise (with non-propral possessor nouns) 	

Figure 4. The development of possessive *-s* from genitive inflection to an invariant once-only marker in German

The overview shows that possessive -s in German developed later than in English. Since German still has a case system and the important framing principle, the -s marker is more restricted than its English counterpart, though has clearly also undergone change.

5. Conclusion

In this paper, I have sought to show that the German pronominal genitive is better described as a possessive construction in the widest sense. In comparing the developments in the history of the English -s marker with those in German, many parallels can be found. It is important to note that personal names play a central role in this change. I hope that the present study has shown that it is worthwhile to focus on proper names in grammatical studies, since once again personal names seem to assume a pioneering role in grammatical change.

A factor termed schema constancy causes deflexion in the proper name paradigms. While paradigmatic deflexion was mostly completed in the 19th century (-s has become a superstable marker within the proper name deflexion) the syntagmatic deflexion is still ongoing. On the basis of corpus data I have shown that in present-day German the syntagmatic deflexion is more advanced than initially

thought. The results show that the *-s* marker only occurs frequently in the possessive *-s* construction. Thus, we have an invariant marker that develops towards a once-only marker since concord is removed systematically in possessor phrases. Nascent extended possessive *-s* constructions, where the *-s* marks the rightmost element, show that the possessor can be more complex than a bare proper name – as long as the rightmost element is the head of the possessor phrase. Real post-modification of the possessor head noun is not (yet?) possible in German, yet also a marginal phenomenon at best in present-day English (cf. Denison, Scott & Börjars 2010).

There is an ongoing discussion about the clitic- or affix-like status of *-s* in other Germanic languages where the development of *-s* is more advanced. The German data have shown that the possessive *-s* marker finds itself in the middle of a development process, making its categorical status even fuzzier. In accordance with Börjars et al. (2013: 146) I think that it is rather appropriate to “recognise that affix and clitic are idealised, ‘pure’ categories and that the behaviour of most bound elements will be messier than that”.

Another often-discussed question in the context of possessive *-s* constructions is whether the development of *-s* can be seen as an instance of degrammaticalisation. While Norde (2001: 247) regards possessive *-s* in English, Swedish, Danish and Norwegian as “the most illustrative example of degrammaticalization in Germanic”, I think German possessive *-s* can at most be described as *degrammaticalization in progress* if at all. For instance Börjars et. al (2013: 145) argue that none of the changes the *-s* marker went through in English – where the situation is least ambiguous – can be described as degrammaticalization (for details see Ackermann, in press).

Furthermore, the categorical status of personal names has to be addressed on a backdrop of the presented findings in future studies. Fuß (2011), who argues for a clitic status of possessive *-s*, sees one advantage of his analysis in the fact that proper names in prenominal possessive constructions can still be seen as nominal elements. However, the present morphosyntactic investigation shows once more that proper names – especially personal names – are progressively drifting away from common nouns, as Plank (2011) and Nübling (2012) have already asserted.

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Yiddish possessives as a case for genitive case

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Yiddish is standardly characterised as a language with a three-case system, differentiating between nominative, accusative and dative. Possessor noun phrases that occur before the possessum appear to be marked by dative and an additional formative *-s*, which attaches to the head noun at the right edge of the possessor phrase. This article presents evidence for considering the possessive marker part of the exponence of genitive case, and thus, for revising the description of the Yiddish case system. The arguments given concern, on the one hand, the morphosyntactic status of the possessive marker and, on the other, the fact that, upon closer inspection, the nominal with which the possessive marker is combined is not identical with a noun phrase case-marked for dative.

1. Introduction

If Yiddish is the ‘archetypical “dying language”’ (Fishman 2001: 75), proclaimed to be on the verge of obsolescence since the mid-twentieth century, the genitive may be dubbed the proverbial ‘case in decline’ in the Germanic languages. It may then seem unsurprising that Yiddish, which presents evidence of constructional loss vis-à-vis its stock language German (so, for example, in the tense system), is commonly described as having a three-case system of nominative, accusative and dative, lacking genitive case. Equally unsurprising, however, may be that Yiddish, like many other languages, codes adnominal possessive relations by means of a possessive marker associated with the possessor. This is exemplified in (1), which shows the possessor *lerer* ‘teacher’, to bear the formative *-s*.

- (1) *a lerer-s bukh*^{1,2}
 a teacher-s book
 ‘a teacher’s book’

The central question explored in this article is whether Yiddish possessive marking can be justifiably analysed as an instance of morphological genitive case. As noted by Taylor (1996: 117), the answer to the question whether a possessive marker constitutes a genitive case affix depends on the definition of case marking, which is not always consistent across the literature. Setting aside ‘extended’ case concepts such as deep (Fillmore 1968) or abstract (Chomsky 1981) case, a widely accepted definition construes case as an “inflectional category-system expressing dependency relations” (Haspelmath 2009: 507). This definition defines case in terms of both form and function: case is realised as a change in the shape of a word, and has the function of “marking dependent nouns for the type of relationship they bear to their heads” (Blake 2004: 1). The question of whether the Yiddish possessive marker can be considered an exponent of genitive case then splits into two: (i) Is Yiddish possessive marking achieved by morphological means?; and (ii) Does Yiddish possessive marking target a noun that stands in a particular dependency relation to another head?

While the answer to the second question is unambiguously yes (because Yiddish possessive marking is nominal marking of the dependent in the possessive relation), answering the first question, which requires evidence for the affixal nature of Yiddish possessive marking, proves trickier. By necessity, the task of categorising a marker as an affix proceeds from the assumption that affixes exist as a cross-linguistically identifiable category, which can be diagnosed by a set of criteria, such as those developed in Zwicky & Pullum (1983). This assumption is questioned by approaches that understand affixes, clitics and grammatical words to be distributed over a continuum of boundedness (as, for example, Aikhenvald 2002).³ If no clear dividing line can be drawn between affixes and other formatives,

1. All data cited in this article reflect the acceptability judgments of native speakers, unless attributed to other sources. The Yiddish data were collected from two native speakers of Central and Northeastern Yiddish, respectively, schooled in the secular Yiddish school system. The Fribourg German data correspond to the judgments of a single speaker from Wünnewil, while the Colloquial German data were checked with a speaker from Berlin.

2. All Yiddish examples and titles have been transliterated according to the conventions of Standardised Yiddish Romanisation, developed by the YIVO Institute for Jewish Research (see Weinreich 1968: xx–xxi).

3. See also Embick & Noyer (2001: 592), for whom the distinction between clitics and affixes is “a cumbersome artifact of lexicalism”.

the notion of affix is at best a fuzzy concept, rendering the answer to the question of whether a given morpheme is a morphological case marker potentially indeterminable or, worse yet, meaningless.⁴

On the other hand, if affixes are not a delimitable grammatical category, case could be said to have a wider range of morphosyntactic realisations than permitted by a definition that understands it to be an ‘inflectional category-system’. In other words, a given marker coding a specific dependency relation between a noun and its head would always be the exponent of a particular case value, regardless of its morphosyntactic properties. This view corresponds to the common practice of using the term *genitive* for both nominal inflection and adpositions in possessor phrases.

Does it then follow that all possessive marking on a dependent nominal is genitive case? This is denied in the literature: surveying the analyses of Dutch and German prenominal possessors ending in *-s*, Allen (2008: 47) concludes that in these languages, “*-s* should not be considered a case marker” on the basis of the asymmetries that exist between *-s* possessors and other genitive noun phrases in Dutch and German. These asymmetries include (i) the absence of possessive-marked nouns in other genitive contexts (e.g. as prepositional complements), (ii) the lack of evidence for concordial case marking in the possessor phrase, and (iii) the restriction of possessive marking to proper names (or nominal phrases reanalysed as proper names; see Hartmann & Zimmermann 2002) and to possessors in prenominal position. It is thus not the absence of idiosyncrasy and exceptionality (as in Zwicky & Pullum’s 1983 diagnostics for distinguishing clitics from affixes) that disqualifies the possessive formative from being an affix, but rather its distinct behaviour from that of other members of the genitive case category.

Yiddish is a language in which there appears to be no justification for genitive case other than prenominal possessive marking, given that verbal and prepositional objects can be unambiguously identified as either accusative or dative. With no unequivocal genitive case forms to serve as standard of comparison, what criteria would possessive marking have to meet in order to qualify as genitive case? The argument pursued in this article is that in a language with morphological case, possessive marking can be labelled genitive if (i) the possessor phrase is not overtly marked for another case, *and* (ii) the possessive marker displays affix-like

4. This position accords with that of Haspelmath (2011), who argues that there is no motivation for making a distinction between morphology and syntax, if it turns out to be the case that grammatical units do not cluster on the continuum of boundedness, but are randomly distributed. He concludes that morphosyntax is “currently best viewed as a unitary domain” (Haspelmath 2011: 72).

behaviour. In other words, in line with Haspelmath's (2009: 513) dictum that the "term genitive for the case of the possessor is relatively unproblematic, and there seems to be no strong reason to rename it possessive case", it can be assumed that in a morphological case-marking language, possessors bear genitive case if the possessor in an adnominal possessive construction does not decompose into a string that consists of a nominal marked for nominative, accusative or dative case, followed by a non-affixal possessive marker.

The task then becomes to show that:

- Yiddish is a language with morphological case;
- Yiddish uses a possessive marker that has affixal properties;
- Yiddish marks adnominal possessive relations by means of a case form distinct from nominative, accusative or dative.

The claim made here is that all three of these statements are empirically correct, and that Yiddish can hence be considered a four-case language, with nominative, accusative, genitive and dative. The discussion of the evidence proceeds as follows: Section 2 introduces Yiddish as a language with morphological case, and presents the received view of Yiddish possessive marking as involving a dative noun phrase combined with a possessive marker. Section 3 considers the morphosyntactic status of this possessive marker, comparing Yiddish to possessor doubling constructions in other Germanic varieties, and arguing that Yiddish possessive *-s* patterns with affixes in both its degree of attachment and type of placement. Section 4 charts the development of Yiddish possessive marking from the Middle Yiddish period, demonstrating and seeking an explanation for the fact that not all possessor forms are isomorphic with a dative nominal combined with *-s*. The article concludes in Section 5 by reviewing the principal findings.

2. The Yiddish case system

Most grammars and textbooks of Yiddish (see, for example, Mark 1978: 173, Weinreich 1981: 306, Katz 1987a: 75) describe (Standard) Yiddish as having three morphological cases – nominative, accusative and dative.⁵ Case is overtly

5. Standard Yiddish is the outcome of Modern Yiddish language planning, closely associated with the work of the YIVO Institute of Jewish Research, founded in Vilna in 1925 (see Fishman 2008 for a discussion of the principles that underpinned Yiddish standardisation).

marked on definite determiners, but not generally on nouns, where only a subset is inflected. This subset encompasses proper nouns and a small number of common nouns, which predominantly have human referents, denoting kinship terms and social relations: *tate* ‘father’, *zeyde* ‘grandfather’, and *rebe* ‘(traditional) rabbi, teacher’ are obligatorily inflected with the suffix *-n* to mark accusative and dative case, while *yid* ‘Jew, man’, *mentsh* ‘person’, *mame* ‘mother’, *bobe* ‘grandmother’, *mume* ‘aunt’ and *harts* ‘heart’ are optionally inflected with *-n* for either accusative and dative case (for the masculine nouns *yid* and *mentsh*) or merely dative case (for the feminine nouns *mame*, *bobe* and *mume*, and the neuter noun *harts*). Case marking also appears on modifying adjectives by agreement with the head noun. Table 1 shows the Yiddish case paradigm as routinely presented in the literature, exemplifying both non-inflecting (e.g. *lerer* ‘teacher’) and inflecting (e.g. *tate* ‘father’) nouns.

Table 1. Nominative, accusative and dative case inflection in Standard Yiddish

	Singular			Plural
	Masculine	Feminine	Neuter	
NOM	<i>der gut-er lerer</i> ‘the good teacher’ <i>der gut-er tate</i> ‘the good father’	<i>di gut-e lererin</i> ‘the good teacher’ <i>di gut-e mame</i> ‘the good mother’	<i>dos gut-e yingl</i> ‘the good boy’ <i>dos gut-e harts</i> ‘the good heart’	<i>di gut-e lerer-s/ tate-s/</i> <i>lererin-s/ mame-s/</i> <i>yingl-ekh/ herts-er</i>
ACC	<i>dem gut-n lerer</i> <i>dem gut-n tat-n</i>	<i>di gut-e lererin</i> <i>di gut-e mame</i>	<i>dos gut-e yingl</i> <i>dos gut-e harts</i>	<i>di gut-e lerer-s/ tate-s/</i> <i>lererin-s/ mame-s/</i> <i>yingl-ekh/ herts-er</i>
DAT	<i>dem gut-n lerer</i> <i>dem gut-n tat-n</i>	<i>der gut-er lererin</i> <i>der gut-er mame-(n)</i>	<i>dem gutn yingl</i> <i>dem gutn harts-(n)</i> ⁶	<i>di gut-e lerers/ tates/</i> <i>lererins/ mames/</i> <i>yinglekh/ hertser</i>

It is best described as a compromise variety that contains features found across the Yiddish dialect continuum (Jacobs 2005: 287). While the existence of a spoken standard is frequently called into question (see, for example, Birnbaum 1979: 100), it is generally accepted that the morphological and syntactic norms of the standard variety, which largely reflect the grammatical system of Central and Southeastern Yiddish, are widely adhered to (Peltz 2003: 440).

6. With the noun *harts*, the presence versus absence of the nominal inflection distinguishes the metaphorical and ordinary use of the word: *fun dem likhtikn hartsn/??harts* ‘from the heart filled with light’ versus *fun dem infitsirtn harts/??hartsn* ‘from the infected heart’.

As seen in Table 1, Yiddish exhibits a high degree of case syncretism, lacking any morphological distinction between (i) accusatives and datives in the masculine gender, (ii) nominatives and accusatives in the feminine and neuter genders, and (iii) nominatives, accusatives and datives in plural nouns of all genders.⁷

In addition to the case forms given in Table 1, nouns may appear with the formative *-s*, which is sometimes described as marking genitive case (Birnbaum 1918: 35, 1939: 39; Joffe 1964: 21; Jacobs, Prince & van der Auwera 1994: 402; Lincoff 1963: 48; Lockwood 1995: 9; Harbert 2007: 104), but more frequently as indicating 'possessive' (Mazin & De Woolf 1927: 10; Mark 1941: 50, 1978: 178; Birnbaum 1979: 224; Weissberg 1988: 126–27; Neuberg 1999: 56; Kiefer 2000: 1404; Aptroot & Nath 2002: 110; Jacobs 2005: 161), due to its appearance in prenominal possessor constructions, such as (2).

- (2) *a lerer-s bukh*
 a teacher-s book
 'a teacher's book'

Yiddish *-s* is commonly ascribed to derive from the German stock language (Birnbaum 1939: 39; Weinreich 2008: 508, 654), corresponding to Middle High German *-(e)s*, the genitive marker on masculine and neuter nouns of the strong declension (Paul 2007: 185–86). Given the apparent etymological link between Yiddish *-s* and the German genitive case marker *-(e)s*, the question arises why Yiddish grammarians have not uniformly analysed *-s* as a genitive suffix, and, consequently, describe Yiddish to have a system of three rather than four morphological cases. The answer to this question may lie in two observations:

- a. The formative *-s* has restricted syntactic distribution, occurring productively only in prenominal possessor constructions.⁸ If *-s* was the exponent of genitive, genitive case in Yiddish would not serve the same range of functions that

7. In non-standard varieties of Yiddish, case distinctions in the nominal paradigm have been further eroded. For example, in both Northeastern (Lithuanian) and Central (Polish) Yiddish dialects, the accusative and dative have coalesced in the feminine gender, resulting in a single nominative-accusative-dative form (Wolf 1969: 129), while in Contemporary (particularly spoken) Yiddish, there appears to be progressive levelling of all case distinctions (Jacobs 2005: 292).

8. Possessive *-s* may be found postnominally in Yiddish patronymic/matronymic constructions, such as, for example, *Khane Leybs* 'Hannah, Leyb's daughter' or *Yitskhok Bashevis* 'Isaac, Basheve's son'. While the construction is productive, it is limited to the merger of two names, the second of which may include an apposition, as in *Motl Peysi dem khazns* 'Motl, the cantor Peysi's son'. I will set aside patronymic/matronymic constructions in this article.

are found in other languages (cf. for example, the genitive case-marking of verbal, prepositional and adjectival complements in German).⁹

- b. Yiddish definite determiners do not possess a formally distinct genitive form. If the formative *-s* was a genitive case suffix, genitive case in Yiddish would be marked only on the noun, which is at odds with the generalisation that ‘articles retain distinct case forms more robustly than nouns’ (Harbert 2007: 105).

The first observation concerns the fact that Determiner Phrases (DPs) marked with *-s* are found only in prenominal possessor phrases and do not occur non-adnominally. As shown below, Yiddish verbs cognate to verbs taking genitive objects in German (G) appear with accusative objects or prepositional-phrase (PP) complements (cf. (3)–(4)); Yiddish prepositions, unlike their German counterparts, uniformly govern the dative (cf. (5)); and Yiddish adjectives corresponding to German adjectives that require genitive objects have PP-complements (cf. (6)).

- (3) a. *Europa gedenkt d-es Erst-en Weltkrieg-s* [G]
 Europe remembers the-M.SG.GEN first-M.SG.GEN world.war-GEN¹⁰
- b. *Eyropе gedenkt d-i ersht-e velt-milkhome*
 Europe remembers the-F.SG.ACC first-F.SG.ACC world-war
 ‘Europe remembers World War I.’
- (4) a. *Niemand bedient sich d-es*
 nobody serves REFL the-N.SG.GEN
gleich-en Vokabular-s [G]
 same-N.SG.GEN vocabulary-GEN.
- b. *Keyner badint zikh nisht mit d-em*
 nobody serves REFL not with the-M.SG.DAT
zalbik-n vokabular
 same-M.SG.DAT vocabulary
 ‘Nobody uses the same vocabulary.’
- (5) a. *anstatt d-es Geld-es* [G]
 instead the-N.SG.GEN money-GEN

9. See Fleischer & Schallert (2011: 83–4), Scott (2011), Ackermann, this volume, and Gallmann, this volume, concerning the actual use of genitive in Contemporary German.

10. The abbreviations used in the interlinear glosses follow the ‘Leipzig Glossing Rules’ <<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>>: M: masculine; F: feminine; N: neuter; SG: singular; PL: plural; GEN: genitive; ACC: accusative; DAT: dative; REFL: reflexive; DIM: diminutive.

- b. *anshtot d-em gelt*
 instead the-N.SG.DAT money
 'instead of the money'
- (6) a. *schuldig d-es Mord-es* [G]
 guilty the-M.SG.GEN murder-GEN
 b. *shuldik in d-em mord*
 guilty in the-M.SG.DAT murder
 'guilty of murder'

If *-s* expressed genitive case in Yiddish, genitive case in Yiddish would be used exclusively to mark an adnominal relation in the domain of possession, which – notwithstanding the fact that the structural marking of possession is regarded as the core function of the genitive – is cross-linguistically unusual, given the heterogeneity of functions characteristically performed by the genitive (for an overview, see Lander 2009 and Carlier & Verstraete 2013).

The second observation refers to definite possessor phrases marked with *-s* appearing with the determiner *dem* if the head noun is masculine or neuter (see (7a, c)), and *der* if the head noun is feminine (see (7b)).

- (7) a. *dem gutn lerer-s bukh* (masculine possessor)
 the good teacher-s book
 'the good teacher's book'
 b. *der guter lererin-s bukh* (feminine possessor)
 the good teacher-s book
 'the good (female) teacher's book'
 c. *dem gutn kind-s bukh* (neuter possessor)
 the good child-s book
 'the good child's book'

The determiners *dem* and *der* are also used to mark oblique or dative case (cf. Table 1). What is more, modifying adjectives in the possessor phrase (e.g. *gut-* 'good' in (7)) will take the same case ending as adjectives in a DP marked for dative case, so that the (putative) dative/genitive distinction is signalled only by the noun marked with *-s*. While case syncretism is common in the Yiddish case paradigm, it is, at least within Germanic, typologically unusual that a morphologically marked case distinction should persist without the determiner continuing to reflect that case distinction (Harbert 2007: 105; Krifka 2009: 141).

In view of these two observations, Yiddish grammars and textbooks frequently describe prenominal possessor marking as involving the addition of 'possessive *-s*' to a possessor DP that is case-marked for dative, as reflected in the glosses in (8).

- (8) a. [*d-em* *gut-n* *lerer*]-s *bukh*
 [the-M.SG.DAT good-M.SG.DAT teacher]-s book
 'the good teacher's book'
- b. [*d-er* *gut-er* *lerer-in*]-s *bukh*
 [the-F.SG.DAT good-F.SG.DAT teacher-F]-s book
 'the good (female) teacher's book'
- c. [*d-em* *gut-n* *kind*]-s *bukh*
 [the-N.SG.DAT good-N.SG.DAT child]-s book
 'the good child's book'

If Yiddish prenominal possessor DPs bear dative case, *-s* cannot straightforwardly be analysed as a genitive case affix, which explains the approach to characterise this element in terms of its (possessive) function rather than its (case) form.

While generally understanding possessive *-s* not to be a case marker, the Yiddish grammatical literature recognises some occurrences of *-s* to be a 'rare vestige of genitive case' (Herzog et al. 2000: 344). These vestiges involve the optional presence of *-s* in adverbial and partitive phrases, as exemplified in (9).

- (9) a. *tsu morgn(s)*
 to morning
 'the next morning'
- b. *far tog(s)*
 before day
 'at the crack of dawn'
- c. *a shtik veg(s)*
 a part way
 'part of the way'

Vestigial genitives are also claimed to exist in the pronominal system (Birnbaum 1979: 249, fn. 97; Herzog et al. 2000: 140), able to surface, for example, as the complement of the periphrastic verb *poter vern* 'to get rid of' (which can alternatively occur with a prepositional complement, cf. (10b)).

- (10) a. *me darf zayner/irer poter vern*
 one must he.GEN/she.GEN free become
 'One must get rid of him/her.'
- b. *me darf poter vern fun im/ir*
 one must free become from he.DAT/she.DAT
 'One must get rid of him/her.'

