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Gapping from a historical point of view

Abstract: Gapping is the optional omission of at least the finite verb in coordination. While in Modern Standard German (MSG) mismatches in person-/number-marking between the gap and its antecedent are the only ones attested, Early New High German (ENHG) also permits mismatches in 1) the verbal item (*sein* 'be' vs. *haben* 'have'), 2) verbal function (lexical vs. grammatical), and 3) voice (active vs. passive). Moreover, subordinate clauses without a finite verb are characteristic of ENHG. Such *afinite constructions* also occur in coordination structures. Previous studies have linked mismatched coordination ellipses to these afinite constructions. Based on data from the ENHG treebank, this study focuses on mismatch types in which ENHG differs from MSG. I argue that ellipses in main clause coordination should be analysed as genuine coordination ellipses, particularly gapping, rather than as phenomena resembling afinite constructions, even if they mismatch. I further claim that approaches to gapping that do not require full phonological identity between the gap and its antecedent can also analyse mismatched gapping in ENHG. Finally, there are indications that the standardisation process of High German may have contributed to the loss of these additional types of mismatched gapping, thus restricting gapping in MSG.

Keywords: ellipsis, gapping, right node raising, afinite construction, mismatches, Early New High German

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1 Introduction

In Modern Standard German (MSG), finite verbs can be omitted in coordinated main (1a) and subordinate clauses (1b).[1]

(1) Gapping

a. *Maria* ***las*** *eine Zeitung und Peter* ~~***las***~~ *eine Zeitschrift.*
Maria read a newspaper and Peter read a magazine
'Maria read a newspaper and Peter (read) a magazine.'

b. *(Ich weiß,) dass Maria eine Zeitung* ***las*** *und Peter eine Zeitschrift* ~~***las***~~.
I know that Maria a newspaper read and Peter a magazine read
'I know that Maria read a newspaper and Peter (read) a magazine.'

The meaning of the ellipsis can be reconstructed based on the linguistic context formed by the coordination structure (see e.g. Aelbrecht 2015: 563 and Klein 1993: 766).[2] Thus, the overt finite verb *las* 'read' in the first conjunct licenses the gap in the second conjunct (Reich 2011: 1854–1861). A coordination ellipsis in which at least the finite verb is omitted in the second conjunct is called *gapping* (Ross 1967, 1970). This corpus study examines gapping from a historical point of view.

In Early New High German (ENHG, 1350–1650), ellipses of finite verbs seem to be less restricted than in MSG, see (2).

(2) *da* ***ist*** *er eine Zeitlang still gelegen/ vnnd* ~~***hat***~~ *sich mit seinem Kriegßvolck Erquicket/.*
there is he a time.span still lain and has REFL with his troops refreshed
'There he rested for a while and refreshed himself together with his troops.'
(Baumbank.UP, Johann Bange 1599, s488)

According to Sapp (2011: 34), reflexive verbs like *sich erquicken* 'refresh oneself' select the auxiliary *haben* 'have' in ENHG. Thus, the lexical verbs of the conjuncts select different auxiliaries to

[1] Antecedents are highlighted in bold, gaps with strikethrough. In afinite constructions, I adhere to the conventions of earlier studies and mark the position of the missing verb with an underscore. If the omission of the finite verb is possible in Modern English, I mark the gap in the translation with curly brackets.

[2] To make the discussion, in particular of the historical data, easier to understand, I refer to the initial conjunct as the first conjunct and the non-initial conjunct as the second conjunct, although, strictly speaking, the conjuncts are neither in the very first nor in the second position, as there may be linguistic material preceding them or between them.

form present perfect in (2), creating a mismatch between the gap (*hat* 'has') and the overt finite verb *ist* 'is' in main clause coordination.[3]

In ENHG, mismatched ellipses occur also in coordinated subordinate clauses, see (3).