In summary, the commonly accepted picture concerning morphological case and the expression of adnominal possession in Yiddish is as follows:

- Yiddish has three morphological cases: nominative, accusative and dative.
- While Yiddish possesses some vestigial genitive forms in the nominal and pronominal domains, it lacks productive genitive marking (including in adnominal constructions).
- Prenominal possessors bear dative case and are marked with an additional possessive element (-s).

Whether considered from a synchronic or diachronic perspective, the established view raises various questions. These questions relate to, on the one hand, the morphosyntactic status of the possessive formative, and, on the other, the evidence for genitive in the older stages of Yiddish, which will be discussed in turn in the following sections.

3. The morphosyntactic status of the Yiddish possessive marker

3.1 Prenominal possessor constructions in Fribourg German

The curious double-marking of Yiddish prenominal possessors, which appear to bear dative case as well as a possessive marker, shows parallels with prenominal possessive constructions in other Germanic varieties. One such variety is the Alemannic dialect of Fribourg German (FG), in which simple possessor DPs are formed by combining a dative determiner with a noun marked with -s (which is realised as a voiceless post-alveolar fricative when preceded by /r/), cf. (11).

- (11) a. *dum tɔkxtər-š wägli* (Henzen 1927: 179)[FG]
 the.M.SG.DAT doctor-s carriage
 ‘the doctor’s carriage’
- b. *dər muətər-š lumpə* (Henzen 1927: 179)[FG]
 the.F.SG.DAT mother-s headscarf
 ‘the mother’s headscarf’

In the literature (Weiß 2008; Georgi & Salzmann 2011), German dialectal doubly marked possessive constructions like (11) have been analysed as a variety of prenominal possessor doubling constructions, which are widely attested across German dialects (Fleischer & Schallert 2011: 85).¹¹ In possessor doubling

11. Zifonun (2005: 46) seems to have in mind a similar analysis for Yiddish prenominal possessive marking when citing Yiddish as possible supporting evidence for the ability of possessive pronouns to develop into dependent affixes.

constructions, exemplified in (12)–(13) with data from Fribourg and Colloquial German (CollG), a DP-possessor occurs with a possessive pronoun that shows agreement with both the possessor (in the stem) and the possessum (in the suffix).

- (12) *dum* *təktər* *sis* *wägeli* (Henzen 1927: 179)[FG]
 the.M.SG.DAT doctor his[N.SG.NOM] carriage
 ‘the doctor’s carriage’
- (13) a. *d-em* *Hund* *sein* *Futter* ‘the dog’s food’[CollG]
 the-M.SG.DAT dog his[N.SG.NOM] food
 b. *d-em* *Hund* *sein-e* *Leine* ‘the dog’s lead’[CollG]
 the-M.SG.DAT dog his-F.SG.NOM lead

While their respective proposals differ in the details of the postulated phrase structure, both Weiß (2008: 5) and Georgi & Salzmann (2011: 2082–83) claim that prenominal possessor DPs occupy the specifier of the possessive DP, whereas the doubled pronoun or possessive marker occurs in D. Dialectal doubly marked possessive constructions (as in FG) and prenominal possessor doubling constructions (as in both FG and CollG) are thus given the same structural analysis.¹² As for the dialectal possessive marker *-s*, both accounts consider it to be a clitic, with “genitive morphology presumably no longer genitive” (Weiß 2008: 3) but similar to English “*s*” (Georgi & Salzmann 2011: 2079).¹³

Leaving aside the issue of whether clitics constitute a “genuine category in grammatical theory” (Zwicky 1994: xiii) and, more generally, the question of how the relation between morphology and syntax is to be construed,¹⁴ there is universal consensus that the label ‘clitic’ points to “an element which shares some of the features of an independent function word and some of the features of an affix” (Spencer & Luís 2013: 124–25). More specifically, clitics are understood to differ from full forms in requiring a host with which they must fuse phonologically. They are understood to differ from (word-level) affixes by attaching to the edge of a phrase rather than to a particular type of word, showing a low degree of selection with respect to the host (Zwicky & Pullum 1983: 503).

12. See Roehrs (2013) for a different analysis of possessor doubling constructions, according to which the doubled pronoun is a composite form, consisting of a possessive element and an indefinite article; that is, German *sein* ‘his’ decomposes into *s-* + *ein*.

13. The question whether English possessive *-s*, which is placed at the right edge of a phrase but shows morphophonological interaction with its host word, should in fact be treated as a clitic has been subject of much debate. See Anderson (2013) for an overview.

14. See, for example, Gerlach & Grijzenhout (2000: 8–10) and Spencer & Luís (2012: 327) on the status of clitics, and Harley (2015) and Fábregas & Scalise (2012: 133–142) on theories of the morphosyntactic interface.

Weiß's and Georgi and Salzmann's analyses of the FG possessive marker as a clitic then predict that FG *-s* is found at the edge of the possessor DP, irrespective of (i) the type of possessor, (ii) the presence of any modifiers accompanying the possessor noun, or (iii) the syntactic category of whatever element occurs at the edge of the possessor phrase. This prediction is not fully borne out. As the examples in (14) show, FG possessive *-s* is indeed not restricted to any particular type of possessor, but can occur with full singular and plural possessor DPs, including those modified by a possessive determiner.

- (14) a. *min-um miiṭli-s maa* (Henzen 1927: 179)[FG]
 my-F.SG.DAT girl-s husband
 'my girl's husband'
- b. *də pūrə-s himətləni* (Henzen 1927: 179)[FG]
 the.PL.DAT farmers-s estates
 'the farmers' estates'

However, FG possessive *-s* is not found at the right most edge of a post-modified possessor DP. In other words, FG, unlike English, does not allow 'group genitives' of the structure [[[NP] [PP]]-s Possessum], cf. (15a).¹⁵ Instead, complex possessors produce 'split genitives' ([NP]-s Possessum [PP]), where the possessive marker has combined with the head noun of the possessor DP and the post-modifying PP is extraposed to the right of the possessum, cf. (15b).

- (15) a. **dum təkxtər us Bärn-s Auto* [FG]
 the.M.SG.DAT doctor from Bern-s car
- b. *dum təkxtər-š Auto us Bärn* [FG]
 the.M.SG.DAT doctor-s car from Bern
 'the car of the doctor from Bern'

FG prenominal possessor doubling constructions give rise to different grammaticality judgments on group and split genitives. As illustrated in (16), group genitives are perfectly possible in the possessor doubling construction, whereas split genitives are judged to be unacceptable.

- (16) a. *dum təkxtər us Bärn sis Auto* [FG]
 the.M.SG.DAT doctor from Bern his[N.SG.NOM] car
 'the car of the doctor from Bern'

15. The term 'group genitive' goes back to the work of Jespersen (1894: 279, 309–15); see Denison, Scott & Börjars (2010: 536–37) for a brief discussion of its origin and historical definition.

varieties, as, for example, Swedish.¹⁷ Norde (2013) argues for the Swedish *-s* genitive (as illustrated in *farfar-s hem* ‘grandpa’s home’) to have evolved from an inflectional affix to a clitic,¹⁸ which can no longer be appropriately described as a case marker. Crucially, she considers split genitives in Old Swedish (e.g. *konungen-s stalmestare i Danmark*, lit. ‘the king’s equerry in Denmark’, i.e. ‘the king of Denmark’s equerry’; Norde 2013: 321, Example (28b)) to involve word- or phrase-level affixation rather than enclitic marking. What sets apart affixal from clitic phrase-marking is the degree of selection: “still quite selective about the word it attaches to”, the *-s* genitive in Old Swedish is unable to combine with “word classes that are not inflected for case” (Norde 2013: 316). If, following Norde (2013) and others (see Allen 2008: 43), group genitives provide a diagnostic for the clitic status of a bound possessive marker, it must be the case that FG *-s* does not qualify as a clitic.

Note that Norde (2013: 318) recognises some of the inflected possessors in Old Swedish split genitive constructions (e.g. *konungen-s* in *konungen-s stalmestare i Danmark*, lit. ‘the king’s equerry in Denmark’) to have phrasal rather than word-level affixation, given the lack of word-internal inflection and/or case agreement within the NP.¹⁹ The development of the Swedish *-s* genitive in this period may hence be characterised as “a change from genitive case being an agreement feature to it being a once only feature, generally marked on the head noun” (Börjars 2003: 144). Whether the FG possessive *-s* can similarly be described as a once-only marker is less clear since the determiner in the FG possessor DP is overtly marked for case, albeit not one that is self-evidently identifiable as genitive.

The notion of phrasal affix draws attention to the separability of placement and degree of attachment in the description of affixes and clitics, as explicated by Börjars (2003). While phrasal affixes are placed with respect to a phrase, they are morphologically attached to (and hence selective about) a word. In Börjars’s (2003: 141) view, the distinction between clitic and affix is not binary but forms part of a continuum, which can be conceptualised along three dimensions, mapped

17. See also Allen (2008) on the development of genitive constructions in the history of English, and Börjars et al. (2013) for a discussion of split genitives in present-day spoken English.

18. See Börjars (2003) for an alternative view, according to which the Modern Swedish *-s* genitive is not a clitic but a phrasal affix.

19. Old Swedish definite nouns showed case inflection on both the noun and the bound definite article (Norde 2013: 315), so that word-level inflection of the possessor DP *konung-en* ‘the king’ for genitive case would have produced **konung-s-en-s*.

in Figure 1: (i) once-only marking vs. agreement, (ii) edge vs. head placement, and (iii) syntactic vs. morphological attachment.

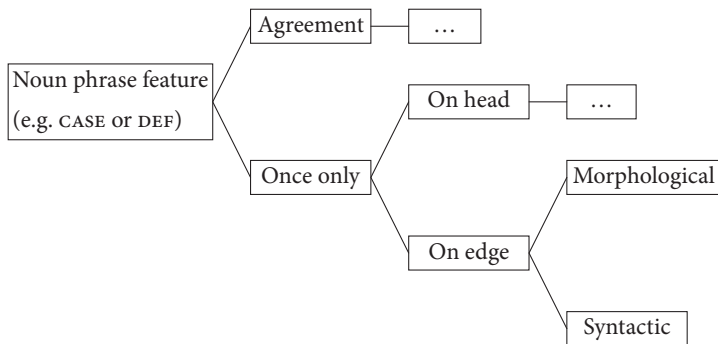


Figure 1. Potential variation in exponence of noun phrase features (Börjars 2003: 141)

Languages thus vary along the following lines: first, morphosyntactic features like case or definiteness can be marked once or on various heads throughout the nominal phrase; second, if a feature is marked just once, it can appear either on the edge of a phrase or on a (nominal) head; third, if it appears on the edge of a phrase, there may or may not be morphophonological interaction between the marker and its host. Of relevance to the present study, Börjars's three-dimensional distinction sets out a clear stepwise procedure for investigating the morphosyntactic status of possessive marking.

To sum up, the extant analyses of FG doubly marked possessive constructions face two shortcomings: (i) they subsume doubly marked possessive constructions under prenominal possessor doubling, leaving unexplained why complex possessor phrases do not behave identically in the two construction types; (ii) they analyse possessive *-s* as a clitic, which predicts the availability of group genitives, contrary to fact. While further analysis of FG possessive structures is beyond the scope of this article, the FG data provide a useful point of comparison against which to consider the properties of Yiddish prenominal possessives. More specifically, the data, when viewed in the context of Börjars's (2003) framework for describing variation in the exponence of morphosyntactic features, identify the following questions:

- Are prenominal possessors limited to certain DPs (e.g. animate nouns)?
- Is the possessive marker a once-only marker (or do nominal modifiers of the possessor bear concordial marking)?
- Is the possessive marker able to appear in group genitives, attaching 'promiscuously' to words of any category?

3.2 The properties of Yiddish prenominal possessors

Using the questions set out in the previous section, the present discussion of the properties of Yiddish prenominal possessors first considers what types of nominals can occur as possessors, and then turns to the empirical evidence for once-only occurrence and edge placement of possessive *-s*.

3.2.1 Selectional restrictions

In Standard Yiddish, both proper nouns and full DPs, which can include definite, possessive or indefinite determiners as well as adjectival phrases, can occur as prenominal possessors:

- (17) a. *Dovid-s (nay-e) shikh*
David-s new-PL shoe.PL
'David's (new)shoes'
- b. *dem yingl-s (nay-e) shikh*
the boy-s new-PL shoe.PL
'the boy's (new) shoes'
- c. *mayn yingl-s (nay-e) shikh*
my boy-s new-PL shoe.PL
'my boy's (new) shoes'
- d. *a yingl-s (nay-e) shikh*
a boy-s new-PL shoe.PL
'a boy's (new) shoes'

Alternatively, a possessor can be realised as a PP in post-possessum position, in which case it is introduced by *fun* 'of, from,' and, like all prepositional complements, case-marked for dative, cf. (18).

- (18) a. *di shikh fun Dovid-n*
the.PL shoe.PL of David-SG.DAT
'David's shoes'
- b. *di shikh fun d-em/ mayn/a yingl*
the.PL shoe.PL of the-N.SG.DAT/ my/a boy
'the/my/a boy's shoes'

Prenominal possessors are prototypically [+animate]; non-animate possessors are largely confined to occurring in post-possessum position (Mark 1978: 179; Birnbaum 1979: 224).

- (19) a. *dem yingl-s fus*
the boy-s foot/leg
'the boy's foot/leg'

- b. *dem hintl-s fus*
the dog.DIM-s foot/leg
'the little dog's foot/leg'
- c. **baym barg-s fus*
at.the.M.SG.DAT mountain-s foot/leg
- d. *baym fus fun barg*
at.the.M.SG.DAT foot/leg of mountain
'at the foot of the mountain'

For many speakers, prenominal possessors can only be [+ singular] (Birnbaum 1918: 34; Lincoff 1963: 36; Mark 1978: 179; Weinreich 1981: 131, 325; Lockwood 1995: 110; Gold 2009: 649, fn.10). Some speakers also accept [+ plural] prenominal possessors marked with possessive -s, although acceptability is degraded for possessor nouns whose plural marker is -s (e.g. *zeyde* 'grandfather'), cf. (20).²⁰

- (20) a. *%...zol oysgeyn tsu soyn-im-s kep*
...should go.out to enemy-PL-s head.PL
'[It] should go on my enemies' heads' (Weissberg 1988: 129)
- b. **?beyde zeyde-s yikhes-briv* (Gold 2009: 649, fn. 10)
both grandfather-PL/s pedigree-letter.PL
- c. *di yikhes-briv fun beyde zeyde-s* (Gold 2009: 649, fn. 10)
the.PL pedigree-letter.PL of both grandfather-PL
'both grandfathers' family trees'

In summary, the possessive marker -s is found without exception on [+ animate, + singular] proper and common nouns in prenominal possessor position. Dialectal variation exists with respect to the possessive marking (and, consequently, occurrence in prenominal possessor position) of [+ animate, + plural] nouns.

3.2.2 Morphological marking

Prenominal possessors show only a single instance of the possessive formative -s, used regardless of the gender of the head noun (cf. (8)), and occurring to

20. In singular nouns ending in /s/, the possessive marker goes unexpressed, e.g. (i).

- (i) *dem balebos' zun*
the owner-Ø son
'the owner's son'

This appears not to be possible for plural nouns in the varieties allowing prenominal plural possessors, since otherwise it is not clear why plural noun phrases like *beyde zeydes* 'both grandfathers', in (20b) are not licensed in prenominal position.

its immediate right. This is clearly seen in the examples in (21), which contain the proximate and distal demonstratives (*ot*) *d-* ‘this’ (which is essentially homophonous with the definite article) and *yen-* ‘that’. Where the demonstrative stands alone as a possessor, it is affixed with *-s* (cf. (21a)); where it modifies a noun, it is the noun that carries the possessive marker (cf. (21b)). Affixation of *-s* to both the demonstrative and the noun gives rise to ungrammaticality, as seen in (21c).

- (21) a. (*ot*) *d-em-s/* *yen-em-s* *bukh*
 this-M.SG.DAT-*s* that-M.SG.DAT-*s* book
 ‘this/that one’s book’
- b. (*ot*) *d-em/* *yen-em* *lerer-s* *bukh*
 this-M.SG.DAT that-M.SG.DAT teacher-*s* book
- c. *(*ot*) *d-em-s/* *yen-em-s* *lerer-s* *bukh*
 this-M.SG.DAT-*s/* that-M.SG.DAT-*s* teacher-*s* book
 ‘that teacher’s book’

As standardly assumed in the Yiddish grammatical literature (cf. Section 2), and reflected in the glosses for (21) and (22), *-s* appears to attach to a possessor marked for dative; that is, definite possessor DPs show the determiner, pronominal and adjectival endings which also appear in DPs that are unambiguously dative, such as prepositional complements:

- (22) a. *der* *yingst-er* *tokhter-s* *shtub*
 the.F.SG.DAT youngest-F.SG.DAT daughter-*s* house
 ‘the youngest daughter’s house’
- b. *mit der* *yingst-er* *tokhter*
 with the.F.SG.DAT youngest-F.SG.DAT daughter
 ‘with the youngest daughter’

But when it comes to the marking of inflecting nouns as possessors, the form of the possessor noun does not always equate to dative + possessive *-s*.²¹ Masculine and neuter nouns that can take the dative case suffix *-n* occur with the possessive marker outside the case affix – irrespective of whether the noun is obligatorily (cf. (23a)) or optionally (cf. (23b, c)) inflected for dative:

21. This is not true for all speakers. There is textual evidence (see, for example, Rozenfarb 1947: 33) for forms like *der mamens* ‘the mother’s’, which has the dative suffix *-n* in a feminine possessor noun (see also Kiefer 2000: 1404). Vice versa, some varieties use possessor forms that lack any dative marking, as, for example, in *dem zeydes* ‘the grandfather’s’; see Gold (2009: 649, fn. 10). For the native speakers consulted here, only the forms presented in the main text reflect natural usage.

- (23) a. *dem tat-n-s* *shtub*
 the father-SG.DAT-s house
 'the father's house'
- b. *dem yid-n-s* *shprakh*
 the Jew-SG.DAT-s language
 'the Jew's language'
- c. *dem harts-n-s* *bager*
 the heart-SG.DAT-s desire
 'the pure heart's desire'

In contrast, the possessor form of proper names and the three feminine nouns that can inflect for dative (*mame* 'mother'; *bobe* 'grandmother'; *mume* 'aunt') does not contain the dative suffix but only the possessive marker -s, as illustrated in (24)–(25).

- (24) a. *Dovid-s* *trer-n*
 David-s tear-PL
 'David's tears'
- b. *bay Dovid-n*
 with David-SG.DAT
 'with David'
- c. **Dovid-n-s* *trern*
 David-SG.DAT-s tear-PL
- (25) a. *der mame-s* *trer-n*
 the mother-s tear-PL
 'the mother's tears'
- b. *bay der mame-n*
 at the mother-SG.DAT
 'with the mother'
- c. **der mame-n-s* *trern*
 the mother-SG.DAT-s tear-PL

If the possessive marker -s attached to a possessor DP fully marked for dative, it forms like **Dovidns* and **mamens* that are predicted to occur rather than the attested *Dovids* ('David's') and *mames* ('mother's'), given that possessive -s and dative noun inflection co-occur in masculine and neuter common nouns like *tatns* ('father's'). If, as the possessors *Dovids* and *mames* might suggest, possessive marking attached to an uninflected possessor noun, it is *tatns*, *yidns* ('Jew's') and *hartsns* ('heart's') in (23) that remain unexplained.

To sum up, there is no evidence for multiple occurrences of possessive -s in Yiddish prenominal possessor phrases. On the other hand, it is far from clear

that possessor DPs lack concordial genitive case marking since closer inspection reveals possessor noun phrases not to decompose uniformly into a dative-marked DP followed by *-s*, contrary to the accepted view. Given the high degree of case syncretism in Yiddish, it can thus not be excluded that determiners and adjectival endings which have the appearance of dative are in fact exponents of genitive case, and are hence indicative of internal case agreement in the possessor phrase.

3.2.3 Type of placement

As discussed above, group genitives provide a reliable test for establishing whether a once-only marker is placed at the head or on the edge of a possessor phrase. Examples of complex possessor phrases that potentially occur in the group genitive construction encompass (i) coordinated possessors, (ii) possessors with a post-modifying PP, and (iii) possessors post-modified by a relative clause. Type (i) is absent in the majority standard variety of Yiddish, given the proscription against plural possessors in prenominal position.²² Trying to use Type (ii) possessors in the group genitive construction results in unacceptable structures, as illustrated in (26a).²³ Note that, unlike in FG, Type (ii) possessors do not permit split genitive

22. In varieties that permit prenominal plural possessor phrases, group genitives appear at first sight possible, as, for example, in the following line from a Yiddish folksong:

- (i) *shver un shviger-s kest* (Mlotek & Slobin 2007: 89)
 father.in.law and mother.in.law-s board
 'boarding with parents-in-law'

On the other hand, *shver un shviger* may not be a coordinated noun phrase but instead a fixed combination equivalent to a plural noun, as suggested by data like (ii), in which the phrase combines with the plural definite article *di*.

- (ii) *...di shver un shviger zoln nit visn*
 the.PL father-in-law and mother-in-law should not know
 (Sholem Aleichem 1917–1923: 4.213)
 '...the parents-in-law should not know'

If so, (i) does not constitute a true group genitive but may be more aptly analysed as the occurrence of a plural possessor in prenominal position.

23. There are complex possessors which allow phrase-final positioning of *-s*, e.g. (i)–(ii).

- (i) *Shloyme ha-melekh-s khokhme*
 Solomon the-king-s wisdom
 'King Solomon's wisdom'

constructions, cf. (26b), and the only way to realise a possessive with a complex possessor is for the possessor to occur in postnominal position, as shown in (26c).

- (26) a. **dem rov fun der ortik-er*
 the rabbi of the.F.SG.DAT local-F.SG.DAT
 shul-s tokhter
 synagogue-s daughter
- b. **dem rov-s tokhter fun der*
 the rabbi-s daughter of the.F.SG.DAT
 ortik-er shul
 local-F.SG.DAT synagogue
- c. *di tokhter funem rov fun der*
 the daughter of.the.M.SG.DAT rabbi of the.F.SG.DAT
 ortik-er shul
 local-F.SG.DAT synagogue
 ‘the daughter of the local synagogue’s rabbi’

Possessors post-modified by a relative clause similarly fail to give rise to group or split genitives and are similarly limited to post-possessum position, as exemplified in (27).

- (27) a. **dem rov vos hot a gel-e bord-s tokhter*
 the rabbi that has a yellow-F.SG.ACC beard-s daughter
- b. **dem rov-s tokhter vos hot a*
 the rabbi-s daughter that has a
 gel-e bord²⁴
 yellow-F.SG.ACC beard
- c. *di tokhter funem rov vos hot a*
 the daughter of.D.M.SG.DAT rabbi that has a
 gel-e bord
 yellow-F.SG.ACC beard
 ‘the daughter of the rabbi who has a yellow beard’

-
- (ii) *dem raboyne-shel-oylem-s tanoyim*
 the lord-of-world-s Tannaim
 ‘the Lord’s Rabbinic sages’

However, these are examples of proper names, and as such “do not demonstrate a general ability of the possessive marker to attach to the end of a complex phrase” (Allen 2008: 51).

24. The phrase in (27b) is grammatical if the relative clause is interpreted as a modifier of the possessum (*tokhter* ‘daughter’).

In sum, Yiddish provides no evidence for the possessive marker to attach at the right edge rather than the head of the possessor DP since post-modified possessors are generally absent from prenominal position.

3.3 Summary and analysis

This section's survey of the morphosyntactic properties of Yiddish prenominal possessor phrases has yielded the following facts:

- re Once-only marking vs. agreement:
Animate, singular possessor DPs in prenominal position bear a single instance of possessive *-s*. All elements of the possessor DP are overtly inflected for case (which is not the same as dative).
- re Edge- vs. head-marking:
Possessive *-s* attaches to the head noun, which must be situated at the right edge of the possessor phrase.
- re Syntactic vs. morphological attachment:
On the assumption that possessive DPs do not in fact bear dative case, the possessive marking found on head nouns has variant exponence, occurring as (i) *-s*; (ii) *-ns* (as in *tatns* 'father's', cf. (23)); and (iii) *-Ø* (as in *balebos* 'owner's', cf. (i) in fn. 20, Section 3.2.1)).

Taken together, these points suggest that the possessive marker *-s* does not show the characteristics of a true clitic but, in line with a scalar approach to morphosyntactic categories, is more 'affix-like'. First, *-s* is not straightforwardly analysable as a once-only marker. Second (even if it were a once-only marker), the unacceptability of group genitives rules out an analysis of *-s* as an element that is subject to 'pure' right-edge, non-head placement. Third (even if it were attached at the phrase level), the presence of lexically and phonologically triggered variants of *-s* argues in favour of morphological rather than syntactic attachment, assuming that "morphophonological idiosyncracies are more characteristic of affixed words than of clitic groups" (Zwicky & Pullum 1983: 504).²⁵ Accordingly, if, as in Börjars's (2003) approach, the most-clitic like element on the clitic-affix continuum is a once-only marker placed at the edge with an attachment that is syntactic in nature, whereas the most affix-like element is a marker associated with concordial agreement, the evidence concerning Yiddish possessive *-s* points towards the affix end of the continuum.

25. But see Nevins (2011: 959), who argues that "in reality it is very hard to find a clitic that does not show some degree of allomorphy, making this diagnostic restrictive to the point where, if it is literally followed, perhaps nothing can be a clitic at all".

The data presented in this section further show that in both FG and Yiddish the right edge of the possessor phrase coincides with the head noun. Yiddish thus does not have possessives of the type found in formal written Swedish (illustrated in (28a)), where a complex possessor occurs in prenominal position but the possessive marking is attached to the head noun rather than the right edge of the DP:

- (28) a. *institution-en-s för slaviska språk prefekt* [Swedish]
 department-DEF-S for Slavonic languages head.of.department
 'the Head of the Department of Slavonic languages'
 (Börjars 2003: 149, Example (16a))
- b. **dem rov-s fun der ortik-er shul tokhter*
 the rabbi-s of the local-F.SG.DAT synagogue daughter

In the view of Börjars (2003: 150), the occurrence of the Swedish *-s* genitive in both group genitives and constructions like (28a) indicates that the marker is subject to conflicting constraints concerning type of placement; that is, it is required to appear, on the one hand, on the right edge of the noun phrase and, on the other hand, on the head noun. The constraints conflict can be resolved by avoiding complex possessors in prenominal position altogether, either by rendering the complex possessor as a PP-complement to the possessum, or, as in older forms of Swedish, by extraposition of the post-modifier.

These very strategies also seem to be employed by Yiddish and FG speakers, with the former opting for prepositional constructions in the post-possessum position, and the latter able to make use of split genitives. It may then be the case that the Yiddish and FG possessive markers, like the Swedish *-s* genitive, face conflicting pressures due to being involved in diachronic change from head- to edge-marking. Yiddish dialectal variation concerning the distribution and expression of possessive marking (cf. the extension of possessive marking to plural nouns, discussed in Section 3.2.1; and the occurrence of uniform stem + suffix structures with inflecting nouns discussed in fn. 21, Section 3.2.2) lends some support to the idea that Yiddish *-s* has been in the process of acquiring properties more typical of phrasal than word-level inflection. The fluidity afforded by conceptualising the clitic-affix distinction as continuous rather than dichotomous is then well suited to the description of Yiddish *-s*. All the same, concerning the morphosyntactic status of the Yiddish possessive marker, the conclusion must stand that possessive *-s* has not (yet) reached the clitic end of the clitic-affix continuum.

4. Some remarks on the diachrony of Yiddish possessive marking

As previously stated, Yiddish possessive *-s* is understood to derive from the Middle High German (MHG) genitive ending of strong masculine and neuter nouns

(Birnbaum 1939: 39; Weinreich 2008: 508, 654). German possessive constructions in the MHG period (1050–1350) could take various forms: not only did prenominal genitives exist alongside postnominal ones, with the latter gradually becoming entrenched as the unmarked variant (Scott 2014: 218), but there is also evidence for possessor doubling constructions (Lockwood 1968: 21; Koptjevskaja-Tamm 2003: 665) and the emergence of analytical structures involving the preposition *von* ('of') (Behaghel 1924: 62). Whether assuming the 'classic' Rhineland hypothesis (Weinreich 2008: 1–45) or a more easterly origin of Yiddish (as proposed by, among others, Katz 1987b and Wexler 1987), the scenario generally agreed upon is that Yiddish developed between "the end of the Old High German [OHG] period and the early part of the MHG period – somewhere between the ninth and twelfth centuries" (Jacobs 2005: 13).²⁶ If so, Yiddish arose in a context in which it would have been exposed to multiple possessive constructions through language contact with its stock language German.

This section considers evidence concerning the expression of possession in the Middle Yiddish period (1500–1750), and suggests a possible diachronic account of the development of Yiddish possessive marking. The discussion is based on the work of Neuberg (1999), who investigates stylistic phenomena in the Yiddish 'women's bible' *Tsenerene*. The *Tsenerene* (whose title derives from the phrase *tse'énah u-re'énah benot Tsiyon*, 'Go forth and look, daughters of Zion', in verse 3:11 of the Song of Songs) is a Yiddish adaptation of the biblical books that are part of Jewish liturgical life, combined with Midrashic narrative material. It was composed around 1600 by Yankev ben Yitskhok Ashkenazi of Janów, with the two oldest extant editions dating from 1622 (Hanau) and 1648 (Amsterdam).²⁷ It is these editions that are used in Neuberg's (1999) study.

Like all Yiddish printed books prior to the end of the eighteenth century, the *Tsenerene* employs a literary language based on Western Yiddish which sought to avoid regionalisms so as to reach (and be marketable to) all potential readers throughout the Yiddish speech territory (Kerler 1999: 17–18). Neuberg (1999: 109) further observes that the two editions provide evidence of diverse written dialects ('*Schreibdialekte*') by displaying lexical variation, but claims that

26. See Beider (2015: 1–10) for a summary of the different theories of the origins of Yiddish, as well as an exposition of his own divergent view that Yiddish has a more recent (fifteenth-century) origin and that the two main dialects (Western and Eastern Yiddish) share no common ancestor.

27. The *Tsenerene* is the most popular Yiddish book of all times, published in more than 210 editions and reprinted to the present day; see Elbaum & Turniansky (2010) for further information.

syntactic variation in this period is impossible to delimit, whether geographically or temporally.

4.1 Prenominal possessors in the *Tsenerene*

In the *Tsenerene*, prenominal possessor phrases occur in a variety of forms (Neuberg 1999: 48–57): (i) prenominal possessor DPs with concordial genitive morphology, e.g. (29); (ii) prenominal possessor DPs with ‘s-omission’ (a term borrowed from Scott 2014: 221), which involve a determiner marked for genitive but no affix on the noun itself, e.g. (30); (iii) determinerless possessors with possessive -s, e.g. (31); (iv) prenominal possessor DPs with no dependent marking, e.g. (32); and (v) possessor doubling constructions, e.g. (33).^{28, 29}

(29) Prenominal possessor DPs with concordial genitive morphology

- a. *d-es* *man-s*
the-M.SG.GEN man-M.SG.GEN
‘the man’s’
- b. *d-es* *mensh-en*
the-M.SG.GEN human-M.SG.GEN
‘the human’s’
- c. *d-es* *khaver-s*
the-M.SG.GEN friend-s
‘the friend’s’
- d. *d-es* *weib-s*
the-N.SG.GEN wife-N.SG.GEN
‘the wife’s’
- e. *d-es* *herz-en*
the-N.SG.GEN heart-N.SG.GEN
‘the heart’s’

(30) Prenominal possessor DPs with ‘s-omission’

- a. *d-es* *man*
the-M.SG.GEN man
‘the man’s’

28. The *Tsenerene* further provides evidence for the use of postnominal possessives, which have the same format as in Modern Yiddish, cf. (i).

(i) *der sun fun d-em* *mizri* (Neuberg 1999: 56)
the son of the-M.SG.DAT Egyptian
‘the Egyptian’s son’

29. The data in this section are presented as transcribed by Neuberg (1999), who follows the Trier conventions for the transcription of older Yiddish (see Neuberg 2000: 2–4).

- b. *d-es* *khaver*
the-M.SG.GEN friend
'the friend's'
- (31) Determinerless possessors with possessive -s
- a. *meler-s*
miller-M.SG.GEN
'miller's'
- b. *muter-s*
mother-s
'mother's'
- c. *kind-s*
child-N.SG.GEN
'child's'
- (32) Prenominal possessor DP with no dependent marking
- ain* *melech* *sun*
a.M.SG.NOM king son
'a king's son'
- (33) Possessor doubling construction
- ain-es* *malach* *sein* *kol*
a-M.SG.GEN angel his voice
'an angel's voice'

The various possessive constructions found in the *Tsenerene* can be traced back to the different stock languages of Yiddish (viz. German, Hebrew-Aramaic, Romance and Slavic), but also illustrate the 'fusional' character of Yiddish, in which elements deriving from different strata combined in a new system (cf. Weinreich 2008: 29). First, prenominal possessors with concordial marking, possessors with possessive -s and possessor doubling constructions straightforwardly correspond to structures found in the MHG and Early New High German (ENHG; 1350–1650) varieties coteritorial with Yiddish. The phenomenon of *s*-omission, too, is encountered in German since the MHG period (Behaghel 1923: 480, Scott 2014: 215). For prenominal possessors with no dependent marking on either the determiner or noun (cf. (32)), Neuberg (1999: 55–56) hypothesises that these are Yiddish innovations modelled on the Hebrew construct-state construction. Used to encode possessive relations, the Hebrew construct-state construction juxtaposes two nominals: the possessum in the so-called construct state (which is usually, but not always, morphologically marked) precedes the possessor in the unmarked absolute state, e.g. *sefer ha-kohen*, lit. 'book the-priest', i.e. 'the priest's book' (Futato 2003: 70); (*Bathsheba*) *bat Eliam*, lit. '(Bathsheba) daughter Eliam',

i.e. (Bathsheba), Eliam's daughter'. In the Yiddish adaptation of this construction, which occurs predominantly with patronyms, the 'construct' noun appears to be able to either precede or follow the 'absolute', as seen, respectively, in *sun Elosér*, 'son of Eleazar' and *Jizhok sun (wor 'Eśév)*, 'the son of Isaac (was Esau)' (Neuberg 1999: 55–56).

Second, the possessive data demonstrate the fusion of the different components since prenominal possessors with a German-origin, genitive-marked determiner (with or without *s*-omission on the noun) are found not only with German-derived nouns but also with those of Hebrew-Aramaic origin, such as *khaver* in (29c) and (30b) and *malach* 'angel', in (33). The occurrence of nouns from the Hebrew-Aramaic component in possessive constructions in which the head noun is morphologically marked is noteworthy, given Lincoff's (1963: 35) observation that until the late Middle Yiddish period (i.e. before the seventeenth century), "Hebrew nouns show absolutely no [German-origin] case inflections" (see also Timm 1987: 368), although the lack of inflection is likely to have been "merely an orthographic omission, not reflecting actual usage".

The data in (29) and (33) further illustrate that in the period of the *Tsenerene*, Yiddish still had distinct genitive singular forms of the definite and indefinite determiner (*des*, *aines*) as well as different inflectional endings for masculine and neuter nouns corresponding to German nouns of the 'strong' and 'weak' declensions, cf. *-s* in *mans* in (29a), vs. *-en* in *menschen* in (29b) and *herzen* in (29e).³⁰ The possessor forms in (31) show the genitive case ending of strong masculine and neuter nouns to attach to masculine and neuter one-word noun phrases (*meler* 'miller'; *kind* 'child'), but, crucially, also to the feminine one-word noun phrase *muter* ('mother'). The extension of *-s* to single-word, feminine prenominal possessors may coincide in timing with the same development in ENHG: as Scott (2014: 237–8) notes, German possessive *-s*, which is limited to determinerless proper names and kinship terms in prenominal position, emerged "at least by the mid-seventeenth century", gaining in popularity throughout the eighteenth and nineteenth centuries.

30. It is well known that written language is generally more conservative than spoken language. Textual evidence may therefore provide a skewed picture of the diachronic development. Nevertheless, written language may be assumed to represent variants that existed in the spoken language either at the time of writing or at an earlier time, so that changes in the written language document those in the spoken language, even if the written record may lag behind speech (for a development of this argument, see Curzan 2003: 55).

In summary, the possessive data supplied by Neuberg's (1999) study of the *Tsenerene* allows the following generalisations:

- Seventeenth-century Yiddish, as reflected in the *Tsenerene*, had morphologically distinct genitive case forms for (German-origin) determiners and nouns.
- The inflectional element *-s* had become productive, spreading from strong masculine and neuter nouns of German origin to feminine nouns and nouns belonging to the Hebrew-Aramaic component.
- Prenominal possessor nouns were not consistently inflected: *s*-omission could affect both German- and Hebrew-origin nouns, and occurred in possessors with and without inflected determiners.

4.2 A diachronic scenario

While the language of the *Tsenerene* exhibits a considerably greater degree of inflection on determiners and nouns than Modern Yiddish, the text also shows that the loss of the genitive, masculine/neuter definite determiner *des* was already under way. Neuberg (1999: 51) observes that *des* appears in variable spellings, frequently rendered as װנט (*das/dos* = the neuter nominative/accusative singular form of the definite article) rather than the expected װעט (*des*). These misspellings suggest that genitive determiners no longer formed part of the active competence of seventeenth-century Yiddish speakers, and that the text preserved morphosyntactic patterns with which the typesetters were not familiar.³¹

The loss of genitive case morphology on determiners that manifests itself in the *Tsenerene* was preceded by apocope, which resulted in the loss of the genitive marker *-e* on feminine strong nouns of the German component (Timm 1999: 23). The process, dated by Weinreich (2008: 519) to have been completed before the Middle Yiddish period (see also Lincoff 1963: 44; Timm 1987: 218), gave rise to feminine possessors without any dependent marking (see Timm 1999: 23, who gives the example of *Bele tochter*, 'Bella's daughter'). The emergence of such unmarked feminine possessors may have contributed to masculine possessor DPs with no dependent marking changing syntactic position from postnominal position (which conforms to the ordering of possessum and possessor in the Hebrew construct-state construction) to prenominal position, as in *Jizhok sun* ('Isaac's son') or *ain melech sun* ('a king's son', cf. (32)).

31. Cf. Kerler (1999: Parts I & II), who discusses various cases of morphosyntactic conservatism in eighteenth-century re-editions of Old Yiddish texts.

Timm (1999: 23) further comments on the affixation of *-s* to feminine proper name possessors (e.g. *Haves*, ‘Chava’s’), which is attested as early as the late sixteenth century, proposing that feminine possessors with *-s* developed on the model of the possessive marking of diminutives of female names. Like all diminutives, hypocoristics (e.g. *Tsorlin*, ‘little Sarah’; Weinreich 2008: 614) are of neuter gender, and hence required *-s* in the genitive singular. The use of *-s* may then have spread from diminutive female names to non-diminutive female names and, in a further development, to feminine nouns, such as *muter* (‘mother’, cf. (31b)).

In summary, Old and Middle Yiddish texts up to and including the *Tsenerene* provide evidence for three diachronic developments affecting the marking of prenominal possessors:

- i. the loss of genitive marking on feminine strong nouns (by the 16th century);
- ii. the analogical extension of the masculine/neuter genitive suffix *-s* to feminine (proper) nouns in prenominal possessor position (by the late 16th century);
- iii. the loss of genitive marking on masculine/neuter determiners (by the early 17th century).

When considering the further diachronic development in the period from the seventeenth century to Modern Standard Yiddish, what needs to be accounted for is the replacement of *des* by *dem* as the definite article in masculine and neuter possessor DPs, as well as the fact that some, but not all, inflecting nouns appear to have the dative singular suffix *-n* when occurring as possessors. To understand how the process that yielded the synchronic outcome might have unfolded, it is helpful to review what is known about the organisation of nominal inflection in pre-modern Yiddish.

Lincoff (1963: 29–51) charts the changes in case morphology during the Old, Middle and Modern Yiddish periods. For Old Yiddish, she assumes, as in MHG, a distinction between strong and weak nouns, with masculine, feminine and neuter strong nouns having distinct case endings for both genitive (*-(e)s* M./N.SG.GEN; *-e* F.SG.GEN) and dative (*-a* M./N.SG.DAT; *-e* F.SG.DAT) in the singular paradigm. Weak nouns of all genders were characterised by *-en* in the accusative, genitive and dative singular. By the Middle Yiddish period (1500–1750), apocope had eroded the morphological distinctions in the nominal system, obliterating the dative singular marking of masculine and neuter strong nouns, as well as the genitive and dative singular marking of feminine strong nouns. For weak nouns, Lincoff (1963: 48) suggests that the case endings were “gradually dropped through the actions of analogy”, and concludes that “[i]n late MY [Middle Yiddish] one can no longer speak of any nouns as being ‘weak’, since by analogy with strong nouns, nouns historically weak show no case inflection in the singular”.

Lincoff's account thus ignores (or at least does not grant any special status to) the nine inflecting nouns *tate* 'father'; *zeyde* 'grandfather'; *rebe* '(traditional) rabbi, teacher'; *yid* 'Jew, man'; *mentsh* 'person'; *mame* 'mother'; *bobe* 'grandmother'; *mume* 'aunt'; and *harts* 'heart'. Four of these nouns came into Yiddish from MHG, where they belonged to the weak paradigm: *yid* < MHG *jude*, *jüde* (Weinreich 2008: 492); *mentsh* < MHG *mensch(e)*, *mume* < MHG *muome*, and *harts* < MHG *hërze*. The nouns *tate* and *mame*, while often claimed to be of Slavic origin, may also derive from the German component (see Beider 2015: 168), with both *tate* and *mamme* attested as weak nouns in MHG (for *tate*, see Lexer [1872-1878]1992: 2:1408; for *mamme*, see Lexer [1872-1878]1992: 1:2021 and Gärtner et al. 1992: 233). This leaves the nouns *zeyde*, *bobe* and *rebe*: while *zeyde* and *bobe* are of Slavic origin,³² *rebe* derives from Hebrew /rabi/ and, according to Weinreich (2008: 486), is possibly "the oldest extant evidence of fusion" in Yiddish, having undergone umlaut at a time when umlaut was a regular phonological process in German. Like *tate* and *mame*, *zeyde*, *bobe* and *rebe* are disyllabic trochees ending in schwa, designating family or close social relationships. In short, what unites the class of Yiddish nouns inflected for case is their origin as, or (in the case of *zeyde*, *bobe* and *rebe*) their phonological and semantic similarity to, German weak nouns.

In German, weak nouns evolved from a class that, in MHG, encompassed nouns of all three genders to one confined to masculine nouns which prototypically denote male animates and are (or, alternatively, end in) syllabic trochees with a final schwa (Nübling 2008: 284). The diachronic change involved nouns of all three genders changing inflectional class, leading to a substantial reduction in the number of members of the weak noun class. MHG feminine weak nouns, such as *zunge* 'tongue', coalesced with the (strong) feminine *ô*-stems nouns (e.g. *gâbe* 'gift'). The shift of feminine nouns away from the class of weak nouns was characterised by two competing developments: (i) extension of the oblique case form across the singular sub-paradigm, e.g. MHG *zunge*-Ø (SG.NOM), *zunge*-*n* (SG.GEN) > *zungen*-Ø (SG.NOM), *zungen*-Ø (SG.GEN); (ii) the loss of the oblique case inflection -*n* throughout the singular, e.g. MHG *zunge*-Ø (SG.NOM), *zunge*-*n* (SG.GEN) > *zunge*-Ø (SG.NOM), *zunge*-Ø (SG.GEN) (Hartweg & Wegera 2005: 152-53). It is the latter development that ultimately prevailed in the development to NHG,³³ although the process took its time, with singular forms ending in -*n* persisting into the eighteenth century (Wegera & Solms 2000: 1543).

32. Beider (2015: 431) suggests an Old Czech origin for both terms.

33. Upper German varieties, on the other hand, are characterised by levelling of the oblique case form in the singular paradigm, cf. Bavarian *Wiesn* 'lawn', and *Zungn* 'tongue' (Hartweg & Wegera 2005: 153).

In contrast, the shift of MHG masculine weak nouns into the strong inflection class involved both developments; that is, weak nouns could either simply lose their oblique case inflection (as, for example, MHG *hane* > NHG *Hahn* ‘rooster’) or, if inanimate, undergo paradigm levelling, with the nominative changing to match the oblique case form (e.g. MHG *tropfe* > NHG *Tropfen* ‘drop’). For a small number of masculine nouns, the original weak noun and the levelled form co-exist in the contemporary language (e.g. *Glaube/Glauben* ‘belief’), with the genitive singular of the weak noun formed by means of an augmented genitive suffix *-ns* (e.g. *Glaube-ns*). The augmented suffix seemingly combines the weak and strong genitive marker, but a form like *Glaubens* may in fact stem from a morphological reanalysis of the genitive form of the strong noun *Glauben*, which assumed *Glaube* to be the base form of *Glaubens* so that the *-n* had to be interpreted as part of the inflectional affix.