(3) *aber weil es gar schwaerlich* ***war*** *auff zu kommen/ wegen des Windes/*
but because it at.all hard was up to get because the wind
welcher gemeinlich das gantze Jahr von Sudost kompt/ vnd der fluß
that usually the whole year from south.east comes and the river
auß Congo vns bey 6. Wochen auff gehalten ~~***hat***~~*: mußten wir auff 30. meil*
from Congo us to 6 weeks held.up has had we to 30 miles
saeglen.
sail
'We had to sail thirty nautical miles because it was hard to get up because of the wind that blows from south-east all year round, and the river from Congo held us up to six weeks.'
(Baumbank.UP, Samuel Braun 1624, 61)

In the first conjunct, the clause contains the copula *war* 'was' in perfect tense. However, there is no copular construction in the second conjunct. In addition, the second conjunct is in active voice. Here, the participle *auff gehalten* 'stopped' is used to form the perfect tense, and, as a transitive verb, it selects the auxiliary *haben* 'have' (Sapp 2011: 34).[4] In (3), the overt finite verb *war* 'was' and the gap *hat* 'has' thus differ in their function (copula vs. auxiliary).

Previous studies on ENHG link mismatched ellipsis to non-coordinated clauses that lack a finite verb (Breitbarth 2005b; Thomas 2019), as in (4).

(4) *Alß wir vns vm Mittagszeiten zuoruck nach dem Portu wider gewendet_/*
as we us at midday back to the harbour again turned
ersahen wir zur lincken von ferrne ain Schiff/
spotted we at left from afar a ship
'As we made our way back to the harbour at midday we spotted a ship in the distance on the left-hand side.'
(Baumbank.UP, Leonhart Rauwolf 1582, 99)

[3] One should be aware of the fact that existence of state verbs like *liegen* 'lie' select both *haben* 'have' and *sein* 'be' in ENHG and MSG as in (i), see also Table 1 in Section 3.1.

(i) *Ich bin/habe gesessen/gelegen/gestanden*
I was/have sitting/lying/standing
'I was sitting/lying/standing.'

[4] Sapp (2011: 34) points out that not all instances of clauses with transitive participles can be regarded as perfect tense cases. It is also possible that the auxiliary *sein* 'be' forms the passive voice. However, it is unlikely that the second conjunct in (3) is in the passive rather than the active voice. I therefore stand by this interpretation.

In (4), only the participle *gewendet* 'turned' is overt, but there is no finite auxiliary verb.[5] Note that this finite verb ellipsis is not licensed by a coordination relation, but by subordination. Dependent clauses that lack finite verbs (typically auxiliaries) in ENHG are referred to as *afinite constructions* (Biener 1925; Schröder 1985; Demske-Neumann 1990; Ebert et al. 1993; Breitbarth 2004, 2005a,b; Senyuk 2014; Blum 2018; Thomas 2019; Demske 2022).

In previous studies, both ellipses – mismatched ellipses as in (2) and (3), and afinite constructions (4) – were considered as one phenomenon. Breitbarth (2005b), who focuses mainly on afinite constructions in her study, claims that afinite constructions and coordinated clauses with mismatched ellipses exhibit a "lesser degree of spatio-temporal anchoring" (Breitbarth 2005b: 127). Thus, the function of creating a dependency relation is not only attributed to afinite constructions (Admoni 1967; Demske-Neumann 1990; Breitbarth 2004, 2005a,b; Senyuk 2014), but also to the ellipsis of coordinated clauses, so that "one of the clauses is really dependent on the other" (Breitbarth 2005b: 149). For Thomas (2019: 17), however, afinite constructions and mismatched ellipses in coordination have in common that the ellipsis is a learned stylistic feature.

While Breitbarth (2005b) and Thomas (2019) consider finite verb ellipses in coordination from the perspective of afinite constructions, this paper takes up a coordination-based approach, which is briefly mentioned by Breitbarth (2005b: 63) as an alternative analysis: "the auxiliary ellipsis in coordinated main clauses may potentially be an extension of Gapping."[6] However, with regard to the diachronic development of gapping, I follow Lohmann (2026: Chapter 7), reverse Breitbarth's statement, and argue that gapping in MSG is the result of a restriction of (historical) gapping. Thus, there are three central questions underlying this study: 1) What are the similarities and differences of mismatched ellipses in coordination and ellipses in afinite constructions? 2) In what properties do mismatched ellipses in coordination behave akin to gapping? 3) Why have (certain types of) mismatched gapping disappeared in MSG?[7]

To answer these research questions, I conduct a corpus study based on the Baumbank.UP (Demske 2019), the largest historical German treebank to date. Due to its balanced structure, the corpus (527,597 tokens) enables both diachronic (1350–1650) and diatopic (Middle West,

[5] For an alternative analysis of the lexical verbs at the end of subordinate clauses as ambiguous between participles of present perfect and finite verbforms in preterite tense see for instance Biener (1925: 296) and Blum (2018).