As for the MHG neuter weak nouns (a sub-class composed of only four nouns, viz. *hërze* ‘heart’; *ôre* ‘ear’; *ouge* ‘eye’; and *wange* ‘cheek’; Schmid 2009: 158), most members shifted directly to the strong paradigm, with no paradigm levelling taking place.³⁴ The noun *hërze* (> NHG *Herz*), however, occupies a special position since it retains the weak inflectional marker *-(e)n* in the singular paradigm (cf. *Herz-en*, ‘heart-SG.DAT’) while forming the genitive singular by means of an augmented genitive suffix (*Herz-ens*).

The proposal made here is that, contrary to what is claimed in Lincoff (1963: 48), Yiddish, like German, preserved a declension class of weak nouns, which is characterised by suffixation with *-ns* in the genitive singular, and constituted by the inflecting masculine nouns (*tate* ‘father’; *zeyde* ‘grandfather’; *rebe* ‘(traditional) rabbi, teacher’; *yid* ‘Jew, man’; *mentsh* ‘person’) and the neuter noun *harts* ‘heart’.³⁵ The postulated genitive suffix *-ns* corresponds to the augmented genitive marker found in ENHG forms cognate with some of the Yiddish weak nouns, viz. *Jüdens* (von Zesen 1971: 213), *Mynschens* and *Herzens* (Wegera & Solms 2000: 1543). As noted by Solms and Wegera (1993: 171), augmented genitive suffixes started to appear with German animate weak nouns in the fifteenth century. Fairly widespread in the sixteenth and seventeenth centuries, their use waned in the development to NHG, which saw *-(e)n* restored as the genitive

34. In the case of *wange*, the change in inflectional class membership was accompanied by a change to feminine gender.

35. Unlike NHG weak nouns, however, Yiddish weak nouns are not indexed by the nominative plural form as, with the exception of *yid* and *mentsh*, they do not take an *-n* suffix in the plural (cf. *tate-s*, ‘father-PL’; *hertser*, hearts.PL’).

singular marker.³⁶ The gradual disappearance of the augmented genitive marker (and return to a single genitive ending for weak nouns) was possibly the outcome of linguistic prescription (Krischke 2012: 76–77). Given, on the one hand, the language contact that existed between Yiddish and German, and, on the other, the fact that Yiddish was not affected by the recommendations of classical German grammarians, it seems feasible that Yiddish adopted and retained the augmented genitive suffix for weak nouns.

Yiddish feminine inflecting nouns, which either derive from German weak nouns (*mame* ‘mother’; *mume* ‘aunt’) or, as disyllabic trochees with the semantic feature [+ human] (*bobe* ‘grandmother’), match the prototypical template for a weak noun, show ‘mixed’ properties: while they inflect with *-n* in the dative singular just like weak nouns, they are not marked for the accusative singular and take *-s* rather than the augmented genitive suffix *-ns* when occurring as prenominal possessors. The inflectional behaviour of these nouns receives an explanation if, as in German, these originally weak feminine nouns shifted out of the weak declension class, losing the characteristic *-(e)n* inflection in the non-nominative cases, and (unlike in German) took on *-s* inflection in the genitive singular. To account for the presence of *-n* in the dative singular, it may be proposed that *-n* in the dative singular was reintroduced to nouns (including proper nouns) denoting family and community members, in line with the “clear tendency to maintain distinctive case marking for objects ranking high on the animacy hierarchy” (Albright & Fuß 2012: 276).

The picture that then emerges is that Yiddish nouns can be classified into three declension classes, as depicted in Table 3.

Table 3. Yiddish nominal declension classes

	Class 1 (default class)	Class 2 (fem. inflecting nouns; [+ human] proper nouns)	Class 3 (masc. & neut. inflecting nouns)
NOM	-Ø	-Ø	-Ø
GEN	-s	-s	-ns
ACC	-Ø	-Ø	-n
DAT	-Ø	(-n)	-n

36. But see Krischke (2012), whose corpus study of non-standard genitive marking in Modern German shows forms like *Menschens* to persist.

Class membership is predictable on the basis of gender, prosodic type and semantic properties: while disyllabic feminine close kinship terms ending in schwa and [+ human] proper nouns make up Class 2, and masculine and neuter close kinship terms/terms of address form Class 3, Class 1 can be regarded as the default class, encompassing all other nouns. Both Class 2 and Class 3 have their origin in the class of MHG weak nouns; nouns belonging to Class 1, on the other hand, pattern with the MHG strong masculine/neuter class in the realisation of their singular cases.

Understanding Yiddish to have maintained a system of declension classes, and, what is more, a distinct genitive case form, can then provide an answer to the question why some, but not all, inflecting nouns appear to have the dative singular suffix *-n* when occurring as possessors. Far from decomposing into a dative form + *-s* affix, Yiddish prenominal possessors are noun phrases marked for genitive case. Genitive case marking on the noun involves different allomorphs (*-s* and *-ns*), conditioned by declension class. The different genitive markers and declension classes have discrete historical roots, and reflect the transformations that occurred in the nominal systems of both Yiddish and German in the sixteenth and seventeenth centuries.

Concerning the question of what explains the replacement of *des* by *dem* as the definite determiner in masculine and neuter possessor DPs, Lincoff (1963: 54–55) offers the hypothesis that “the analogical extension of *dem* to gen.sg. is perhaps due to the relative infrequency of gen.sg. in Mod[ern] Yiddish”. Taken together with the fact that in late Middle Yiddish, *dem* had replaced (or at least was in the process of replacing) the earlier masculine accusative definite article *den* (Kerler 1999: 73), Lincoff’s statement may suggest that the extension of *dem* to the genitive singular was driven by paradigm uniformity constraints, since it resulted in a masculine determiner paradigm with only two distinct forms, viz. SG.NOM *der* and SG.GEN/ACC/DAT *dem*. The merger of *dem* and *des* in the neuter determiner paradigm similarly reduced the number of forms, with only SG.NOM/ACC *dos* and SG.GEN/DAT *dem* found in Modern Yiddish. However, here the merger did not create a single oblique form, and it may be questioned why it was *dem* rather than *dos* that was extended to the genitive singular. It is therefore worth considering in more detail the mechanisms by which the change from *des* to *dem* in both the masculine and neuter genders may have been effected.

Under the present proposal, the gateway to the Modern Yiddish state of affairs was supplied by Class 3 nouns, marked as genitive with the augmented suffix *-ns*. Once new genitive forms, such as *yid-ns* ‘Jew-SG.GEN’, came into the language, they could be interpreted not as containing an augmented genitive suffix *-ns*, but rather as the marker *-s* having attached to a form affixed with dative *-n*. The ‘resegmentation’ and ‘revaluation’ (Fertig 2013: 27) of the morphological make-up of

masculine and neuter genitive forms ending in *-ns* may have been aided by the identity of form between the OY (and MHG) weak genitive and dative singular adjective endings *-(e)n*, as well as the fact that the genitive feminine determiner *der* was, like its German cognate, syncretic with the dative form. Revaluation of *-ns* as including dative inflection would have led to the replacement of the old genitive definite article *des* (already on its way out in the *Tsenerene*) with the dative definite article *dem*, thereby giving rise to possessor DPs of the type exemplified by *dem khavers* ('the friend's) and *dem kinds* ('the child's), in which what looks like a dative definite article combines with a masculine or neuter non-inflecting noun marked with *-s*.

However, revaluation of forms like *yidns* did not lead to dative-marked possessor forms of feminine inflecting nouns (i.e. **mame-n-s* rather than *mame-s*) in the majority standard variety. This may suggest that revaluation was reversed in the majority variety; that is, while the masculine and neuter genitive determiners became syncretic with the dative, *-ns* itself was reinterpreted as a unitary suffix, with forms like *yidns* derived from the nominative base form *yid* by a single process of affixation.³⁷ Such resegmentation may have been motivated by four-part analogy: with the formative *-n* being absent in the genitive form of feminine and proper nouns (even though it occurs in the dative of these nouns), possessors like *der mames* provide no supporting evidence for an analysis of *-ns* as an affix sequence, but suggest that possessors are created by means of a single affix (*mame* : *der mame-s* :: *yid* : *dem yid-AFFIX*).

In other, non-standard varieties (labelled here Dialects 1 and 2; cf. fn. 21), revaluation and four-part analogy yielded different outcomes. First, in Dialect 1, resegmentation and revaluation of *-ns* resulted in common noun possessors that can be uniformly decomposed into a dative noun phrase + *-s*, e.g. *d-em tat-n-s*, 'the-M.SG.DAT father-DAT-s'; *d-er mame-n-s*, 'the-F.SG.DAT mother-DAT-s', with *-s* perhaps no longer constituting a genitive case suffix but a once-only marker of the syntactic dependency of the possessor on the possessum. In Dialect 2, four-part analogy resulted not in the reinterpretation of *-ns* as a unitary affix, but rather in the analogical extension of *-s* as genitive marker for all nouns. Dialect 2 thus has possessor forms like *der tate-s*, replacing earlier *dem tat-n-s*.

Figure 2 charts the proposed paths of development for Yiddish possessor marking in all three varieties, viz. Standard Yiddish, Dialect 1 and Dialect 2.

37. See Maiden (2016) for discussion of 'vacillation' in morphological (re-)segmentation of Romanian nominals. If vacillating segmentations are possible, resegmentation cannot be subject to unidirectionality but should be reversible.

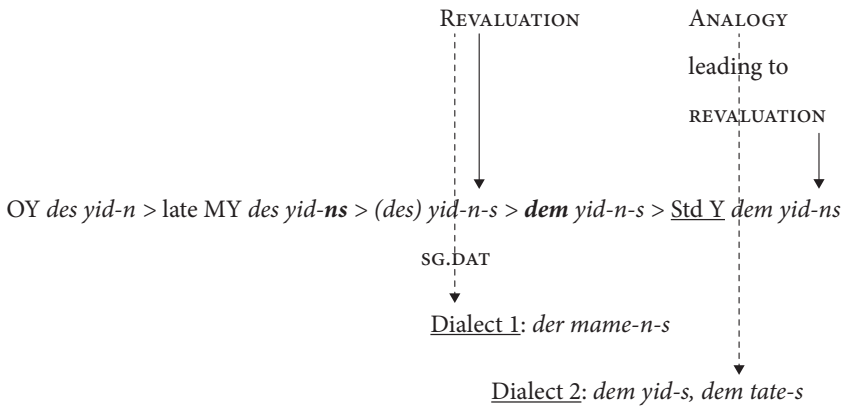


Figure 2. Proposed diachronic paths of development for Yiddish possessor marking

In conclusion, the Middle Yiddish textual evidence suggests that the transition from Middle to Modern Yiddish was characterised by a range of developments, related to, and to some extent paralleling, the evolution of the German declension system in the ENHG period. More specifically, it is claimed here that the data allow the following observations and hypotheses:

- Apocope led to the loss of overt genitive marking on feminine strong nouns, which subsequently adopted *-s* as exponent of genitive singular, thereby eliminating the distinction between strong masculine/neuter and feminine declension classes.
- The class of weak nouns became eroded, with only a small number of [+animate] masculine and neuter nouns remaining to be marked with a suffix derived from the genitive singular marker of the OHG *n*-stem class. The genitive singular affix attached to these nouns changed from *-(e)n* to ‘augmented’ *-ns*, which, as it increased the distinctiveness of the case ending, may be considered an instance of ‘syntagmatic profiling’ (Kürschner & Nübling 2011: 362).
- A concomitant of the change in genitive marking for weak nouns was the resegmentation of *-ns* as comprising the dative suffix *-n* + *-s*, which contributed to the loss of the Middle Yiddish genitive definite determiner *des*, and the appearance of the dative definite determiner *dem* in prenominal possessor DPs.
- Speakers of the majority standard variety reintroduced *-ns* as a weak genitive ending on the basis of analogy with the genitive forms of feminine inflecting nouns, which contain only a monosegmental affix (*-s*).

4.3 Summary

The focus of this section has been the question how possessor DPs were realised in the Middle Yiddish editions of the *Tsenerene*, and what diachronic path can be reconstructed that leads from the Middle Yiddish textual evidence to contemporary usage in the standard variety.

As suggested by the evidence from the *Tsenerene*, Middle Yiddish had

- distinct genitive forms of indefinite and definite determiners (*aines*, *des*), even if their use may have been in decline;
- declension-class based genitive allomorphy (*-s*, *-en*);
- considerable variation in the realisation of prenominal possessors (as concerns the presence/absence of genitive marking on the head noun and the accompanying determiner).

The system of declension, already unstable and variable in seventeenth-century Middle Yiddish, underwent significant change in the late Middle Yiddish period. More specifically, it is postulated here that:

- membership of the declension class of weak nouns was reduced to only a handful of predominantly masculine, [+ animate/ + human] nouns;
- weak nouns developed a new, augmented genitive marker (*-ns*);
- case syncretism increased in the determiner domain, leading to the loss of the old accusative definite determiner *den*, but also the collapse of the distinction between genitive and dative definite determiners (which may have been a by-product of the morphological resegmentation and revaluation of the weak genitive marker *-ns*).

The central observation and claim made here concerns the class of inflecting nouns, for which it is argued that they either share an origin as MHG weak nouns or were included in this class on the basis of phonological and semantic properties (disyllabicity, trochaic foot structure, human denotation) that align them with the ‘prototypically’ weak noun (cf. Köpcke 1995). The common origin and distinctive characteristics of inflecting nouns suggest that Yiddish has maintained a distinction between strong and weak declension classes, contra Lincoff (1963).

5. Conclusion

As set out in the Introduction, the question whether Yiddish possessive marking is an instance of genitive case may be answered in the affirmative if (i) Yiddish is a language with morphological case; (ii) the possessive marker shows affixal

properties; and (iii) the nominal to which the possessive marker attaches is not otherwise case-marked. This article argued that all three requirements are fulfilled.

With respect to (i), the traditional view has always been that Yiddish has a morphological case system, distinguishing nominative, accusative and dative in both the nominal and pronominal system. If we understand morphological case to involve alternations in the form of a noun phrase based on its grammatical function, the distinctions represented in the definite determiner and nominal paradigms given in Table 1 confirm this view.

As for (ii), when conceptualising the continuum between affixes and grammatical words along the distinctions of once-only marking vs. agreement, edge vs. head placement, and syntactic vs. morphological attachment (Börjars 2003: 141), there is sufficient evidence to characterise Yiddish possessive marking as affixal, since it co-occurs with (non-nominative/accusative/dative) case morphology in the possessor DP (i.e. Yiddish possessor phrases are not strictly marked 'only once'), attaches to a head noun (i.e. Yiddish does not license 'group genitives'), and exhibits variant phonological realisation (i.e. Yiddish possessor marking is not insensitive to the lexical nature of its host).

Finally, as concerns (iii), much of the argument made here for Yiddish possessive marking as a case of genitive has rested on the fact that the form a nominal takes in the possessive construction does not equate to a dative DP + *-s*, contrary to what is asserted in traditional grammars. More specifically, masculine and feminine nouns that optionally inflect for dative as well as proper nouns show the divergence between possessive and dative marking: while possessive marking of inflecting masculine nouns must involve the augmented suffix *-ns*, which seemingly contains the dative suffix *-n* (e.g. *yidns*, **yids*), the possessor form of proper names and the three inflecting feminine nouns can only have *-s* (e.g. **Dovidns*, *Dovids*; **mamens*, *mames*). The alternation between *-ns* and *-s* in the marking of possessors can be accounted for as a pattern of (genitive) case allomorphy conditioned by declension class; that is, nouns affixed with *-ns* belong to a separate class of predominantly masculine, [+animate/ +human] nouns, directly traceable to the class of 'weak nouns' in Middle Yiddish. Along with the claim that Yiddish distinguishes a genitive case, this article thus suggests that Yiddish has retained a system of declension classes, albeit one in which the class of 'weak nouns' has eroded even further than in its stock language and relative, German. Taking into account the diachronic origin of Yiddish inflecting nouns allows an analysis of the synchronic facts of possessive marking which captures both the behaviour of the possessive formative as a case-marking affix and its variation in form. Accordingly, the case of Yiddish genitive provides an example of diachronic considerations contributing to a theoretical understanding of synchronic grammar.

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Genitives and their functional competitors

Genitives and proper name compounds in German

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This paper deals with an issue related to the syntax-morphology interface, namely the comparison of proper name compounds and genitives in German. It has been claimed in the literature that proper name compounds have recently increased in use at the expense of the genitive. For this reason, proper name compounds are sometimes considered as competitors to the genitive. A prerequisite for this assumption is that both constructions are equivalent with respect to meaning and function. The paper examines the relevant properties of both constructions. It is argued that there is no true meaning equivalence between proper name compounds and genitives. However, specific subtypes of proper name compounds and genitives that exhibit a substantial amount of semantic overlap are identified. It is discussed under which circumstances they can be used interchangeably.

1. Introduction

This paper discusses the relationship between adnominal genitives and nominal compounds, in particular proper name compounds, in German. Obviously, adnominal genitives and nominal compounds resemble each other in that they both establish a relationship between two nominal entities. This can be seen, among other things, by the fact that genitives are often used as semantic paraphrases for noun-noun compounds, e.g. *Charakterstärke* ‘character strength’ – *Stärke des Charakters* ‘strength of character’, *Gegenwartsliteratur* ‘present literature’ – *Literatur der Gegenwart* ‘literature of the present’, *Erntemonat* ‘harvest month’ – *Monat der Ernte* ‘month of the harvest’ (examples taken from Motsch 2004: 396–416). On the other hand, compounds and genitives are quite different in nature as compounds are morphological entities but genitive constructions are phrases, thus syntactic entities.

Both in linguistic and lay linguistic literature the German genitive is often said to be declining. This (supposed) decrease is often attributed to the competition with the prepositional *von*-construction ‘*of*-construction’ which is regarded as

stylistically inferior to the genitive.¹ However, Scott (2014) recently has shown that contrary to common belief in present-day German there is no ongoing decline of the genitive case in favour of the *von*-construction. This holds even for informal spoken language, although the proportion of *von*-constructions in relation to the genitive is larger in informal spoken language than in other varieties. Still, the actual distribution rather results from older changes, the contemporary situation being quite stable.²

However, it is far less known that there is also another construction that is discussed as a potential competitor of the genitive already since the end of the 19th century, namely proper name compounds, viz. nominal compounds with a proper name as left constituent such as *Kennedy-Sohn* ‘Kennedy son’ or *Merkel-Besuch* ‘Merkel visit’. Briegleb (1932: 27–28), for instance, claims that proper name compounds are frequently used as replacements for the genitive because compounding is easier and requires less attention and syntactic knowledge of the speaker than the formation of the genitive:

Wir beginnen unsere Betrachtung mit dem Verluste der genitivischen Fügung. Wenn jemand zwei Briefe vor sich sieht und er fragt nach dem einen, so antwortet der Gefragte doch so: da ist der Brief Heinrichs oder Heinrichs Brief. Wie klingt es aber heute in der Flut der vom Papiere zu uns sprechenden und davon ausgehend nun auch schon vorwiegend in der gesprochenen Sprache? Ein Goethe-Gedicht, eine Stresemann-Rede, der Rathenau-Mörder, das Kant-Grab, das Bismarck-Wort. (...)

Der Gebrauch der Zusammensetzung ist nichts als der Ausfluß unserer Bequemlichkeit oder richtiger gesagt: Erschlaffung. Weil der Genitiv Sprachformungsarbeit erfordert, die Zusammensetzung aber fast gar keine, deshalb ist die große Menge so leicht geneigt, die richtige, bisher lebendige Form preiszugeben.

‘We start our observations with the loss of the genitive. If someone has two letters in front of him and asks for either of them, the person addressed would answer as follows: there is the letter of Heinrich or Heinrich’s letter. But how does it sound today in written language and, coming from that, also mostly in spoken language? A Goethe poem, a Stresemann speech, the Rathenau murderer, the Kant grave, the Bismarck word. (...)

1. There is a vast amount of lay linguistic, prescriptive and linguistic literature on this issue, which cannot be reviewed in the context of the present contribution. For an overview see Scott (2014).

2. This holds for Standard German. In many German dialects, on the other hand, the genitive has disappeared.

The use of compounds is nothing but the product of our laziness, or more precisely: slackness. Because the genitive requires effort of linguistic formation, but compounding does almost not, the majority tends to abandon the correct form, which has been alive until now.

(my translation, BS)

Similar ideas can already be found in Wustmann (1891), Briegleb (1928), and, more recently, in Zimmer (2006: 190–192).

In fact, it is easy (in particular in language of the press) to find examples of proper name compounds that seem to be fully equivalent to a possible corresponding genitive phrase, as in (1), or examples where both proper name compounds and genitives co-occur within the same context without any apparent meaning difference, as in (2) (in both orders, i.e. either with the genitive or the compound occurring first).

- (1) a. *Firma von Clooney-Freundin gratuliert zur Verlobung*³
'company of Clooney girlfriend congratulates on engagement'
- b. *Dortmund bestätigt Götze-Wechsel zu Bayern*⁴
'Dortmund confirms Götze move to Bayern'
- (2) a. *Doch warum wählten Merkels Berater überhaupt das Angie-Lied? Wohl bis heute konnte keiner der Merkel-Berater den traurigen Angie-Songtext richtig übersetzen.*⁵
'But why did Merkel's advisors choose the Angie song in the first place? Probably until today, none of the Merkel advisors could translate the sad Angie lyrics properly.'
- b. *Die zögerlichen Reaktionen der Bischöfe im Zusammenhang mit der Merkel-Kritik haben ja gezeigt, dass hier ein Riss durch die Kirche ging. Der Vorsitzende der Bischofskonferenz beeilte sich zu betonen, er habe „Verständnis“ – nicht etwa für das Vorgehen des Papstes, sondern für Merkels Kritik.*⁶
'The hesitant reactions of the bishops regarding the Merkel criticism showed disagreement within the church. The chairman of the bishop conference quickly emphasized he did "understand" – however not the actions of the pope but Merkel's criticism.'