[6] Here, Breitbarth (2005b) quotes Behaghel (1928), probably referring to the idea mentioned at the beginning of section 2.4.3 in Breitbarth (2005b). The idea of Behaghel (1928: 491) is that afinite constructions developed "due to an extension of regular conjunction reductions" (Breitbarth 2005b: 56). However, in making this statement, he does not refer explicitly to mismatched ellipses in coordination, but to coordination ellipses in general.

[7] Whereas mismatches in person-/number-marking still occur in MSG (see Section 2.1), other types disappeared. It would therefore be promising to investigate gapping in non-standard varieties of Modern German, given the clear preference for mismatched gapping in the Upper German area in ENHG, see Table 2 in Section 3.3.

Middle East, Upper West, and Upper East) investigations on ENHG data. In contrast to Breitbarth (2005b: 113) and Lohmann (2026: Chapter 7), mismatches in person-/number-marking are not taken into account, since they appear in MSG, see Section 2.1. Instead, this study focuses on mismatches that diverge from MSG, which is mismatches in 1) the verbal item itself (*sein* 'be' vs. *haben* 'have'), 2) verbal function (lexical verb vs. grammatical verb), and 3) voice (active vs. passive). The quantitative analysis revealed 58 instances of mismatched ellipses among 8,397 coordinated structures containing the conjunction *und* 'and'. These ellipses show an increased frequency during the 16th century. This trend reflects the emergence of afinite constructions (cf. Breitbarth 2005b: 63; Blum 2018: 73–81; Lohmann 2026: 226). Moreover, in the Baumbank.UP afinite constructions predominantly appear in Upper German (69%) (cf. Blum 2018: 73–81; Lohmann 2026: 227). The same holds true for mismatched ellipses (71%). However, unlike afinite constructions, mismatched ellipses also occur in main clause coordination, exclusively in second conjuncts (cf. Lohmann 2026: 245). Here, objects can also be elided, similar to gapping.

I propose analysing mismatched ellipses in coordinated main clauses separately from ellipses in subordinate clauses (coordinated and non-coordinated). In main clause coordination, I argue that the ellipsis is genuine gapping. I will refer to this type of mismatched ellipsis as *mismatched gapping*. Further evidence supporting the claim that mismatched ellipses should be analysed as gapping, rather than as afinite constructions, comes from two West Germanic languages. Yiddish, which is closely related to German, exhibits mismatched gapping comparable to ENHG (cf. Birnbaum 1988: 67; Jacobs 2005: 262). Additionally, gapping in Old English differs from gapping in Modern English, too (Pérez Lorido 1996: 336). Crucially, neither Yiddish nor Old English have afinite constructions. The occurrence of mismatched gapping in these languages therefore suggests that the phenomenon in ENHG may not be directly related to afinite constructions, but rather to coordination.

Furthermore, there is evidence to suggest that the standardisation of High German may have influenced gapping, thereby resulting in the loss of the patterns 1)—3) in MSG. Firstly, the phenomenon of mismatched gapping has been observed in Yiddish, a language that has not undergone a standardisation process. Secondly, prescriptive grammarians have made statements about the appropriate use of ellipsis in German, in which they advise to avoid certain mismatches.

The paper is structured as follows: After outlining the general topic, current research questions and main results in Section 1, Section 2 provides the background on finite verb ellipses in High German and addresses their diachrony. Section 3 outlines the corpus study and Section 4 discusses the results in a broader context. Section 5 concludes by summarising the main points presented in this paper and raising some further research questions.

2 State of the art on ellipses of finite verbs

The existence of ellipsis, what constitutes an ellipsis, and how meaning arises when no linguistic item is overt are topics that are still being discussed in linguistics (cf. Aelbrecht 2015; van Craenenbroeck & Temmerman 2018). Most research on ellipsis has focused on modern languages. New insights have been gained by testing the grammaticality of elided vs. non-elided language items, for example. It should be noted, however, that the study of historical languages such as ENHG can only be based on corpus data. Consequently, it is not possible to conduct grammaticality tests on this data. Before presenting my approach to dealing with the corpus data from the 13th to 17th centuries in Section 3, I will discuss the current state of research on finite verb ellipses. I begin by outlining the key characteristics of finite verb ellipses in MSG (Section 2.1), followed by a discussion on ellipses in historical language periods of High German (Section 2.2).