3. <<http://www.spiegel.de/panorama/leute/george-clooney-firma-von-amal-alamuddin-gratuliert-zur-verlobung-a-966558.html>> (1 March 2015)

4. <<http://www.spiegel.de/sport/fussball/fussball-bundesliga-bvb-bestaetigt-goetze-wechsel-zu-bayern-a-895938.html>> (1 March 2015)

5. <<http://www.hairweb.de/wahl.htm>> (1 March 2015)

6. <<http://www.kathnews.de/merkels-papstkritik-erscheint-wie-eine-art-versuchsballon>> (1 March 2015)

As exemplified by the examples in (1) and (2), names in proper name compounds often refer to well-known personalities, although proper name compounding is not restricted to personal names, as will be illustrated in Section 2.2. Also, a high level of familiarity of the referent is not a necessary requirement for coining or using proper name compounds as long as the referent can be identified by the designated hearer. Consider Example (3a), where the identity of the otherwise unknown referent becomes clear in the preceding context (not printed here for reasons of space), and (3b), taken from a personal e-mail, referring to a mutual colleague of the writer and the addressee.⁷

- (3) a. [...] *Der Gerichtsmediziner fand nach Angaben von Chris Stewart, dem Anwalt der Scott-Familie, fünf Schusswunden.*⁸
 '[...] According to information from Chris Stewart, lawyer of the Scott family, the coroner found five gunshot wounds.'
- b. *Hast Du Dir das Malte-Video schon angesehen?*
 'Did you already see the Malte video?' (i.e. the video starring Malte)

In general, proper name compounding has received very little attention in the literature. At the same time, the few existing studies all claim that the use of this pattern has rapidly increased recently. Interestingly, this claim can be found as early as in 1891 but also several times in the course of the 20th century. However, so far there are no quantitative studies supporting this claim.⁹ Importantly, proper name compounding is regularly considered as a competitive pattern to several syntactic patterns, one of which is the genitive (cf. Kann 1972; Sugarewa 1974; Wildgen 1981). Also, it has been consistently maintained that the alleged increase of proper name compounding is due to the influence of English.¹⁰ However, in the context of the present paper I will discuss neither any other potential competing patterns nor the interference of English, but restrict the discussion to the comparison of proper name compounds and the genitive in German. The aim is to describe the similarities and differences

7. Furthermore, if proper name compounds become lexicalized, the referential meaning of the proper name usually gets lost, cf. Section 2.2.

8. <<http://www.spiegel.de/panorama/justiz/charleston-usa-michael-slager-nach-schuessen-auf-schwarzen-wegen-mordes-angeklagt-a-1027439.html>> (21 August 2015)

9. For a quantitative study on the diachronic development of proper name compounds in English, see Rosenbach (2007).

10. This claim is literally found in all studies on proper name compounds mentioned here (cf. in particular Carstensen & Galinsky 1963; Carstensen 1965). However, to my knowledge, Zifonun (2010a) is the only study that discusses the differences and similarities between the English and the German pattern with respect to the possible influence of English on the German pattern in more detail.

between both constructions in present-day language in detail and to specify to what extent and in which regard they can be said to be equivalent, which would be the prerequisite for the alleged competition between the two constructions.

The paper is structured as follows: Section 2 introduces the morphological and syntactic properties of compounds and genitives with proper name dependents. Section 3 then discusses the respective semantic properties. In Section 4, the alleged equivalence of the two constructions is further examined and discussed. Section 5 introduces further restrictions on proper name compounding. Section 6, finally, is a brief conclusion.

2. Genitives and compounds: Morphological and syntactic properties

This section describes the morphological and syntactic properties of genitive constructions and nominal compounds, in particular genitives and compounds with proper names. Pairs such as *Merkel-Berater* ‘Merkel advisor’ – *Merkels Berater* ‘Merkel’s advisor’ seem to be almost identical, the only difference being the genitive *s*-marker.¹¹ However, they also differ with respect to stress as the compound has stress on the left constituent, i.e. on the proper name, whereas the genitive has main stress on the head. Further morphological, syntactic and graphematic properties are discussed in the following. As in general only little is known about proper name compounding, this pattern is introduced in some more detail as a basis for the subsequent discussion.

2.1 Genitives

Starting with genitive constructions, there are two important (and intertwined) differences between genitives with proper name dependents and genitives with common noun dependents. The first difference relates to the position of the dependent relative to the head as either pre- or postnominal. The second difference concerns the form and the status of the genitive marker on the (proper) noun. Both aspects have been discussed in the literature at length (for references, see below), so I will only give a brief description here.

In present-day German, there is a very strong tendency for common noun genitive dependents to appear in postnominal position, e.g. *der Vorschlag des Präsidenten* ‘the proposal of the president’. Common noun genitives in prenominal position are stylistically highly marked as archaic (??*des Präsidenten Vorschlag*)

11. The status of the *s*-marker is discussed further below.

and do therefore occur very rarely, cf. Duden-Grammar (2009: 825ff), for instance. Proper name genitive attributes, on the other hand, occur basically both in pre- and postnominal position, with various factors determining this distribution, such as the onomastic type of proper name involved, the phonological and morphological properties of the proper name, as well as the particular semantic type of genitive (cf. Eisenberg & Smith 2002; Fuß 2011; Nübling, Fahlbusch & Heuser 2012; Peschke 2014). For example, many toponyms can occur both prenominal and postnominally (e.g. *Polens Flüsse, die Flüsse Polens* ‘Poland’s rivers’). Similarly, personal names, if they are morphologically complex, can usually occur both in prenominal and postnominal position (*Richard von Weizsäcker’s Hund* ‘Richard von Weizsäcker’s dog’ vs. *der Hund Richard von Weizsäcker’s*) whereas first names have a strong tendency for the prenominal position (*Richards Hund* ‘Richard’s dog’ vs. *?der Hund Richards*). Names that are acronyms, on the other hand, are usually excluded in prenominal position and can only occur postnominally, e.g. **FBI’s Hauptgebäude – das Hauptgebäude des FBI* ‘the main building of the FBI’.¹²

Regarding the second aspect, that is, the formal marker of the genitive, proper names differ from common nouns in that the genitive is invariably marked by an *s*-suffix. This holds even for feminine nouns that do not have a genitive *s* in their case paradigm. Therefore, following similar analyses for English and the Scandinavian languages, it has been claimed recently that the *s* occurring with proper names in German should not be regarded as a case marker but rather as a possessive marker and that the apparent ‘genitive’ is not a proper case (cf. Fuß 2011; Plank 2011; Scott 2014; Ackermann, this volume, among others). This is also the view taken in the present paper. Therefore, in the following, the use of the term ‘genitive’ in connection with proper name dependents should rather be understood as a general cover term that also includes the possessive *s*-construction.

12. It is not entirely clear how this restriction can be explained. Many acronymic names obligatorily take a determiner, such as **(das) FBI* or **(die) SPD*. However, in prenominal position proper names cannot co-occur with a determiner (cf. Section 4) which then explains why the prenominal position is excluded for those acronyms. A few acronymic names do not have an obligatory determiner. Accordingly, they can be used in prenominal position, e.g. *HPs Drucker* ‘HP’s printer’ and *BMW’s Zukunft* ‘BMW’s future’. However, these examples seem nevertheless marked to some extent. What is more, no examples of the prenominal construction can be found for other acronymic names without an obligatory determiner such as *DHL, KLM* or *BASF*, even in a huge corpus as the German DECOW14AX corpus (cf. Schäfer 2015) which contains more than 11 billions tokens. Thus, it can be concluded that the exclusion of acronymic names in prenominal position is not only due to the fact that many of them come with obligatory determiners but that there (also) seems to be a more principled restriction. For instance, regarding the behaviour of acronymic names without an obligatory determiner, analogy with (the more frequent) acronymic names with determiners could possibly play a role.

2.2 Compounds

In nominal compounds, various kinds of proper names can occur in the modifier position: simplex proper names, i.e. proprial lemmas (which are further differentiated in (4) according to the onomastic type) and different kinds of syntactically complex proper names as well as acronyms, cf. (5). (Note that neither list is complete. The issue of hyphenation and the relevance of lexicalization are discussed below.)

- (4) a. First name: *Adamsapfel, Elisabeth-Preis*
'Adam's apple', 'Elisabeth price'
- b. Family name: *Bunsenbrenner, Brechtforscher*
'Bunsen burner', 'Brecht researcher'
- c. Country name:
Shetlandpony, Israel-Lobby
'Shetland pony', 'Israel lobby'
- d. Place name: *Cayennepfeffer, Erfurt-Besuch*
'Cayenne pepper', 'Erfurt visit'
- e. Company name: *Commerzbank-Arena*
'Commerzbankstadium'
- f. Brand name: *Audi-Verkaufszahlen, Lego-Paradies*
'Audi sales volume', 'Lego paradise'¹³
- (5) a. First and last name: *Marc-Jacobs-Kampagne*
'Marc Jacobs campagne'
- b. First and complex last name:
Carl-van-der-Linde-Schule
'Carl van der Linde school'
- c. Close apposition: *Königin-Beatrix-Park*
'Queen Beatrix park'
- d. Acronyms:
FBI-Computer, EU-Büro
'FBI computer', 'EU office'

As can be seen from these examples, proper name compounds are often hyphenated. In general, there are several reasons for the use of hyphens within nominal compounds and they sometimes coincide in proper name compounds. Firstly, hyphenation is often found with ad hoc formations. Secondly, hyphenation is a typical property of nominal compounds with formally deviant constituents such

13. The onymic status of brand names is notoriously difficult, as they behave like common nouns in many respects, cf. Ronneberger-Sibold (2004), for instance. See also fn. 19.

as abbreviations, acronyms and loanwords. Thirdly, hyphenation is used in highly complex compounds, e.g. compounds with phrasal modifiers. In all of these cases, the function of the hyphen is to make the internal structure of the compound more obvious by marking the constituent boundaries, either because the overall structure is very complex or because particular constituents are unknown or obscure to the reader. This is particularly relevant with respect to proper name modifiers: only a very small part of all existing names of individuals form part of the general lexicon of a language. The inclusion of a name in the lexicon depends primarily on the position and importance the individual (whether it is a person, a country, a river, a club etc.) has either for the speaker community or for the individual speaker. Speakers encounter new names on a daily basis. This means that only a small percentage of all existing names is known beforehand to language users. For this reason, it is necessary that proper names can easily be recognized. An important means for easy recognition is to keep the form of the proper name unchanged and/or discrete. In recent studies, it has been shown that several peculiar morphological properties of proper names can be explained with reference to this functional need, which is often referred to as ‘morphological scheme constancy’. Among these properties are the general deflection of proper names, the invariant plural marking with *s*, and the genitive-*s*-omission (cf. Nübling & Schmuck 2010; Nübling 2014; Ackermann & Zimmer 2017; Ackermann, this volume; Zimmer, this volume). It can be argued that the systematic use of hyphens in proper name compounds have a similar function, namely the preservation of a stable form of the name (cf. Gallmann 1989). There are two observations supporting this idea: (1) If a proper name compound becomes lexicalized and well-known in the speaker community, then the hyphen usually gets lost and the compound is spelled in one word.¹⁴ At the same time, however, the proper name meaning of the modifier constituent is gradually lost, that is, there are less and less speakers who know that the modifier constituent is a proper name and who/what it refers to, as in the following examples that denote a concept named after its discoverer, producer or inventor, cf. *Röntgenstrahlen* ‘Röntgen rays, i.e. x-rays’, *Weckglas* ‘Weck jar, i.e. preserving jar’, *Litfaßsäule* ‘Litfaß pillar, i.e. advertising pillar’. Without doubt, the majority of the speakers of German does not identify these modifiers as proper names. Rather, in such cases, the meaning of the modifier constituent is either empty, like a cranberry morpheme, or it has received a new lexical meaning, which materializes in deonymic formations such as *röntgen* ‘to x-ray’,

14. This holds for proper name compounds that are common nouns. Proper name compounds that are proper names themselves such as street names (*Julius-Leber-Straße*, *Kennedy-Brücke*, *Adenauer-Platz*) are often written with hyphens.

einwecken ‘to can’. Thus, the loss of the proper name status is accompanied by the loss of the hyphen because the preservation of the name as a discrete form is no longer necessary. (2) In proper name compounds, the proportion of linking elements is much lower than in common noun compounds. Linking elements can be found in about 40% of German common noun compounds (cf. Kürschner 2005, Krott et al. 2007).¹⁵ Novel proper name compounds, however, never occur with linking elements.¹⁶ With respect to lexicalized proper name compounds, there are no quantitative studies on the proportion of linking elements yet. However, the collection of proper name compounds in Köster (2003) can serve as a basis for a first approximation. Of these 750 proper name compounds, only about 6% have a linking element, e.g. *Hiobsbotschaft* ‘Job’s news’ or *Martinsgans* ‘St. Martin’s goose’. All examples with linking elements in Köster (2003) are strongly lexicalized with no reference of the proper name modifier to individuals whatsoever. In the literature, it is well-known that absence or presence of linking elements and the choice of the particular form of the linking element is strongly dependent on the modifier constituent (Fuhrhop 1998; Krott et al. 2007). The combination of the modifier constituent and the linking element(s) it can appear with has been labelled by Fuhrhop as compound stem form. However, proper name modifiers obviously usually have only one stem form, namely the bare stem without a linking element.¹⁷ Again, it can be argued that this particular property is related to the functional need of a stable, unchanged form of proper names (for a more detailed analysis cf. Schlücker 2017).

3. Genitives and compounds: Semantic properties

As already mentioned, genitives and compounds are semantically similar in that they both establish a relationship between two nominal entities. However, they are usually not equivalent, for several reasons. First, both genitives and compounds

15. The exact proportion of compounds with linking elements is 35% in Krott et al. (2007) and 42% in Kürschner (2005).

16. This can also be seen from minimal pairs such as *Heizungsrechnung* ‘heating bill’ and *Heizung-Rechnung* (‘Heizung bill’, i.e. a bill for or from someone called ‘Heizung’). Although the insertion of the linking element *s* is obligatory if the first constituent is suffixed by *-ung*, no linking element is inserted if this constituent is a proper name.

17. Koptjevskaja-Tamm (2009: 127–128, 2013: 257–258) makes similar observations for Swedish proper name compounds. In addition, she observes that proper name modifiers – contrary to common noun modifiers – never get truncated. Accordingly, she characterizes proper name modifiers as “morphologically inert”.

encode various semantic relations between the constituents which are not necessarily identical. These relations are discussed further down in this section. Second, there is a basic difference between genitives and compounds regarding their respective functions: compounds, as morphological structures, function primarily as naming devices whereas syntactic phrases describe entities of all kinds (cf. Downing 1977; Bauer 1988; Olsen 2000, among many others). More specifically, the typical function of genitives is identification or determination (e.g., Taylor 1996). Compare, for instance, the compound *Garagentor* ‘garage door’ and the genitive construction *Tor der/einer Garage* ‘the/a garage’s door’. As can be seen from these examples, the functional difference between compounds and phrases is crucially related to the interpretation of the dependent, as the modifier in nominal compounds is non-referential whereas the dependent of the genitive is interpreted referentially. Thus, *Garage* in *Garagentor* denotes an abstract concept but in *Tor der/einer Garage*, it refers to a specific garage, due to the status of *Garage* as a full NP in the genitive construction and as N in the compound.

Genitive constructions as discussed above are more specifically described as determiner genitives. In addition, in English (and to a somewhat lesser extent also in German) there is another group of genitives, termed ‘descriptive’, ‘classifying’ or ‘attributive’ genitives (cf. Huddleston & Pullum 2002; Rosenbach 2006; Zifonun 2010b; Gunkel & Zifonun 2011, for instance), some of the classical examples being *lawyer’s fee*, *mother’s milk*, *women’s magazine* in English and *Mann der Tat* ‘man of action’, *Mut der Verzweiflung* ‘courage of despair’ or *Beruf des Musikers* ‘profession of a musician’ in German. Here, the dependent is non-referential and it has a classifying function rather than a determining one, just like compound modifiers (*mother’s milk* is a particular kind of milk rather than the milk of a particular mother). Note also that the potential of genitives to serve as paraphrases for compounds as in the examples presented at the beginning of Section 1 (e.g. *Charakterstärke* ‘character strength’ – *Stärke des Charakters* ‘strength of character’) crucially hinges on the non-referential interpretation of the dependent: the definite determiner (*des*) is interpreted generically and the genitive attribute does not refer to a specific character of a particular person but to the concept of human character as such.

Turning now to the semantic subtypes of genitives, there are quite a number of divergent proposals on the number and nature of semantic types of the adnominal genitive in German, ranging between a handful and dozens of different types (cf. Scott 2014: 29ff for an overview), similar to the numerous classifications of the semantic relations in noun-noun compounds (cf. Downing 1977; Levi 1978; Ortner & Müller-Bollhagen 1991; Jackendoff 2009, among many others). The Duden-Grammar (2009: 824–832) suggests a list of nine genitive subclasses, cf. (6). Importantly, the first five subclasses (i.e., *genitivus possessivus*, *genitivus subjectivus*, *genitivus objectivus*, *genitivus auctoris*, *genitive of product*) are all

considered as possessive genitives in the broader sense. A further subclass, which is not mentioned in the Duden list, is the elective genitive, as in (7), which is sometimes regarded as a subtype of the explicative genitive.

- | | | |
|-----|------------------------|--|
| (6) | Possessive genitive | <i>der Koffer des Diplomaten</i>
'the suitcase of the diplomat' |
| | Subjective genitive | <i>die Freude der Kinder</i>
'the happiness of the children' |
| | Objective genitive | <i>der Überbringer dieser Nachricht</i>
'the bearer of this news' |
| | Authorial genitive | <i>die Sinfonien dieses Komponisten</i>
'the symphonies of this composer' |
| | Genitive of product | <i>der Komponist dieser Sinfonien</i>
'the composer of these symphonies' |
| | Qualitative genitive | <i>ein Mann mittleren Alters</i>
'a man of middle age' |
| | Explicative genitive / | <i>ein Strahl der Hoffnung</i>
'a ray of hope' |
| | Definitive genitive | <i>die Möglichkeit der Rückkehr</i>
'the possibility of return' |
| | Partitive genitive | <i>eine Tasse heißen Kaffees</i>
'a cup of hot coffee' |
| (7) | Elective genitive | <i>das Buch der Bücher</i>
'the book of (all) books' |

The terms 'subjective genitive' and 'objective genitive' indicate that in a corresponding verbal paraphrase, the genitive NP would be either the subject (e.g. *die Freude der Kinder* 'the happiness of the children': the children_{SUB} are happy) or the object (e.g. *der Überbringer dieser Nachricht* 'the bearer of this news': someone bears the news_{OBJ}). Thus, in contrast to the other subclasses, these subclasses are characterized not only on basis of their semantics, but also on morphosyntactic grounds (cf. Eisenberg 2006: 249f). The objective and in particular the subjective genitive are also the most frequent adnominal genitive types in present-day German, both in written and in spoken language. For instance, in the Modern German data in Scott (2014: 260), the proportion of the subjective genitive and the objective genitive is 73.4% and 13.4% respectively, with all other types being relatively marginal (qualitative: 1.4%, explicative: 4.8%, partitive: 7%, elective: 0.1%; total: 23,820 tokens).¹⁸

18. It must be noted, however, that Scott (2014: 39ff), although basically relying on the Duden classification, proposes a more concise list, thereby conflating the first, second and fourth class of the Duden list into the subclass of subjective genitive and the third and fifth class into the subclass of objective genitive.

The next question then is which of the semantic subclasses are also available for proper name genitives. As can be seen from (8), proper name dependents only occur in the first five subclasses which are exactly those classes that have been characterized as possessive in the broader sense above (which again equal the subjective and objective genitive in Scott's classification, cf. fn. 18).¹⁹ Note that some proper name dependents appear in prenominal rather than in postnominal position, due to their specific morphosyntactic properties as discussed in Section 2.1 above.

(8) Possessive genitive	<i>Peters Koffer</i> 'Peter's suitcase'
Subjective genitive	<i>die Freude der SPD</i> 'the happiness of the SPD'
Objective genitive	<i>der Überbringer der Mona Lisa</i> 'the courier of the Mona Lisa' <i>der Anhänger Kohls / Kohls Anhänger</i> 'Kohl's supporter'
Authorial genitive	<i>die Sinfonien Beethovens / Beethovens Sinfonien</i> 'Beethoven's symphonies'
Genitive of product	<i>der Komponist der Pathétique</i> 'the composer of the Pathétique'
Qualitative genitive	–
Explicative genitive /	
Definitive genitive	–
Partitive genitive	–
Elective genitive	–

Turning now to compounds, it can be observed that many of the implicit semantic relations that occur in common noun compounds can also be found in proper name compounds, cf. (9). As mentioned before, there are numerous classifications of the semantic relations in nominal compounds. Many of the relations given in (9) to (14) are similar to well-established proposals from the literature such as Downing (1977), Levi (1978), or Jackendoff (2009), but this list makes no claim to be complete. In the following, an example for each relation is provided both for common noun and proper name compounds.

19. There are, obviously, partitive constructions such as *eine Tasse heißen Caro-Kaffees* 'a cup of hot Caro coffee' or *ein Glas kalter Cola* 'a glass of cold coke'. However, these proper names are brand names and brand names often deviate in their behaviour from core proper names as they oscillate between common nouns and proper names. Rather than providing counter-evidence to the claim that there are no partitive genitives with proper names, such examples provide additional evidence for the idea that brand names are deviant.

(9)	HAVE	<i>Regierungspläne</i> 'government plans'
		<i>Merkel-Pläne</i> 'Merkel plans'
LOC		<i>Waldwiese</i> 'forest glade'
		<i>Irak-Krieg</i> 'Iraq war'
ABOUT		<i>Tierschutzstudie</i> 'study on animal welfare'
		<i>Berlin-Studie</i> 'study on Berlin'
MAKE		<i>Milchkuh</i> 'milk cow'
		<i>Mozart-Sinfonie</i> 'Mozart symphony'
SIMILAR		<i>Baumdiagramm</i> 'tree diagram'
		<i>Einsteinhirn</i> 'Einstein brain'

Note that some of the relations are reversible which means that both the modifier and the head constituent can realize either of the two arguments of the relation, for instance HAVE (α , β) as in *government plans* or HAVE (β , α) as in *picture book*. Thus, in the former case the possessor is realized by the modifier constituent, in the latter by the head constituent.²⁰ However, this does not hold for proper name compounds as they only realize HAVE (α , β). Furthermore, the SIMILAR relation is not exactly the same in common noun and proper name compounds. In common noun compounds, there is a similarity between the concepts denoted by the head and the modifier, e.g. *tree diagram*: a diagram that looks like a tree. In proper name compounds, however, the similarity holds between the concept denoted by the head constituent and a particular referent of the same concept in the possession of the individual denoted by the modifier. For instance, *Einsteinhirn* denotes the concept of a brain which is (with respect to its mental capacity) similar to Einstein's brain.