2.1 Ellipses of finite verbs in Modern Standard German

Here, I focus on context-controlled ellipsis (Klein 1993: 766), which is also referred to as "a[ntecedent-based] ellipsis" (Reich 2011: 1854–1861). In coordination, the meaning of the elided part can be reconstructed from the linguistic context (cf. Aelbrecht 2015: 563; Klein 1993: 766).[8] The coordination structure therefore provides the linguistic context for the ellipsis.[9] Depending on the order of the antecedent and the ellipsis, the ellipsis types are terminologically distinguished. 1) The antecedent of the ellipsis is in the first conjunct and the ellipsis itself is in the second conjunct, see (5). This ellipsis of finite verbs is called *gapping* (Ross 1967, 1970).

(5) *Maria* ***las*** *eine Zeitung und Peter* ~~***las***~~ *eine Zeitschrift.*
Maria read a newspaper and Peter read a magazine
'Maria read a newspaper and Peter (read) a magazine.'

2) The antecedent is in the second conjunct and the ellipsis is in the first conjunct, as in (6). This ellipsis is known as *right node raising* (RNR)[10] (Postal 1974).[11]

[8] There is also the opinion that ellipses do not exist, which means nothing else than the phonetically realised linguistic items are interpreted (see Ginzburg & Sag 2000; Culicover & Jackendoff 2005).

[9] Lechner (2004: 97–113) shows similar properties of gapping in coordination and comparatives. A few examples here do indeed show gapping in non-standard varieties of Modern German.

[10] In Ross (1970: 253), it is referred to as *backward gapping*.

[11] In contrast to gapping, RNR does not have to affect minimally the finite verb. Items that are constituents or smaller than constituents can be elided in first conjuncts, see (i).

(i) Maria hat [DP ein Zebra und zwei Giraffen] gesehen, aber Petra hat [DP ein Kamel und fünf Giraffen] gesehen
Maria has one zebra and two giraffes seen but Petra has one camel and five giraffes seen
'Maria saw one zebra and two giraffes, but Petra saw one camel and five giraffes.'
(Hartmann 2015: 507)

(6) *(Ich weiß,) dass Maria eine Zeitung* ~~***las***~~ *und Peter eine Zeitschrift* ***las***.
I know that Maria a newspaper read and Peter a magazine read
'I know that Maria read a newspaper and Peter read a magazine.'

In coordination of main clauses, the finite verb cannot be elided in the first conjunct. This is shown in (7). Thus, RNR cannot apply here.[12]

(7) **Maria* ~~***las***~~ *eine Zeitung und Peter las eine Zeitschrift*
Maria read a newspaper and Peter read a magazine
'Maria read a newspaper and Peter read a magazine.'

In coordination of subordinate clauses, RNR (6) and gapping (1b) (repeated here again in (8)) are possible.

(8) *(Ich weiß,) dass Maria eine Zeitung* ***las*** *und Peter eine Zeitschrift* ~~***las***~~.
I know that Maria a newspaper read and Peter a magazine read
'I know that Maria read a newspaper and Peter (read) a magazine.'

When gapping occurs in coordinated subordinate clauses, not only the finite verb but also the complementizer has to be elided in the second clause (cf. Repp 2009a,b; Bonke 2024: Appendix A), see (9).

(9) **(Ich weiß,) dass Maria eine Zeitung* ***las*** *und dass Peter eine Zeitschrift* ~~***las***~~.
I know that Maria a newspaper read and that Peter a magazine read
'I know that Maria read a newspaper and (that) Peter (read) a magazine.'

If gapping is defined as the omission of at least the finite verb, then the ellipsis known as *stripping*[13], see (10), is a subtype of gapping (Repp 2009a).

(10) *Maria* ***las*** *eine Zeitung und Peter* ~~***las***~~ *(auch)* ~~*eine Zeitung*~~
Maria read a newspaper read Peter read also a newspaper
'Maria read a newspaper and Peter (read a newspaper), too.'

For a complete overview of the differences and similarities between gapping and RNR in MSG see for instance Reich (2011).

[12] In main clause coordination, RNR can apply on the non-finite verb, as in (i). Here, gapping and RNR are combined.

(i) *Maria* ***hat*** *eine Zeitung* ~~***gelesen***~~ *und Peter* ~~***hat***~~ *eine Zeitschrift* ***gelesen***
Maria has a newspaper read and Peter has a magazine read
'Maria read a newspaper and Peter read a magazine.'

[13] Some studies refer to it as *bare argument ellipsis* (Hankamer 1979).

Although gapping allows for person-/number-mismatches (Wilder 1994: 308), see (11a), tense, mode and aspect of antecedent and ellipsis have to be identical (Repp 2009b: 229–230), see (11b).

(11) Gapping

a. *Ich* ***trinke*** *das Bier und du* ~~***trinkst***~~ *den Wein.*
I drink the beer and you drink the wine
'I drink beer and you (drink) wine.'

b. **Beckham* ***spielte*** *gestern und ich* ~~***spiele***~~ *morgen.*
Beckham played yesterday and I play tomorrow
'Yesterday, Beckham played and I will play tomorrow.'
(Reich 2011: 1860)

For RNR, Christ (2011: 378) argues that there is no strict phonological identity required between ellipsis and antecedent but a phonological quasi-identity. While most of the data he discusses concern mismatches between constituents (and smaller items) regarding the grammatical categories of case and number (Christ 2011: 381–397), he also mentions the category of person, which is marked by finite verbs (Christ 2011: 397–400). Christ (2011: 397) also argues that irregular verbs, such as *trinkst* 'drink' in (12a), are less frequently elided in the first conjuncts, instead serving as overt antecedents for ellipses.

(12) Right node raising

a. *(Ich weiß), dass ich immer Bier* ~~***trinke***~~ *und du immer Wein* ***trinkst****.*
I know that I always beer drink and you always wine drink
'I know that I am always drinking beer and you are always drinking wine.'

b. **(Ich weiß), dass Beckham gestern* ~~***spielte***~~ *und ich morgen* ***spiele****.*
I know that Beckham yesterday played and I tomorrow play
'I know that yesterday Beckham played and I will play tomorrow.'

However, the data discussed in Christ (2011: 397–400) cannot be easily categorised into grammatical and ungrammatical, so it is not possible to draw valid conclusions from them. Tense and mood mismatches between ellipsis and antecedent are without doubt ungrammatical in RNR, see (12b) for a tense mismatch (Christ 2011: 407). Compared with gapping (13a), RNR is not limited to coordination structures (13b).

(13) Subordination

a. **Maria* ***hat*** *eine Zeitung gelesen, während Peter ferngesehen* ~~***hat***~~*.*
Maria has a newspaper read while Peter watched.tv has
'Maria read a newspaper while Peter watched TV.'

b. *Maria hat eine Zeitung* ~~***gelesen***~~*, während Peter zwei Zeitschriften* ***gelesen*** *hat.*
Maria has a newspaper read while Peter two newspaper read has
'Maria read a newspaper while Peter read two magazines.'

Since ellipsis is the strictest way of de-accentuating linguistic expressions, it is used to contrast linguistic material, leading to accentuating the remnants (cf. Féry & Hartmann 2005). However, not all conjuncts can be contrasted in MSG. As illustrated by example (14), RNR is ungrammatical in *asymmetric coordination* structure. The object *die Puppe* 'the doll' cannot be elided at the right edge of the first clause (Bonitz 2013: 45).

(14) **Gestern kämmte Sophia* ***~~die~~ Puppe*** *und verkleidete* ***die Puppe***
yesterday combed Sophia the doll and dressed the doll
'Yesterday, Sophia combed the doll and she dressed her.'
(Bonitz 2013: 45)

Since a finite verb must generally be overt in the second conjunct's main clause position in asymmetric coordination, gapping is not possible here (cf. Reich 2009a: 38). Further, in asymmetric coordination, the events are interpreted as one merged event (cf. Höhle 2019b: 204), or, according to Barnickel (2017: 91), the second event is in "immediate posteriority". Thus, the second conjunct depends on the first conjunct (cf. Reich 2009b: 207). In MSG, there are two types of asymmetric coordination structures (cf. Höhle 2019a,b). (15a) is characterised by an obligatory subject gap in the second conjunct. In (15b), the second conjunct does not exhibit verb-final word order. Instead, there is V2 word order.