Interestingly, however, some of the relations that can be found in common noun compounds lack systematically in proper name compounds or are at least, as in the case of CAUSE, very rare (cf. 10):

20. The term 'reversibility' is used in Jackendoff (2009), but similar observations have been made before, for instance by Levi (1978).

- | | | |
|------|-----------|--|
| (10) | CAUSE | Sonnenbrand
'sun burn'
Kyrill-Schäden
'Kyrill damages' (damages caused by the hurricane Kyrill) |
| | MADE FROM | Apfelsaft
'apple juice' |
| | PURPOSE | Kopfschmerztablette
'headache pill' |

On the other hand, there are also relations that are specific (and exclusive) to proper name compounds, in particular the commemorative ('named after') relation (cf. Warren 1978: 226f; Ortner & Müller-Bollhagen 1991: 572f; Koptjevskaja-Tamm 2009: 125):

- | | | |
|------|-------------------------------|--|
| (11) | COMMEMORATIVE | |
| | Discoverer, inventor, founder | <i>Eiffelturm</i>
'Eiffel Tower',
<i>Nobelpreis</i>
'Nobel Prize' |
| | Place of invention | <i>Rhönrad</i>
'Rhön wheel'
(gymwheel invented in the Rhön region) |
| | Without inherent relation | <i>Mozartkugel</i>
'mozart ball'
(rum truffle with marzipan) |

Two further relations specific to proper name compounds are the LABEL and the AFFILIATION relation, cf. (12). Obviously, these relations depend on specific proper name classes, i.e. company names and institutions, respectively. However, this does not mean that all proper name compounds with such modifiers have these relations; compare for instance *EU-Kommissar* 'EU commissioner' (AFFILIATION), *EU-Büro* 'EU office' (HAVE), *EU-Markt* 'EU market' (LOCAL), *EU-Verhandlung* 'EU negotiation' (SYNTHETIC, see below).

- | | | |
|------|-------------|------------------------------------|
| (12) | LABEL | <i>Gucci-Tasche</i>
'Gucci bag' |
| | AFFILIATION | <i>FBI-Agent</i>
'FBI agent' |

In addition to nominal compounds with implicit semantic relations there is also a second group of compounds which lack such a relation. These so-called synthetic compounds have deverbal heads and the first constituent is either the internal or the external argument of the underlying verb, cf. (13). Thus, the relation between the first constituent (which is, exactly speaking, not a modifier constituent but an

argument) and the head is inherently determined by the meaning of the deverbal head: a conference organizer is someone who organizes a conference.

(13) SYNTHETIC

Internal argument	<i>Konferenzveranstalter</i> 'conference organizer' <i>Merkel-Anhänger</i> 'Merkel supporter'
External argument	<i>Königsbesuch</i> 'king's visit' <i>Diego-Rückkehr</i> 'Diego return'

Similarly, if the head constituent has an inherent relational meaning, as in (14), the exact meaning relation between the first and the second constituent is determined by the head's meaning and no additional semantic relation has to be derived. A president, for instance, is necessarily related to an institution or a company.

- (14) REL *Universitätspräsident*
 'university president'
 FBI-Chef
 'FBI boss'

Of all proper name compounds, those with the HAVE relation are most frequent. This is the result of a corpus study of German proper name compounds in the COW corpus (DECOW12, Schäfer & Bildhauer 2012) and the EUROPARL corpus (Koehn 2005), cf. Schlücker (2017). Both in a sample of 500 proper name compounds in the COW corpus and a sample of 1.000 proper name compounds in the EUROPARL corpus, the HAVE relation emerged as the most frequent relation, with a proportion of 19.8% (COW) and 26.5% (EUROPARL) of all proper name compounds. The distribution of the other semantic relations differs considerably among the two samples, probably (also) due to the different text types of the two corpora. Among the rather infrequent relations in both samples are the MAKE relation and the synthetic compounds with an external argument.

4. Semantic overlap between proper name compounds and genitives

After having reviewed the semantic subtypes of genitives and nominal compounds, in particular those with proper name dependents, the aim of this section is to discuss the semantic overlap between these two constructions (for a related discussion with respect to the identifying or anchoring function of proper name modifiers cf. also Schlücker 2013). Thus, with respect to the claim brought forward

in the literature that proper name compounds are a competitor to the genitive (cf. Section 1), we will first identify those semantic subtypes that occur both in compounds and genitives with proper name dependents. The second part of the section then discusses to what extent genitives and compounds of the same semantic subtype can be argued to be semantically equivalent.

As can be seen from (8), of all genitive types in German proper name dependents occur only in the first five subclasses, which are, however, by far the most frequent types. In addition to the possessive genitive, the subjective, the objective, the authorial genitive and the genitive of product have also been characterized as possessive in the broader sense. Therefore, the compound types that are semantically similar are obviously those with the HAVE relation as well as compounds with a relational head because the inherent relational meaning can be spelled out as a possessive relation, too (e.g. kinship terms: a daughter necessarily has a father).

Furthermore, the MAKE relation, which is reversible, corresponds to the authorial genitive (product – creator) and the genitive of product (creator – product). Besides, the result of the creation of an object (for instance a piece of music, a painting or a novel) can also be said to stand in a possessive relationship to its creator.

Finally, there is a correspondence relationship between subjective and objective genitives and synthetic compounds. In the case of synthetic compounds the meaning originates from the verbal predicate that underlies the deverbal head, i.e. the left constituent forms either the internal or the external argument of the underlying verb. Similarly, as described above, in subjective and objective genitive constructions, the genitive NP would be either the subject or the object of a corresponding verbal paraphrase, thus, semantically speaking, the external or internal argument. To summarize, semantic overlap with genitives can be found for the following compound types:²¹

- | | | |
|------|-----------|--|
| (15) | HAVE | <i>Merkel-Pläne – Merckels Pläne</i> |
| | MAKE | <i>Mozart-Sinfonie – Mozarts Sinfonie</i> |
| | REL | <i>FBI-Chef – Chef des FBI</i> |
| | SYN (int) | <i>Merkel-Anhänger – Merckels Anhänger</i> |
| | SYN (ext) | <i>Diego-Rückkehr – Diegos Rückkehr</i> |

21. Given these correspondences, a reviewer has suggested not to use the semantic relations HAVE, MAKE etc. for the classification of the compounds but rather the labels as defined for the genitive subclasses. Although I agree that this would probably make the comparison of the constructions at hand quite transparent, in view of embedding the analysis of proper name compounds in the general theoretical discussion of compound semantics, it seems reasonable to rely on the commonly used labels of nominal compounds, which include the semantic relations used here.

Thus, the first conclusion to be drawn is that there are some semantic subtypes shared by genitives and proper name compounds and that there might be competition between both patterns with respect to these types. However, both genitives and proper name compounds also have further semantic subtypes which cannot be realized by the other form.

The second question then is whether this does also mean that proper name compounds and genitives as in (15) are semantically equivalent.

As discussed in Section 3, a principled difference between genitives and compounds is that the genitive dependent is referential whereas the modifier constituent of compounds is interpreted non-referentially, denoting an abstract concept. However, proper names differ from common nouns in that they are inherently referential, at least in their primary use. If it is the case that they retain their referential meaning when occurring as compound constituents, then this basic difference does not apply. In fact, it seems reasonable to argue that the compound modifier *Merkel* in (16a) is referential, just as in the corresponding genitive in (16b).

- (16) a. *SPD kritisiert die Merkel-Pläne für EU-Wirtschaftsregierung scharf*
 ‘SPD criticizes the Merkel plans for EU economy government harshly’
 b. *SPD kritisiert Merckels Pläne für EU-Wirtschaftsregierung scharf*
 ‘SPD criticizes Merkel’s plans for EU economy government harshly’

Referentiality is usually tested by means of anaphoric reference, because referring anaphorically presupposes an antecedent that is established in discourse (cf. Ward, Sproat & McKoon 1991; Haspelmath 2011). (17) shows that anaphoric reference to proper name modifiers is possible, thereby supporting the view that proper names may retain their referential interpretation when used as compound modifiers (cf. also Schlücker 2013: 465–467).²²

- (17) a. *die Merkel_i-Pläne, die sie_i scharf verteidigt*
 ‘the Merkel_i plans which she_i strongly defends’
 b. *die Kinski_i-Tochter, die ihm_i nicht sehr ähnlich sieht*
 ‘the Kinski_i daughter who does not look very much like him_i’

Note that this does not hold for proper name compounds in general but that the referential interpretation depends on the particular semantic relation that holds between the compound constituents as well as on the particular use of the compound (see below). For instance, Zifonun (2010a) correctly points out

22. For examples of anaphoric reference to proper names as part of complex words other than compounds see Ward, Sproat & McKoon (1991) and Haspelmath (2011).

that proper names in compounds with a SIMILAR relation such as *Einsteinhirn* ‘Einstein brain’ are never referential but rather denote an abstract concept related to the respective individual. Accordingly, this proper name modifier cannot be anaphorically referred to, cf. (18).

- (18) **das Einstein_ihirn, auf das er_i stolz war*
 ‘the Einstein_ibrain he_i was proud of’

A second difference between compounds and genitives is that prenominal genitive constructions are inherently definite. For instance, an (archaic) prenominal genitive such as *eines Lehrers Haus* ‘a teacher’s house’ can only mean ‘the house of a teacher’, but not ‘a house of a teacher’. Compounds, on the contrary, are undefined with respect to their definiteness, i.e. whether they are definite or not depends on the preceding determiner. Importantly, prenominal proper name possessors cannot co-occur with a determiner, e.g. **das/*ein Peters Haus* ‘the/a Peter’s house’ (recall from Section 2.1 that prenominal proper name dependents are considered as possessors rather than as genuine genitives). The observation that these prenominal possessors obviously occupy the determiner position has led to an analysis of the *s*-marker as a clitic element filling the determiner position (Fuß 2011, see also Ackermann, this volume); alternatively, Demske (2001) has suggested that the possessor (i.e. the proper name) itself functions as a determiner). This means that prenominal proper name dependents in genitives have a double function as both possessors and determiners. The corresponding proper name compound modifiers, on the other hand, only function as possessors. In this case, the definiteness of the whole NP depends on the presence of a definite determiner. Thus, the alleged semantic equivalence between genitives and compounds with proper names is not only restricted to constructions with a possessive relationship in a broad sense (cf. 15), but it also only holds if the compound is used definitely, as in (1), (2) and (16).²³

With respect to the functional division of compounds and genitives discussed at the beginning of Section 3 this means that proper name compounds with the properties and the usage as outlined above are more like genitives, that is, they describe state of affairs (i.e. possessive relationships between two entities) instead of naming entities. As regards the initial question of the paper, we can conclude that there is no true meaning equivalence between both constructions which is why they are not generally interchangeable. As shown above, prenominal possessive (“genitive”) constructions and compounds differ fundamentally in that the former are inherent definite descriptions whereas the latter are not. Although this does not hold for postnominal genitive constructions, a further difference lies in

23. In 1(a, b), the determiner is missing because these are headlines.

the number and type of semantic relations that occur in both constructions. On the other hand, as we have seen above, both constructions are interchangeable in many instances and it can be argued that this is not by chance but that they systematically share certain properties which is why they can be said to exhibit a substantial amount of semantic overlap.

The observation that morphological and syntactic patterns might share a substantial amount of features is also relevant with respect to the demarcation of syntax and morphology. Although this question can only be touched upon briefly here, the data discussed in this paper suggest that there is not just one uniform morphological pattern of compounding and one uniform syntactic genitive pattern. Keeping in mind that there are also descriptive genitives which share their classifying meaning and the naming function with compounds (cf. Section 3) it seems that there are rather several subtypes of these two patterns and that each subtype shares some properties with another such that they form a continuum. Rosenbach (2007, 2010) has discussed this idea of shared properties and overlap between constructions that are usually regarded as distinct in great detail with respect to English in connection with the notion of ‘constructional gradience’. From this perspective, there is no strict division between a purely morphological and a purely syntactic pattern but rather a continuum of morphological and syntactic subtypes, with prototypical compounds at one end and prototypical genitives at the other, and less typical compound, possessor, and genitive constructions in between.

5. Restrictions on proper name compounding

Obviously, even under the restrictions outlined above not every possessive genitive can be transferred into an equivalent proper name compound which shows that there are further restrictions on the formation of proper name compounds at play. Importantly, these restrictions apply to proper name compounding in general (i.e. not only to those corresponding to a genitive) and most of them are probably pragmatic in nature.

First, as has already been mentioned in Section 1, the individual referred to by the proper name, be it a person, a location or other, is usually well-known in the respective discourse or speaker community.²⁴ However, as a result of this general tendency, the use of first names is much more restricted and they occur much less

24. As mentioned before, this does not hold for lexicalized proper name compounds.

frequently than family names,²⁵ as for the purpose of reference to a person, family names have a clearly predominant status compared to first names: the use of first names usually presupposes personal acquaintanceship whereas the family name is also used for more distant relationships, such as reference to a person in newspaper text. Accordingly, without further context the compound ??*Peter-Koffer* ‘Peter suitcase’ as corresponding to the possessive genitive *Peters Koffer* ‘Peter’s suitcase’ in (8) is much more marked than *Merkel-Koffer* (meaning ‘Merkel’s suitcase’) or *Müller-Koffer* (*Müller* being a frequent German family name) and would probably be ruled out by many speakers of German.

Second, as noted by one reviewer, compounds of the pattern [personal name + *Sohn* ‘son’] are perfectly fine whereas combinations with the head *Vater* ‘father’ seem to be much more marked (e.g., *Stoiber-Sohn* vs. ??*Stoiber-Vater*). In fact, this assumption can be supported by corpus data: a collection of about 115,000 German proper name compounds that have been extracted from the DECOW2012–00 corpus (cf. Schäfer & Bildhauer 2012) contains 47 compound types with the head lemma *Sohn* ‘son’, 139 with *Tochter* ‘daughter’ and 60 with *Kind* ‘child’ but only 17 with the head (lemma) *Vater* ‘father’, 20 with *Mutter* ‘mother’ and 6 with *Eltern* ‘parents’. The reviewer suggests that this difference might be due to a restriction according to which unique reference of the head rules out proper name compounding. However, rather than dealing with a semantic restriction of this kind, I think that these differences again can be explained on pragmatic grounds as indicated above: it is much more common to talk about children of well-known personalities than about their parents, among other things because mostly people become famous when they are grown-up. They remain in public consciousness and their children are often compared to them, while the public is less interested in their parents. What is more, examples such as (19) (Knut was a famous baby polar bear at the Berlin zoo) or *Zeus-Vater Kronos* ‘Zeus father Kronos’ and *Jesus-Mutter* ‘Jesus mother’ which are perfectly acceptable even without context show that there is no general constraint on the formation of proper name compounds containing heads with unique referents.

- (19) *Von neun Eisbären, die Knut-Vater Lars gezeugt hat, sind sieben vorzeitig gestorben.*²⁶

25. For instance, in the corpus study mentioned at the end of Section 3, the proportion of first names among all personal names in proper name compounds is only 9.3% in the DECOW corpus and 2.4% in the EUROPARL corpus, compared to 77.3% and 88.7% of family names (DECOW and EUROPARL respectively), cf. Schlücker (2017).

26. Die ZEIT, 30.03.2011

‘Out of the nine polar bears Knut father Lars has fathered, seven died prematurely.’

Finally, Zifonun (2010a: 176) suggests a preference hierarchy for personal names in proper name compounds according to which synthetic compounds and compounds which express an alienable possessive relation (e.g., *Merkel-Anhänger*, *Merkel-Pläne*) are preferred over those with an inalienable possessive relation (*Stoiber-Sohn*, ??*Merkel-Kopf* ‘Merkel head’). Note, however, that the latter are only dispreferred in comparison, not excluded.²⁷ Importantly, this preference hierarchy relates to the internal semantic relation and not to the properties of the head constituent. This can be seen from the examples (20) which express a relation of similarity or reproduction, not a possessive one, and they are perfectly acceptable.

- (20) a. (...) *und der Merkel-Kopf aus Marzipan haben auf der internationalen Süßwarenmesse ISM in Köln für viel Aufmerksamkeit gesorgt.*²⁸
 ‘(...) and the Merkel head made from marzipan have attracted a lot of attention at the International Sweets and Biscuits Fair ISM in Cologne’
- b. *Der Karl-Marx-Kopf ist das Wahrzeichen der Stadt Chemnitz.*²⁹
 ‘The Karl Marx head is the landmark of the city of Chemnitz’

To conclude, proper name compounding is subject to certain restrictions. Due to these (and probably other) restrictions, not every possessive genitive can be transferred into an equivalent proper name compound. However, these restrictions hold for proper name compounding in general and are not specific to those compounds that correspond to a genitive.

6. Conclusion

The purpose of this investigation was to analyse the similarities and differences between proper name compounds and genitives and to specify to what extent and in which regard they can be said to be equivalent. It has been shown that there is no true meaning equivalence in general between both constructions. However, particular kinds of proper name compounds and genitives (or, more precisely, the

27. Interestingly, synthetic compounds, although perfectly acceptable, are ranked rather low in frequency in the German COW corpus and the EUROPARL corpus, cf. Section 3.

28. <<http://www.pageinsider.com/odenwaelder-marzipan.de>> (24 August 2015)

29. <<http://de.dawanda.com/product/79652763-karl-marx-shirt-dunkelblau>> (24 August 2015)

possessive *s*-construction) exhibit a substantial amount of semantic overlap which makes them interchangeable under certain conditions.

To be sure, this does not say anything about whether or why there is competition between both forms or whether proper name compounding has increased over time at the expense of the genitive. It is also important to note that there are other non-prototypical uses of proper name compounds that do however not correspond to a genitive, because these compounds encode semantic relations that are not available for genitives, such as the locative relation and/or because the proper name modifier is not referential.

Many questions around this issue have not been answered yet and are left for future research. For instance, why do speakers opt to use proper name compounds instead of possessives (or, more general, syntactic patterns)? Possible reasons are that compounds are denser than genitives (although they are not shorter, in particular if they are used with a definite determiner) which might be related to the fact that the prototypical function of compounds is to label concepts, i.e. the naming function. On the other hand, with respect to certain kinds of proper names, compounds are even shorter, as it is the case with acronyms because these usually cannot occur preminally in the possessive *s*-construction. And finally, quantitative data are necessary in order to investigate the alleged increase of proper name compounding in the course of the 20th century and earlier.

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On the role of cases and possession in Germanic

A typological approach

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The Germanic languages exhibit several interesting developments with respect to genitive and ‘possession’. The genitive cannot be considered a structural case in line with the nominative or accusative, the function of which can often be expressed by word order alone. It has a very complex semantic status in its own right and shows several intersections with the semantics of the dative, also a formerly complex case. The transfer of possessive datives from Low German into the Mainland Scandinavian languages led, however, to language-internal typological inconsistency, as far as the possessive pronouns (3rd person) are concerned. Moreover, ‘possession’ may also be rendered through periphrastic constructions which display various realisations in the Scandinavian languages. Special emphasis is paid to the word order within noun phrases and to distributional restrictions. Morphological transparency, the emergence of a new possessive clitic (-*sa*) in Faroese and the inter/independency of pre- and postposed possessive constructions are also investigated. The conclusion focuses on the issue of whether these developments may be seen as a “progress in language” (Jespersen 1894) or rather as a “helix in language history” (von der Gabelentz 1901).

1. Introduction – road map

After presenting a short history of the development of the case systems in Germanic and describing the internal hierarchy within these cases, several important factors related to their inflectional morphology and semantic markedness are dealt with. The next two sections are devoted to (a) morphological transparency, (b) the factor ‘emphasis’ and (c) those supplementary periphrastic constructions that may be used to express ‘possession’ – also rated from a typological point of view. The subsequent section focuses on the left or right branching of genitive NPs and on group genitives, including factors such as ‘weight’ or ‘animacy’. In the

conclusion, some results of the historical development of possessive constructions are described in terms of over- and under-specification. Finally, this development will be evaluated in the light of the theses: (a) “progress in language” vs. (b) “helix in language history”.

2. Structural vs. non-structural cases

Grammars describing inflecting Germanic languages suggest that all four cases have the same relevance for indicating fundamental syntactic relations – but this view is not adequate. Cases differ considerably in their functions in discourse: some of them only reflect basic syntactic relations, triggered by the valency properties of the governing verb, others fulfil not only syntactic but also semantic functions as is typical of the genitive.

Thus, we have to distinguish between structural and non-structural cases. Nominative, accusative and dative (the vocative, ablative, instrumental and locative cases no longer exist in modern Germanic languages) may often be represented by their default position in word order (= structural cases) but the genitive case has no default topological position that is able to express its function in sentences sufficiently (= a non-structural case). In noun phrases (NPs), the *genitive* may occur both in pre- and postposed positions, though this does not make any substantial difference in terms of its grammatical function. The vacillation in distribution may, for example, be due to the length/weight or the complexity of the genitival NP-constituent, or due to the fact that it contains an animate noun and/or a proper name (cf. for English Rosenbach 2005, 2008, and 2014 or for Swedish Eggers 2008).

Since the default main clause word order of modern Germanic languages is V2,¹ the *nominative* case typically occurs in the preverbal position and the *dative* and *accusative* cases are to be found after the finite verb – disregarding some occasional marked syntactic positions such as V1 declarative sentences in Icelandic or extra-positions of object constituents in those languages which still have inflectional morphology such as Modern German, Icelandic or Faroese.

1. For a more detailed survey from a comparative perspective see De Vogelaer (2007). Not to forget: (i) English also permits V3 in main clauses starting with an adverb; (ii) V1 declaratives have become rare in modern Germanic languages (cf. for Swedish Lindström & Karlsson 2005).

The default word order is reflected in the *syntactic functions* of the main sentential constituents: the subject or adverbs precede the finite verb (V2) and the objects follow. The default or basic word order in sentences with ditransitive verbs is therefore: subject (S) – verb (V) – indirect object (IO) – direct object (DO), as in (1a). Any deviation from this order has to be marked overtly by prepositions, as e.g. in (1b) (a language with case marking) or in (2) (a language without case marking):

(1) a. Ger.

Ich kauf-e ihr ein Eis.
 1SG buy.PRS.IND-1SG her.SG.DAT.F an ice_cream.SG.ACC
 S V IO DO
 'I buy her an ice cream.'

b. Ger.

Ich kauf-e ein Eis für sie.
 1SG buy.PRS.IND-1SG an ice_cream.SG.ACC for her.SG.DAT.F
 S V DO IO
 'I buy an ice cream for her.'

(2) Swed.

Jag köper en glass åt henne.
 1SG buy.PRS.IND an ice_cream to her.OBL.3SG.F
 S V DO IO
 'I buy an ice cream for her.'

Verbs with *genitive objects* are relatively rare in modern Germanic languages. Only Icelandic (cf. (3)) and German (cf. (4)) show some residual structures:

(3) Icel.

María saknað-i göml-u daganna sárt. (Þráinsson 2005: 45)
 Mary miss.PST-3SG old-ADJ.PL.OBL days.PL.GEN bitter.ADV
 'Mary missed the old days bitterly.'

(4) Ger.

Ich gedenk-e seiner.
 1SG think.PRS.IND-1SG his.SG.GEN
 'I think of him.'

3. On the history and hierarchy of cases

3.1 On the nature of cases in Germanic

The case system and other grammatical categories in a group of languages that later have been called 'Germanic' are most likely due to language contact and especially

simplifying second language acquisition (see Braunmüller 2008a; Vennemann 2012). The various simplifications and reduction processes led in the end to a complete restructuring of this group of western Indo-European dialects. Due to this process, several (Indo-European) cases merged with other more elementary and therefore quite stable cases: the vocative with the nominative and the locative/ablative/instrumental with the dative. Only the least marked syntactic case, the accusative, remained in its basic syntactic function. In one of the remaining inflecting languages, the accusative developed more and more into a default or unmarked case where prepositions that were formerly governed by the genitive were merged in (cf. Far. *innan* ‘within’, *uttan* ‘outside’ or *millum* ‘between’: genitive > accusative; Thráinsson et al. 2004: 176–178).²

The other unaltered case is the genitive, which has, however, always been very complex in its semantic functions which could, for example, be ‘possessive’, ‘subjective’, ‘objective’ or ‘partitive’. The result of this restructuring process is, as already mentioned, that the new contact language Proto-/Early Germanic and most of its dialects only preserved three structural cases (nominative, dative, accusative) plus one basically semantic case (genitive). This fits other observations on similar language contact situations where the survival of grammatical categories was only guaranteed when they proved to be indispensable for expressing the most relevant grammatical structures, thus making them essential for non-native learners too.³ At the end, we notice three structural cases, typically realised by conventionalised fixed word order patterns and by one polyfunctional semantic case, the genitive.

3.2 Polyfunctionality

Moreover, a closer look reveals that all cases seem to be more or less polyfunctional, as far as the semantic relations are concerned: the *accusative* as the most unmarked case represents the constituent which is the object, the target or the

2. In German, it would be the dative: *wegen des > dem* ‘because of’ (cf. also the adverb *trotzdem* ‘in spite of that’).

3. When revisiting the treatment of various kinds of pronouns in the grammar of Germanic languages, I concluded: “this idea may lead to *rethinking grammar from an L2-perspective* which is no longer based on a fossilised view of grammar that is based on the traditional school languages (Classical) Latin and Greek but which never has been challenged. With this view in mind, there might be a chance to gain deeper insights into the system of languages when both the descriptive (typological) principles of grammatical codification and the foundations of the learners, more generally speaking the bi-/multilinguals, knowledge of grammar are brought together” (Braunmüller 2015: 26).

goal of an action, whereas the *nominative* case typically stands for the subject of an action, the topic in discourse or the agentive function.

The situation for the *dative* is more complex because this case displays both syntactic as well as semantic information: it has absorbed formerly independent syntactic cases (locative, ablative, instrumental) but it can also be used to express semantic functions, such as 'benefactive' (cf. (5)) or 'possessive' (cf. (6a/b) and (7)):

(5) Ger.

Peter gib-t sein-er Schwester ein
 Peter give.PRS.IND-3SG his-DAT/BEN sister.DAT/BEN a

Stück Kuchen.
 piece.ACC cake.ACC

'Peter gives his sister a piece of cake.'

(6) a. non-stand. Ger.:

Wem ist d-as Buch?
 who.DAT/POSS is.PRS.IND.3SG this-SG.NOM book.SG.NOM
 'Who owns this book?'

b. non-stand. Ger.:

D-as Buch ist mir.
 this-SG.NOM book.SG.NOM is.PRS.IND.3SG me.1SG.DAT/POSS
 'This book is mine.'

(7) Lat.

mihi liber est
 me.3SG.DAT/POSS book.SG.NOM is.PRS.IND.3SG
 'this is my book/this book belongs to me'

The *genitive* case stands thus for many divergent semantic functions, some of which are quite remote from what grammarians have generically called 'possession', for example the explicative, the partitive and, not to be forgotten, the objective genitive as in Ger. *Vaterlandsliebe*⁴ (cf. Lat. *amor* [SG.NOM] *patriae* [SG.GEN] '[the] love towards one's fatherland'), which clearly overlaps with the benefactive function of the dative.

To summarise, we observe a range of cases fulfilling quite divergent tasks in communication. Some of them, like the accusative and the nominative, stand for elementary *syntactic relations*, e.g. being the source or goal of an action (subject and object, respectively), whereas others, like the dative – and in other Indo-European languages the ablative and the locative – and especially the genitive,

4. Seen from a formal/morphological perspective, the *-s-* has to be considered a linking element.

have to be considered predominantly *semantic cases*, typologically fairly similar to case markers in languages such as Finnish or Hungarian, where these markers (though typically not prepositions) are used to render all kinds of semantic relations between the nominal constituents and the finite verb within a sentence.

Therefore, it does not make a great deal of sense to treat the genitive as one case out of four but rather as a semantic marker which has the capability to express apparently diverging grammatical functions (possessive, subjective, objective, explicative, qualitative, partitive, separative etc.). Thus the genitive represents the most complex and least specialised case marker in the Germanic language family where the fading out of its role as a ‘target’ in ditransitive verb constructions as listed in (8a) and (8b) does not really change this picture.

- (8) a. Ger.
Ich gedenk-e sein-er_{target} >
 1SG think.PRS.IND-1SG his-3SG.M-GEN
- b. Ger.
Ich denk-e an ihn.⁵
 1SG think.PRS.IND-1SG of him.3SG.M.ACC
 ‘I think of him.’

4. Inflectional morphology and semantic markedness

4.1 Inflectional marking

Several degrees of marking can be observed when analysing the case systems in Germanic. In almost all Germanic languages the nominative is unmarked (measured in terms of morphological markedness), disregarding certain masculine singular forms ending in {-z} in Ancient Germanic, {-r} in Old Norse or {-ur} in Modern West Scandinavian languages (Icelandic/Faroese): *gast-i-z* > *gest-r* > *gestur*_{SG.NOM} ‘guest’. Generally speaking, the accusative has become the default form that is often unmarked and/or formally identical with the nominative. The dative is, if still existent, an overtly marked case but the marking (e.g. with *-i* or *-e* in the singular masc./neut.) is on the decline (cf. Ger. *im Bild_e sein* [figure] ‘being in the know’ vs. *im Bild_Ø sein* [concrete] ‘being in the picture’. In Low German the dative has generally been merged with the accusative, as in the pronominal system, for example, in *mi*_{SG.OBL.1P} / *di*_{SG.OBL.2P}).

5. Some might feel that there is a slight stylistic difference between these two constructions. The first may be seen as more formal or even archaic whereas the second one represents the default or colloquial construction.

The genitive is, however, always overtly marked as far as the so-called strong declensions and the pronominal classes are concerned: Swed. *mann* = *en-s*_{DEF.SG.GEN} – Icel. *man-s* = *in-s*_{SG.GEN = DEF.SG.GEN} – Ger. *des*_{DEF.SG.GEN} *Mann-es*_{SG.GEN}, Swed. *hus* = *et-s*_{DEF.SG.GEN} – Ger. *des*_{DEF.SG.GEN} *Haus-es*_{SG.GEN} – Icel. *hús(s)* = *in-s*_{SG(.GEN) = DEF.SG.GEN}; Swed. *bord* = *en-s*_{PL = DEF.PL.GEN} – Icel. *borð-a* = *nn-a*_{PL.GEN = DEF.PL.GEN} ‘of the tables’). Meanwhile in (still) inflecting languages the genitives do not occur in the so-called weak declension classes which have followed the *Casus rectus/obliquus* Principle ever since: Ger. *der Hase*_{SG.NOM}, *des Hasen*_{SG.GEN}, *dem Hasen*_{SG.DAT}, *den Hasen*_{SG.ACC}; *die Hasen*_{PL.NOM/ACC}, *der Hasen*_{PL.GEN}, *den Hasen*_{PL.DAT} or Icel. *auga*_{SG.OBL} whereas the definite inflexion again shows an overt genitive case marking: Icel. *auga* = *n-s*_{SG.OBL = DEF.SG.GEN} ‘of the eye’; cf. also Ger. [*des*] *Herzens*_{SG.GEN} ‘of the heart’).

4.2 Reflexivity in pronominal systems

But even if the inflectional markings in Germanic are generally⁶ on the decline, the distinction between the oblique cases on the one hand and the subject case on the other will be maintained in the personal pronominal systems: Dut. *hij/ie* – *hem/m*; Swed. *han* – *honom*; Dan. *han* – *ham* ‘he – him’ (all these oblique forms can be traced back to datives). Since the genitive forms in proper nouns, kinship terms (Ger./Eng. *Peter*[']s; Ger. *Vaters*s) and in the pronominal systems (*his*, *her*, *its*; Ger. *sein*, *ihr*, *sein*) never vanish, they remain distinct from all other cases and are always overtly marked, either expressing ‘possession’ and, in the case of the pronouns, additionally ‘reflexivity’.

Moreover, forms rendering a diverging non-reflexive possessive function may occur in the third person, derived from demonstrative pronouns: Ger. *dessen*, *deren* [SG.M/N; PL] ‘of him, her/them’. Incidentally, Latin shows a parallel development when distinguishing between (a) [+ reflexive] *suus*, *sua*, *suum* and (b) [– reflexive] *eius* possessive pronouns: (a) *me-us* – *tu-us* – *su-us* | *noster*... – *vester*... ‘my – your – his/her | our – your’ vs. (b) *eius* ‘one’s’, which is non-inflecting, though *-us* appears to be a ubiquitous inflectional marker. *Eius*_{SG.POSS} belongs to the paradigm of the simple demonstrative pronoun *is* – *ea* – *id* ‘this’_{–SG.NOM-M/F/N}.

In Scandinavian languages, some non-reflexive genitive forms are derived from personal pronouns marked with an inflectional genitival *-s*: Swed. *han* [he_{SG.NOM}] + *-s* [s_{SG.GEN}] > *hans* [he_{SG.POSS.M}] ‘his’, in Faroese even with a double genitival marking: *han-n* [he_{SG.NOM.M}] + *-s* [s_{SG.GEN.M(/N)}] + *ar*_{SG.GEN.M(/F)} + *a*_{OBL-ADJ} > *han[s]ar[a* ‘his’. But the feminine forms in Scandinavian are derived from the dative or

6. The only exception is Modern Icelandic (and to a certain extent Faroese as well) due to a very conservative language policy that tries to inhibit, at least for the written language, any changes in the grammatical system.

oblique forms: Swed. *henne* [$her_{SG.OBL.F}$] + $-s_{SG.GEN}$ > *hennes* 'her', Far. *henn(i)* [$her_{SG.DAT.F}$] + $ar_{SG.GEN}$ + $a_{OBL.ADJ}$ > *henn[ar]a* 'her' ($-ar$ is a co-occurring singular genitive marker in Old/Western Scand. varieties, while the $-a$ has to be considered an adjectival suffix), obviously due to the possessive function of the dative case, which results in a kind of double case marking: *han*_{SG.3P-M} + two genitive markers $\{-s\}$ + $\{-ar\}$ > *han[s]ar[a]* 'his'. These forms are functionally closely related to certain constructions in modern colloquial German. There, the dative may be used as an emphasising alternative, predominantly connected to simple demonstrative, less to personal pronouns (as listed in (9)):

(9)	<i>dem</i>	<i>sein</i>	<i>Bruder</i> 'his brother'
	<i>der</i>	<i>ihr</i>	<i>Bruder</i> 'her brother'
	<i>denen</i>	<i>ihre</i>	<i>Kinder</i> 'their children'
	dem.pron.DAT	poss.pron.	noun
	<i>ihm</i>	<i>sein</i>	<i>Bruder</i> 'his brother'
	<i>*ihr</i>	<i>ihr</i>	<i>Bruder</i> 'her brother'
	<i>*ihnen</i>	<i>ihre</i>	<i>Kinder</i>
	pers.pron.DAT	poss.pron.	noun

The prohibited combinations **ihr ihr* and **ihnen ihr* are obviously due to unwanted morphological doubling which impedes smooth decoding. *Ihm* [$him_{SG.DAT.M}$] *sein* [$his_{SG.POSS.M}$] *Bruder* is, however, not excluded because both forms are formally clearly distinct from each other.

5. Morphological transparency, emphasis and periphrastic constructions

5.1 Morphological marking

Languages like the Scandinavian ones, which used to distinguish overtly between reflexive and non-reflexive possessive pronouns, have had to derive the (non-inherited) non-reflexive forms by derivation from other pronouns. In contrast to the inherited reflexive possessives (cf. Swed. *sin/sitt*_{SG.POSS.UTR/N} – *sina*_{PL.POSS} 'his/her – their [+ reflexive]'), the non-reflexives receive their new function by adding an $-s$ (in Western Scandinavian languages also an $-ar[a]$) to either personal or (simple) demonstrative pronouns: Swed. *han* [$he_{SG.NOM.M}$] + s_{GEN} = *hans* 'his < *he + s', *henne* [$her_{SG.OBL.F}$] + s_{GEN} = *hennes* 'her' vs. *den/det* [$this_{SG.UTR/N}$] + s_{GEN} > Dan. *dens/dets* and Swed. *dess*, respectively. Moreover, the corresponding plural forms show double marking: Swed. *der* [$these_{PL}$] + $a_{PL.GEN}$ + s_{GEN} = *deras* (Dan. *der* + \underline{e} + s) 'their', where the $a(e)$ morpheme goes back to the medieval Nordic form *þeir(r)-a*_{PL-GEN}. The more recent s -suffix is due to interparadigmatic or emblematic case marking. Double case marking is not exceptional however, as

we have already seen with Swed./New Norw. (*nynorsk*) *der-a-s* ‘their’ or Far. *han-s-ar-a* ‘his’ and *henn-ar-a* ‘her’. This means that the Scandinavian languages display several layers in genitive marking: the oldest ones lost their original force, apparently due to phonological change (cf. the weakening as in Dan./Dano-Norw. (*bokmål*) *der* + e_{GEN} + s_{GEN}), and therefore had to be re-marked by an iconic cross-paradigmatic morpheme $-s_{\text{GEN/POSS}}$.

5.2 The emergence of a new morphological marker in Faroese

Uniqueness and/or emphasis related to ‘possession’ may also be of importance in a discourse, as can be seen from (colloquial) Faroese. There, we observe the emergence of a new possessive marker *-sa*, which can only be used in connection with individuals the speaker feels particularly related to, i.e. close relatives or friends (cf. (10)/(11)):

- (10) Far.
papa-sa skjúrta
 dad-SG.POSS.M shirt.SG.NOM.F
 ‘dad’s shirt’

- (11) Far.
Ólav-sa bilur
 Olaf-SG.POSS.M car.SG.NOM.M
 ‘Olaf’s car’

Even group genitives occur with this enclitic marker (cf. (12)/(13)):

- (12) Far.
[systir mín] sa vegna
 sister.SG.NOM my.SG.NOM s.POSS because_of [lit.: way.PL.GEN]
 ‘because of my sister’

- (13) Far.
[Ólavur á Heyggi] sa vegna
 Olaf á H.SG.NOM s.POSS because of [lit.: way.PL.GEN]
 ‘because of Olaf á H.’ (see Thráinsson et al. 2004: 64f., 249–251).

The etymology of *-sa* is not fully clear but it appears that *-sa* is directly related to the genitive singular morpheme *-s*.⁷ Additionally, this *s*-suffix received an emphasising weak-tone vowel in order to highlight the possessor more than an *s*-suffix

7. Petersen (2016) claims that is in fact the genitive plural morpheme *-a* and not one of the three weakly stressed vowels *i*, *u* and *a* (here: *a*) that is involved in this merging process: $-s_{\text{GEN-SG}} + -a_{\text{GEN-PL}} > -sa_{\text{POSS}}$. This means, however, that the suffix $-a_{\text{GEN-PL} > \text{SG}}$ has to be considered a new cross-paradigmatic morpheme.

alone could have done: the speaker can thus add more phonological weight to the possessor (cf. *Ólav(ur)²_{SG.NOM.M}sa_{POSS} bilur* vs. **Ólav_S bilur*) underlining the genitive function in the so-called weakly inflected nouns where all oblique cases in the singular paradigms are indistinguishable (cf. **abba_{OBL} hús_{NOM} > abbas_{GEN} hús_{NOM}* ‘grandpa’s house’). On top of that, the enclitic *sa*-suffix fits well with the paradigm of the so-called weak declension pattern of adjectives which is *-a* in all oblique forms, both singular and plural (cf. in Section 3.2 the *-a* in *hansara_{SG.POSS.3SG.M}* or in *hennara_{SG.3SG.POSS.F}*). NPs with *-sa* do not however occur in postposed positions: **bilur Ólavsa* is thus not possible and *??bilur Ólavs* ‘Ólaf’s car’ is not considered to be fully grammatical (Thráinsson et al. 2004: 249) either, because proper names usually occur to the left of the modified noun phrase, as is the case in English: *Peter’s car* (Anglo-Saxon genitive; postposed positions are excluded: **the car Peter’s*).⁸

5.3 More transparency through prepositional phrases

Along with the loss of case markers, most Germanic languages developed equivalent constructions which were supposed to render the meaning of these cases by means of prepositions. The general purpose was to get rid of underspecified formal syntactic case markers and to replace them by overtly specified and semantically based prepositional phrases. This language change also has to be seen as a part of a more general drift from synthetic to analytic grammatical representations. Furthermore, the genitive case was faced with its vanishing syntactic functions as most Germanic languages (except Icelandic, Faroese and German) had given up those verb constructions where one of the syntactic roles was represented by the genitive (cf. (14a/b) or (15a/b)).

8. A similar development in terms of *semantic bleaching* can be observed when analysing the history of ‘definiteness’ in Germanic. The inherited Proto-Germanic individualising function of the so-called weak adjective declension (ending in Proto-/Early Germanic in *-an*, related to the Hittite word formation element *-ant*) became unlearned or neglected due to imperfect language learning, with the result that (simple) demonstrative pronouns later had to take over this function in discourses. Today, the modern Mainland Scandinavian languages of Swedish and Dano-Norwegian use up to three different deictic elements to highlight definiteness, cf. Swed. *den_{SG.UTR} ART.SG.UTR här* [here] *bok = en* [book_{SG.UTR = DEF}] ‘this book (here)’ (for details see Braunmüller 2008b).

In the present case the Faroese possessive suffix *-s* gets reinforced and expanded by a weak tone vowel (*a*), which also occurs in the weak adjective declension, resulting in *-sa* because in some cases the inflexional marker *-s* does not seem to render an emphasised possessive relationship sufficiently.

- (14) a. Ger.
Ich gedenk-e *sein-er*_{target} >
 1SG think.PRS.IND-1SG his.3SG.M-GEN
- b. Ger.
Ich denk-e *an ihn*.⁹
 1SG think.PRS.IND-1SG of him.3SG.M.ACC
 'I think of him.'
- (15) a. Far.
biða *mín* >
 wait.PRS.INF mine.1SG.GEN
- b. Far.
biða *eftir mér*
 wait.PRS.INF after me.1SG.DAT
 'wait(ing) for me'

Some of the (semantic) functions of the genitive remain opaque, however. Moreover, a partial semantic overlapping occurs with the possessive dative. The tendencies behind this language change towards more analyticity and semantic discrimination were (a) to create more differentiated representations of grammatical meaning, (b) the splitting up of unspecified, i.e. semantically diffuse case markings and (c) the preference of clear semantic rather than of ambiguous syntactic markings in grammar.

As mentioned in Section 2.2, 'possession' was the common denominator both of the genitive and the dative case. This fact becomes more obvious when we also take periphrastic constructions into account; cf. (16a-d) to (17):

- (16) a. Ger.
mein *Buch*
 my.POSS.1SG book.SG.NOM/ACC
- b. Ger.
das Buch *ist* *mein-s*
 the book.SG.NOM is.PRS.IND.3SG mine.1SG-GEN
- c. Ger.
das meinige
 the mine.1SG.GEN
- d. Ger.
das Buch *von mir*
 the book.SG.NOM/ACC of me.1SG.DAT

9. Some might feel that there is a slight stylistic difference between these two constructions. The first may be seen as more formal or even archaic whereas the second one represents the default or colloquial construction.

- (17) a. Dut.
dat boek is van hem
 this book.SG is.PRS.IND.3SG of him.OBL.3SG.M
 'this is his book'

On top of that, colloquial Standard and Low German tend to prefer periphrastic dative constructions, as can be seen from (18a/b) and (19):

- (18) a. collGer.
ihm sein Buch
 him.SG.DAT.M his.SG.POSS.M book.SG.NOM/ACC
- b. LowGer.
em sin Book
 him.SG.OBL.M his.SG.POSS.M book.SG
 'his book'
- (19) a. collGer.
d-em Vater sein Buch
 the-SG.DAT.M father.SG.DAT his.SG.POSS.M book.SG.NOM/ACC
 'father's book'

The genitive is avoided as being too formal, outdated or bookish.¹⁰

10. This fits a more general trend towards avoiding genitives in prepositional phrases: Ger. *wegen des schönen Wetters*_{GEN} 'because of the fine weather' sounds somewhat bookish and is therefore being increasingly replaced with the dative: *wegen dem schönen Wetter*_{DAT}. But the dative after the preposition *trotz* 'in spite of' seems to be less frequent: *trotz des schlechten Wetters* vs. *trotz dem schlechten Wetter* 'in spite of the bad weather'.