(15) a. *Hoffentlich sieht uns keiner und zeigt uns an.*
hopefully sees us nobody and reports us on
'Hopefully, no one sees us and reports us.'
(Höhle 2019b: 202)

b. *Wenn jemand nach Hause kommt und da steht der Gerichtsvollzieher vor der Tür.*
when someone at home comes and there stands the bailiff at the door
'When someone comes home and the bailiff is standing at the door.'
(Höhle 2019a: 296)

Asymmetrical coordination structures therefore cannot express a contrastive reading of conjuncts (cf. Reich 2009a: 115) and do not allow gapping and RNR (cf. Höhle 2019b: 204). Thus, gapping and RNR are characteristic properties of (symmetrical) coordination structures, whereas RNR can also occur in subordination.

2.2 Ellipses of finite verbs in the history of German

In Old High German (OHG, 750–1050) coordination structures occur with two coordinators *inti* 'and' and *joh* 'and' (cf. Eroms 2010; Oppermann 2025). Oppermann (2025: 124) argues that

gapping is present in Old High German (contra Eroms 2010: 301). This ellipsis occurs with *inti* 'and', see (16), but there are no data with *joh* 'and' (Oppermann 2025: 124).[14]

(16) *Got* ***ist*** *dher quhad, endi got* ***~~ist~~*** *dher deta.*
God is who spoke and God is who did
'God is the one who spoke, and God is the one who created/acted.'
(Is 4,4 as cited from Oppermann 2025: 127)

RNR is also present in OHG (17), but not very frequently (Oppermann 2025: 124–125).[15]

(17) *dér ímo zuíualt.* ***~~líutet~~*** *únde énemo fieruált* ***líutet***
which him twofold rings and that.one fourfold rings
'which will sound twofold for this one and fourfold for that one.'
(Mus IV,18 as cited from Oppermann 2025: 125)

RNR occurs in Middle High German (MHG, 1050–1350) (Oppermann 2025: 142–143), so does gapping (Oppermann 2025: 144–146), see (18).

(18) *da din herze mitte gilabit* ***wart****. un gitrostit* ***~~wart~~***
there your heart with refresh became and comforted became
'With which your heart was refreshed and comforted.'
(Muri 15va,12f. as cited from Oppermann 2025: 144)

In Early New High German (ENHG, 1350-1650), gapping (19a) and RNR (19b) appear as well (Demske 2008: 303–304; Lohmann 2026: 112–116).

(19) a. *Jedoch* ***vlevzt*** *colera von im in die orn vnd melancolia* ***~~vlevzt~~***
however flows cholera from him in the ears and melancholy flows
da tz den augen auz Vnd fleuma ***~~vlevzt~~*** *da zue der nasen*
there to the eyes out and phlegm flows there to the nose
'However, cholera flows from him into the ears and melancholy flows out to the eyes and phlegm flows to the nose.'
(Baumbank.UP, Konrad von Megenberg 1348–1350, 96)

b. *auch mit dem Geschuetz auff dem Wahle dermassen vnter sie*
also with the gun at the rampart so.much among them
Geschossen/ daß Arm vnd Schenckel in die Lufft geflogen ***seyn~~/~~*** *vnd.*
shot that arms and thighs in the air blown.up are and
vngefehr 1700. Frantzosen Tod blieben ***seyn/***
approximately 1700 Frenchmen dead left are
'There was so much shooting among them on the rampart that arms and thighs were blown up and Frenchmen were left dead.'
(Baumbank.UP, Johann Bange 1599, 1008)

[14] The highlighting with bold and strikethrough is by M. L.
[15] As RNR does not necessarily have to elide the finite verb, but can instead omit other linguistic items such as constituents (see (10) in footnote 10), Oppermann (2025) does not count RNR involving only elided finite verbs separately. Consequently, there is no quantitative information in Oppermann (2025) on this point.

Throughout the history of High German, evidence of gapping and RNR has thus been found. The ellipses mentioned so far are phonologically identical to their antecedents. However, in addition to ellipsis under identity, in ENHG finite verbs can also be elided if there is no identity between the ellipsis and the antecedent. This can be either in terms of lexical entry, for example, different auxiliaries, see (20a), or in terms of grammatical feature marking, for example, different number marking, see (20b) (cf. Breitbarth 2005b: 113; Demske 2008: 304–305).