In German only the dative can be used when the NP is represented by a personal pronoun: *wegen dir* (**wegen deiner*_{GEN} is no longer grammatical). But the editors mentioned a parallel construction with a postposed genitive from Bavarian: *zwegens*_{8=PREP-GEN} *deiner* [*your*_{POSS.2SG}] 'because of you'. If *wegen* is placed after the personal pronouns, only the genitive/possessive forms of these pronouns together with a linking morpheme {-et-} can occur: *mein-et/dein-et/sein-et/ihr-et/unser-et/eur-et|wegen* 'because of me/you_{SG}/him/her/us/you_{PL}'. Moreover, this morpheme has been co-occurring with *-halben*: *mein-et/dein-et...|halben* 'on my/your ... behalf' for a long time but these *-halben*-forms are now seen as outdated.

Both in German and Icelandic *wegen* and *vegan* can be respectively placed before or after the nominal/pronominal NP to be modified: Icel. *vegna þín* – *þín vegna* 'because of you' (cf. Þráinsson 2005: 118); Ger. *des schönen Wetters wegen* and *wegen des schönen Wetters*. Postposing *trotz* 'despite of' is, however, not possible. Instead a prepositional phrase has to be used: *des schlechten Wetters zum Trotz* 'despite the bad weather'. The noun *Trotz* '[lit.] defiance' still shows that *trotz* (and *wegen*) has been derived from a noun that became reinterpreted as a preposition in a genitive construction (for more details see Braunmüller 1982: 201–209).

6. Genitival and periphrastic constructions, seen from a typological perspective

6.1 Typological differences between West and North Germanic

West and North Germanic languages differ fundamentally in their typological profile, as far as the periphrastic possessives are concerned.¹¹

West Germanic languages prefer *monomorphemic* markers: Ger. *von*, Dut. *van*, Eng. *of* etc.: Ger. *im Zentrum von London*, Eng. *in the centre of London*. But German also allows inflected genitives with common NPs: *im Zentrum der Stadt* ‘in the centre of the town’. The postposing of genitive NPs, i.e. the head-modifier order, is default but preposed genitive NPs may occur as well, especially linked with proper names or kinship terms. Some uses appear outdated or may sound ‘poetic’, however ([?in der Stadt]_{PP.SG.DAT} *Zentrum* ‘in the centre of the town’, [*des Sommers*]_{SG.GEN} *letzte Rose* ‘the last rose of summer’).

In North Germanic languages *polymorphemic* periphrastic constructions occur when replacing inflectional genitives. As the distribution of those prepositions that are able to take over this function is in many cases idiosyncratic, we are faced with several prepositions accompanied by selection restrictions: *av/af* – *för*/*for* – *hos/hjá* – *på* – *till/til* etc. as in (20a/b):

- (20) a. Swed.
chef-en *för* *(*av/hos/på/till*) *avdeling-en*
 head-DEF of department-SG.DEF
 ‘the head of the department’
- b. Swed.
tak-et *på* *(*av/för/hos/till*) *hus-et*
 roof-DEF of house-SG.DEF
 ‘the roof of the house’

A special usage of the preposition *hjá* ‘at, by, with ...’ (and, to a certain extent, *i* and *á* with the same function as well) can be observed in the Insular Scandinavian languages. *Hjá* has become the default preposition for marking (predominantly unalienable) possession, cf. (21) and (22):

- (21) a. Far.
fótur-in *hjá mér*
 foot.NOM-DEF.SG.NOM with me.DAT.1SG
 ‘my foot’

11. A historically based typological survey on the distribution of the genitive phrases in Germanic can be found in Braunmüller (1982: 153–199).

- (22) a. Icel.
hár-ið hjá mér
 hair-DEF.SG.NOM/ACC with me.DAT.1SG
 'my hair'

This way of marking periphrastic possessives has been extended to the Danish vernacular, as spoken on the Faroe Islands (cf. (23)) which is in sharp contrast to the Danish standard spoken in Denmark (cf. (24)):

- (23) a. Far.-Dan.
bil-en af/hos[] ≡ Far. hjá Jógvan
 car-DEF.SG of/with John
 'John's car'
- (24) a. Dan.
Jógvan-s bil
 John.SG-GEN car
 'John's car'

Generally speaking, the genitive case in Faroese (and in New Norwegian as well) is on the decline and no longer occurs in the spoken varieties.

6.2 Restrictions within genitive NPs

In many Germanic varieties both constructions, the inflectional genitive and periphrastic possessive constructions may occur, both in pre- and in postposed positions in NPs. The distribution seems to depend on various parameters which interact with each other – with consequences for the acceptability of these constructions. In German, both preposed and postposed genitives may occur in NPs but with restrictions as far as proper names are involved: [*Peters/seines Vaters*]_{GEN} *Haus* ≈ *das Haus* [**Peters/seines Vaters*]_{GEN} 'Peter's/his father's house' on the one hand and *das Haus* [*von Peter/(dial.) vom Peter/von seinem Vater*]_{PP} on the other. Rosenbach (2005, 2008; cf. also the survey of 2014) has investigated those factors that seem to be relevant for the distribution of pre- vs. postposed possessives in English and she concluded that "animacy and weight are independent factors" (2005: 613), but that animacy may dominate weight up to a certain point. Inspired by Rosenbach's studies, Eggers (2008) analysed a bigger Swedish electronic newspaper corpus <<http://spraakbanken.gu.se>> but she came to the opposite conclusion for Contemporary Swedish: (a) animate referents tend to be rendered by genitives, even when the attributive has a heavy weight, (b) light genitival attributes can equally occur both with animate and inanimate referents, and (c) inanimate referents tend to co-occur with prepositional attributes, apparently following Behaghel's *Gesetz der wachsenden Glieder* (Law of Increasing

Constituents):¹² In Swedish, there is a clear adherence to *s*-genitives in the case of kinship terms (but not of subject relations or agentives) and, in contrast to Rosenbach's research on Modern English, Eggers has found evidence that 'animacy' and 'weight' are closely interdependent in today's Swedish newspaper texts.

7. Branching and weight in genitival noun phrases

7.1 Left branching and group genitives

West Germanic languages behave differently as far as left branching and group genitives are concerned. In English there does not seem to be restrictions for left branching with respect to group genitives: *[[the woman [living next door]]s]_{GEN} red car*. The genitival noun phrase can be expanded without creating grammaticality problems: *[[the very old handicapped woman [directly living next door]]s]_{GEN} red car*.¹³ In German, similar constructions cause grammaticality and acceptability problems and are therefore often avoided: *[[Walther]s]_{GEN} [von der Vogelweide Minnelieder]* was formerly considered the only way to express such genitival constructions. Today, group genitives like in English seem to be gaining ground and are currently fully accepted: *[[[Walther von der Vogelweide]s]_{GEN} Minnelieder]* (cf. Mackowiak 2008: 86). The speakers seem to feel that the full name has to be conceived as an entity/compounded name, which cannot be broken up into the proper name *Walther* and its augmentation *[von der Vogelweide]_{PP}*.

In North Germanic group genitives are also possible, apparently without restrictions, e.g. in Dan. *[[[dronning af Danmark]s]_{GEN} [nye bil]]* 'the queen of Denmark's new car' or Far. *[[[Jógvan í Lon Jacobsen]sa]_{POSS} [bilur]]* 'Jógvan í Lon Jacobsen's car'.

7.2 Right branching and possession

Default in West Germanic are periphrastic possessive constructions, formed by *of*, *van* or *von* or postposed inflected genitive noun phrases, as in Ger. *das Haus [seines Freundes]_{GEN}* 'his friend's house', which is the most unmarked possessive construction where no proper names or kinship terms are involved. Ger.

12. This law, actually a generalisation based on German texts, says that whenever two constituents co-occur in the same clause/sentence the shorter constituents will precede the longer ones.

13. More details on the nature of possessives with a special focus on English and its history can be found in Börjars, Denison & Scott 2013.

das Haus [von (dial. vom) *Peter*]_{pp} ‘Peter’s house’ is fully acceptable but the same phrase with reversed order *das Haus* [*Peters*]_{GEN} seems to be less grammatical for some native speakers, perhaps due to the informal address *Peter*.¹⁴ In Dutch, postposed genitives such as *het kennis* [*der natuur*]_{GEN} ‘the knowledge of the nature’, have the status of fossilised constructions today. Normally only postposed phrases built by means of the preposition *van* ‘of’ are the only acceptable way to place possessives. Additionally, Dutch and Low as well as Standard German accept periphrastic datives in their colloquial varieties: Ger. [(*dem*) *Vater*]_{DAT} *sein Hund* – Dut. [*vader*]_{OBL} *zijn/z’n hond* ‘father’s dog’. These possessive datives have been transferred to Scandinavia and ultimately became integrated into the linguistic systems there due to intense contacts with Low German speakers during the late Middle Ages and in Early Modern Times (Dan. [*far*]_{BEN < DAT} *sin gård* ‘dad’s farm’, code-copied from Low Ger. [*vader*]_{BEN < DAT} *sin hof*, where the subject takes the benefactive, formerly a dative role).

In North Germanic, especially in Dano-Norwegian, we meet a variety of typologically diverging possessive constructions, which are in part inherited but also borrowed from Low German/West Germanic. Besides the left branching possessives as in (25) we also find several right branching constructions as displayed in (26a/b).

- (25) Dan.
Olaf-s bil
 Olaf-GEN car
 ‘Olaf’s car’
- (26) a. Dano-Norw.
bil-en hans Olav
 car-SG.DEF his.POSS.3SG Olav
 ‘Olav’s car’
- b. Dano-Norw.
Olav sin bil
 Olav.BEN his.POSS.3SG car
 ‘Olav’s car’

Interestingly, two different possessive pronouns may occur, *hans* ‘his’, the [–reflexive] pronoun due to syntactic restrictions (specifically, no antecedent within the

14. The editors pointed out that phrases like *die Sehenswürdigkeiten Berlins* ‘the sights of Berlin’ or *die Rede Merkels* ‘Merkel’s speech’ are quite common. This observation may be due to more formal contexts but cannot be generalised: *Der Hafen Hamburgs in den Dreißigern* ‘The harbour of H. in the 1930s’ sounds outdated but fits nicely to a book published by Rademacher and Lange (cf. also Ackermann, this volume).

same simple sentence), and *sin* ‘his’, morphologically the [+ reflexive] pronoun, which meanwhile imitates the Low German pronoun *sin* morphologically and originally had a [\pm reflexive] status in German, as this is typical of all West Germanic languages. But Dano-Norw. *[*Olav*]_{BEN} *hans bil* is ungrammatical though it fulfils the antecedent restriction (i.e. no antecedent available). So, language contact with Low German has left behind a *typological* and *syntactic chaos* because mutually exclusive features from North and West Germanic became mixed up in one and the same language system. The disappearance of the dative in the Mainland Scandinavian languages made phrases like Dano-Norw. (26b) *Olav sin bil* strictly speaking no longer analysable in terms of syntax (viz. no antecedent: *Olav* takes the position of a pseudo-head in this NP; originally it was a dative but represents now a benefactive role).

Western and southern Jutish dialects spoken in Mainland Denmark permit, however, possessive phrases such as *Olaf hans bil* – but due to other reasons. Since these dialects have to be considered West Germanic in their origin (for details see Braunmüller 2017), the formally non-reflexive possessive pronouns are used as in all other West Germanic languages, namely as [\pm reflexive], parallel to Eng. *his*, Dut. *zijn* or Ger. *sein*. But the formally reflexive possessive pronoun *sin* may be used as well, for the same reasons as in Norwegian, namely triggered by the morphological coincidence with Low Ger. diamorph *sin* ‘his’ (see Jul Nielsen 1986).

Icelandic prefers phrases with genitive agreement (cf. (27)), which seems very similar to the Norwegian phrase as displayed in (28):

- (27) Icel.
bil-inn [*han-s* *Ólav-s*]
 car-SG.DEF.NOM his.3SG-GEN Ólav.SG-GEN
 ‘Ólav’s car’

- (28) Norw.
bil-en [*han-s* *OlavØ*]
 car-SG.DEF his.3SG-GEN Olav.SG
 ‘Olav’s car’

The Icelandic phrase is, however, structurally more closely related to the German phrase *das Auto* [*seines Freundes*]_{GEN} ‘his friend’s car’ than to phrases like *Olav*_{BEN<DAT} [*sin/hans bil*] with an underlying benefactive/dative role (sc. *Olav*). So, both the genitive and the dative case can be used to express ‘possession’ – but their syntactic behaviour is completely different. Any merger will lead to typological inconsistencies and the same also applies for the morphology of the pronominal possessives in the third person. Whenever West Germanic [\pm reflexive] possessive pronouns are used as models in Mainland Scandinavian varieties due to language contact, violations in terms of syntactic referentiality will occur.

The examples from Dano-Norwegian have nicely illustrated this *conflict* between morphological congruence and the closely related contact language of (Low) German, and syntactic consistency for reflexive possessives in North Germanic. More generally speaking, language contact in terms of additive borrowing (Trudgill 2011: 27) leads to more linguistic complexity and gives way to typological heterogeneity. It opens the door to more linguistic (stylistic) variation but makes the acquisition of that language more difficult than necessary. Second language learners will only acquire some of these structures – which does not really matter due to the redundancy principle observed in all natural languages.

8. Conclusions

8.1 On the helix in language history („Vom Spirallauf der Sprachgeschichte“)

In the late 19th century, Georg von der Gabelentz was very well aware of the fact that the same functions within a linguistic system do occur in different states and forms, oscillating between ‘ease of expression’ and ‘distinctiveness’:

Nun bewegt sich die Geschichte der Sprachen in der Diagonale zweier Kräfte: des *Bequemlichkeitstriebes*, der zur Abnutzung der Laute führt, und des *Deutlichkeitstriebes*, der jene Abnutzung nicht zur Zerstörung der Sprache ausarten lässt. Die Affixe verschleifen sich, verschwinden am Ende spurlos: ihre Functionen aber oder ähnliche bleiben und drängen wieder nach Ausdruck. Diesen Ausdruck erhalten sie, nach der Methode der isolirenden Sprachen, durch Wortstellung oder verdeutlichende Wörter. Letztere unterliegen wiederum mit der Zeit dem Agglutinationsprozesse, dem Verschleife und Schwunde, und derweile bereitet sich für das Verderbende *neuer Ersatz* vor: periphrastische Ausdrücke werden bevorzugt: [...]. (von der Gabelentz 1901: 256)

‘The history of languages vacillates along the vector of two forces: one of *establishing ease*, which leads to the attrition of sounds on the one hand, and one of *establishing distinctiveness*, which prevents forces of attrition from destroying the language. The affixes get slurred and finally disappear without a trace; their functions or similar forces remain, however, and try to regain expression. This expression is achieved using the method of isolating languages by word order or explanatory words. The latter are subject to the agglutinative process as time goes by, i.e. slurring and loss, whereas *new replacing elements* arise in order to substitute the ruined forms: periphrastic forms are preferred (...).’

(my translation and emphases, KB)

This quote largely reflects what we observe in the historical development of the Indo-European case system compared with its survivals in Germanic: pre-Germanic showed more case marking elements than the modern Germanic languages do, but some of them had very specialised syntactic or semantic

functions in their formation. The instrumental case for instance, which is already defective in its paradigm in Old English, was restricted to the masculine and neuter singular. Moreover, this case marker survived only in some early poetic texts (cf. (29)), otherwise it became substituted by the dative:

- (29) OEng.
forþan ic hine sweord-e
 therefore 1SG him.SG.ACC.M sword.SG-INSTR
swebban nelle (Beowulf I, 679; Mitchell & Robinson 1998: 70)
 sleep.INF will.NEG.PRS.IND.1SG
 ‘therefore I will not with [a] sword put him to sleep’

Other older Indo-European languages lost cases as well (cf. the early loss of the locative case *Romae* ‘in Rome’ in Latin) but to a far lesser extent than the Germanic dialects, probably due to language contact. Other languages have preserved more cases of the original Indo-European system, as e.g. Russian, which still has the instrumental and, to some extent, the vocative case at its disposal and established a special prepositional case.

The use of prepositions that show their special grammatical functions more overtly was not yet mandatory in ancient times, as can be observed in the first (word by word) translations from Latin (30b) into Old High German (OHG, 30), maintaining the hyperbaton construction of the Latin original as well (Tatian, Prologue Luc. I, 1: Sievers 1892/1966: 13):

- (30) a. OHG.
saga thīo in uns gifulta
 (hi)story.ACC.SG that in us.1PL filled.up.PP.PL
sint rahhōno <
 are.PRS.IND.3PL things.GEN.PL
- b. Lat.
narrationem_{ACC} quae in nobis completae sunt rerum_{GEN}
 ‘[the] history about those things that are filled up in us’

8.2 Overlapping grammatical functions and their consequences

8.2.1 Grammatical overspecification and linguistic complexity

If two cases can at least in part take over similar tasks in sentence formation, such an overlapping in function will lead to grammatical overspecification¹⁵ in that part

15. This distinction goes back to McWhorter’s view of how languages get restructured due to second/non-native language acquisition (cf. McWhorter 2007: 21–45).

of grammar and more generally speaking to an increase in linguistic complexity (cf. Braunmüller 2016).

As demonstrated in detail above, possession can be expressed both in terms of the genitive and the dative case: 'Possession' in Modern German may be rendered (a) by genitive marking: *mein Buch, das Buch ist meins/das meinige* 'my book/this book is mine' (cf. (16a–d), or (b) by means of the dative: *dem Vater sein Buch*, 'father's book' (cf. (19)), [non-standard] *das Buch ist mir* 'this book is mine' (cf. (6b)). As both grammatical means, the possessive genitive and the possessive dative, are kept alive side by side, it must be concluded that this kind of overspecification in grammar must be an essential means of expression for German speakers and regarded as indispensable, because they apparently feel that this link deserves special (grammatical or stylistic) differentiation. But the North Germanic languages went even further.

The Mainland Scandinavian languages provide the best examples of how to elaborate and verbalise 'possession'. These languages display both the inherited (a) genitive and (b) the dative, borrowed in this function from West Germanic/Low German during the era of the Hanseatic League, and set great value on the distinction between (c) reflexive and non-reflexive possessive pronouns as far as the pronouns in third person are concerned (Mainl. Scand. *sin*_{+RFL-POSS-3SG} and *hans*_{-QRFL-POSS-3SG} 'his').¹⁶ Moreover, they show an abundance of (d) periphrastic prepositional phrases and in Icelandic and Faroese also distinguish between (e') 'possession' in general and (e'') 'unalienable possession', the latter often by means of the preposition *hjá* 'with, at'. On top of that, these two languages also differentiate in their verbal systems between having something in terms of (f') existing or (f'') in being there with something (Icel. *hafa* 'to have', *vera með* 'being with') on the one hand and owing (Icel. *eiga* 'to possess') something on the other.

8.2.2 Grammatical underspecification

But the opposite development, the merger of formerly clearly distinct cases, may also emerge as a result of language evolution. As already mentioned, the dative proved to be a kind of melting pot for the locative, ablative and instrumental cases and the nominative has absorbed the apparently redundant vocative case. Both developments thus led to *grammatical underspecification*, since one single case now represents more than three different functions in sentence formation. But any

16. The distinction between Ger. *sein*_{POSS} *Bruder* vs. *dessen*_{DEM} *Bruder* 'his brother' may in some contexts be used to mirror this differentiation to a certain extent but there is no grammatical distinction available to express reflexivity or non-reflexivity in terms of third person pronouns: Ger. *sein*_{POSS-QRFL} 'his', *ihr*_{POSS-QRFL}; Eng. *his*_{POSS-QRFL}, *her*_{POSS-QRFL}.

loss of grammatical forms and distinctions causes semantic ambiguities or at least unspecific grammatical representations which need, if felt necessary, to be solved by introducing new overt morphological markings starting up as periphrases that are on the way to being grammaticalised. This drift towards new periphrastic forms can be observed everywhere when case markings have disappeared (cf. English, French, Spanish, Portuguese¹⁷ or Italian).

8.3 Progress in language evolution?

As indicated by Georg von der Gabelentz and his view of language evolution, similar states-of-affairs may be achieved again – but under other circumstances and represented by different grammatical means: the transition from more or less specified case markings to functional prepositional markings clearly supports a desire to have 1:1 correspondences in rendering grammatical representations. But there is a price to be paid by the speakers: they now have to learn to use these new periphrastic prepositional phrases and their idiomatic distribution (cf. Section 5.1). Since all members of a linguistic community are both speakers and hearers/addressees, they will not in fact win anything at all in terms of this (gradual) *restructuring* because the ease of encoding multifunctional case markers may turn out to be a disadvantage for any immediate unambiguous decoding. Thus we have to see these restructurings as some sort of a zero-sum game and not as any progress in language evolution (as has been claimed by Jespersen 1894 based on his view of English). Today we observe that the restructuring of the possessive (and genitival) relations has come to a (provisional) end: the Germanic languages tend to prefer more and more analytic prepositional markings at the expense of the older inherited synthetic case markers. But this development expresses nothing more than a *typological re-analysis* on another, ‘higher’ level, where ‘possession’ is still abundantly marked.

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17. The so-called Differential Object Marking by the preposition *a*, as obligatory in Spanish, had once been code-copied into Portuguese in the late Middle Ages but vanished there in the 19th century due to language cultivation leading to greater linguistic divergence from the neighbouring language Spanish (cf. Döhla 2014).

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The papers in this volume focus on the dynamics of one specific cell in morphological paradigms – the genitive. The high amount of diachronic and synchronic variation in all Germanic languages makes the genitive a particularly interesting phenomenon since it allows us, for example, to examine comparable but slightly different diachronic pathways, the relation of synchronic and diachronic variation, and the interplay of linguistic levels (phonology, morphology, syntax, and semantics). The findings in this book enhance our understanding of the genitive not only by describing its properties, but also by discussing its demarcation from functional competitors and related grammatical items. Under-researched aspects of well-described languages as well as from lesser-known languages (Faroese, Frisian, Luxembourgish, Yiddish) are examined. The papers included are methodologically diverse and the topics covered range from morphology, syntax, and semantics to the influence of (normative) grammars and the perception and prestige of grammatical items.

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