(20) a. *vnd die drey gebrueder* ***sein*** *auf solch ersuechen khumen/ vnd* ~~***haben***~~
and the three brothers are on such request come and have
das gepiet zwischen einander auß geteilt
the land among eachother divided
'On this request, the three brothers came and they divided the land among them.'
(Baumbank.UP, Sigmund von Herberstein 1557, 83; cf. Breitbarth 2005b: 5)

b. *drumb siht man itzt/ das welschlandt/ fast wust* ***ist****/*
therefore sees one now that Italy almost depredated is
kloster vorstoret ~~***sind***~~*/ bistumb vortzeret* ~~***sind***~~*/ prelaturn vnd*
monasteries destroyed are dioceses consumed.up are prelatures and
aller kirchen tzinße gen Rome tzogen ~~***ist***~~
all churches tax towards Rome drawn is
'therefore, one can see now that Italy is almost completely depredated, that monasteries are destroyed, dioceses are consumed up, that money from all churches and prelatures is drawn to Rome.'
(Luther 1520, C3^{b}, 29—32, as cited from Breitbarth 2005b: 5)

There are two corpus studies that consider mismatched ellipses in ENHG. However, the main focus of these studies, Breitbarth (2005b) and Thomas (2019), is on afinite constructions, see (4) repeated here in (21), i.e. dependent clauses that lack a finite verb in ENHG.

(21) *Alß wir vns vm Mittagszeiten zuoruck nach dem Portu wider gewendet_/*
as we us at midday back to the harbour again turned
ersahen wir zur lincken von ferrne ain Schiff/
spotted we at left from afar a ship
'As we made our way back to the harbour at midday we spotted a ship in the distance on the left-hand side.'
(Baumbank.UP, Leonhart Rauwolf 1582, 99)

It is the absence of finite verbs, mostly auxiliaries, that both mismatched ellipses in coordination (20a,b) and afinite constructions (21) have in common.

One quantitative study of auxiliary ellipsis is that of Breitbarth (2005b). The corpus contains 25 printed texts from 1450 to 1800. This time span is divided into 50-year segments, with five texts in each segment. 286,000 words were analysed, with 45,000 words per segment (Breitbarth

2005b: 13–15). In total, there are 2,474 auxiliary ellipses (Breitbarth 2005b: 15). These include (non-coordinated) afinite constructions and, as Breitbarth (2005b: 58, fn. 26) points out, coordinated main and subordinate clauses with ellipsis of finite verbs that deviate from gapping and RNR under identity. Breitbarth (2005b: 146–148) refers to these as "non-parallel coordination ellipses". 55% of auxiliary ellipses are mismatched ellipses in coordination (Breitbarth 2005b: 59).[16] These mismatches can be in type of auxiliary selected, number-marking, or tense (Breitbarth 2005b: 59–60). In 68% of the coordination data, an overt auxiliary is entirely missing (Breitbarth 2005b: 61). In her analysis, Breitbarth (2005b) does not differentiate between ellipsis in coordination of main and subordinate clauses. The Appendix contains the total number of instances (n = 168) and relative frequencies for each text (Breitbarth 2005b: 161–162), which show the instances of main clauses counted separately. Unfortunately, there is no mention of how many cases do not match in terms of grammatical features compared to lexical entries in main clause coordination.

A second recent study on auxiliary ellipsis is by Thomas (2019). The corpus contains data of GerManC (1650–1800), parts of the Bonn Corpus of Early New High German (1350–1600) and a corpus of texts from 1490–1550, which Thomas (2019: 17) compiled herself. However, this study only investigates mismatched ellipses in subordinate clauses (coordinated and non-coordinated) (Thomas 2019: 44). Thomas (2019) therefore does not collect any data at all on main clause coordination.

In addition to the auxiliary ellipsis, mismatched ellipses in coordination and afinite constructions share a similar frequency development. Afinite constructions spread rapidly in 16th century, but disappeared quickly after 1700 (Breitbarth 2005b: 43). The same applies to mismatched ellipses in coordination. They "emerge and disappear along with" afinite constructions (Breitbarth 2005b: 6). However, Breitbarth (2005b) includes ellipses in both coordinated main clauses and coordinated subordinate clause, as well as in non-coordinated subordinate clauses. It is therefore unclear whether this development would be confirmed by analysing coordinated and non-coordinated data separately.

It is argued that, for afinite constructions, the ellipsis creates a dependency relation (Admoni 1967; Demske-Neumann 1990; Breitbarth 2004, 2005a,b; Senyuk 2014). Thus, Breitbarth (2005b: 149) assumes that in coordination with a mismatched ellipsis, such as in (20a), "one of the clauses is really dependent on the other" due to the ellipsis. Referring to research on asymmetric coordination in MSG by Höhle (2019a) and Büring & Hartmann (1998), Breitbarth (2005b: 146–147) argues that (20a) exhibits the characteristics of asymmetric coordination, see Section 2.1. One such feature is an obligatory subject gap. Secondly, the order of the conjuncts cannot be switched, a feature which may also be evident in (20a) (Breitbarth 2005b: 146–147).

[16] Please note that in Breitbarth (2005b), afinite constructions and mismatched ellipses in coordination are subsumed under the term auxiliary ellipsis.

(22) **vnd die drey gebrueder* ~~***haben***~~ *das gepiet zwischen einander auß*
and the three brothers have the land among eachother
geteilt vnd ***sein*** *auf solch ersuechen khumen*
divided and are on such request come
(Breitbarth 2005b: 147)

Although it is true that there is a subject gap in the second conjunct of (20a), (22) is not a suitable test of historical data, as these are extracted from a corpus. As Labov (1972: 100) rightly points out, corpus data are "bad data", in the sense that they can neither be manipulated, as in (22), nor can their grammaticality be tested. This also serves as an argument against Thomas (2019: 17) view that auxiliary ellipsis in ENHG is a purely learned stylistic phenomenon, "[b]ecause AE [Auxiliary Ellipsis] cannot easily be categorised as grammatical or ungrammatical". If a stylistic feature does not reflect the grammar of a language, how can the language be used by its producers and understood by its perceivers?

Furthermore, asymmetric coordination is characterised by the absence of three properties that are otherwise all found in symmetric/parallel coordination: 1) no across-the-board (ATB) movement (cf. Büring & Hartmann 1998: 178); 2) no ellipses, except of subject gaps (cf. Höhle 2019b: 204); and 3) no contrastive reading (cf. Reich 2009a: 115), see also Section 2.1. Does (20a) show one or more of these features? Regarding 1), the possibility of ATB-Movement can just be checked by manipulating the data as it is shown in (23).

(23) [*Einen Wagen*]$_i$ *kaufte Hans* t_i *und meldete ihn/**t_i *sofort an*
a car bought Hans and registered it immediately on
'Hans bought a car and he registered it immediately.'
(Büring & Hartmann 1998: 178)

This property cannot therefore be proven to be either right or wrong based on historical data. The same applies to property 3), see Section 2.1. In (20a), based on world knowledge, one would say that the events expressed by the conjuncts occur one after the other. However, we do not know whether speakers in the Early Modern period interpreted the events expressed by the conjuncts as one merged event, i.e. did not contrast them, or whether, on the contrary, they used the ellipsis precisely to emphasise the remnants, as Pérez Lorido (1996: 333) assumes with regard to the occurrence of mismatched ellipses in Old English. However, it is well known that the coordinator *und* 'and' allows just for a progressive order of events (cf. Bar-Lev & Palacas 1980: 144). Therefore, asymmetric coordination is only appropriate with the coordinator *und* 'and' (cf. Reis 1993: 214; Reich 2009a: 146–148). If one wants to compare mismatched ellipses with asymmetric coordination, one could also check whether mismatched ellipses only occur with the coordinator *und* 'and', see Section 4.

Diachronically, asymmetric coordination with subject gaps in second conjuncts might have been part of German grammar throughout the history. There is data that shows similar structures like asymmetric coordination with subject gaps in OHG, MHG (Oppermann 2021; Oppermann 2025: Chapter 5), and in ENHG (Demske 2008: 305–308; Lohmann 2026: 106–112), see (24).

(24) *Mit dieser Antwort sein die Stend noch nicht content/ vnd wollen biß*
with this answer are the parties yet not satisfied and want till
Mitwoch noch ein Schrifft vbergeben
Wednesday yet a document submit
'The parties are not yet satisfied with this response and would like to submit a document by Wednesday.'
(Aviso 1609, 47.22, as cited from Demske 2008: 306)

Unlike in asymmetric coordination (24), the finite verb is also elided in (20a). However, regarding property 2), it is unclear whether data with mismatched ellipsis such as in (20a) exhibit further ellipses, such as elided objects. This is a property of gapping, and therefore of symmetric coordination, see (10) in Section 2.1, but not of asymmetric coordination (cf. Höhle 2019b: 204), see (25).[17]

(25) **Morgen zeigt Karl dem Onkel die Briefmarken und bietet* ~~***sie***~~ *ihm*
tomorrow shows Karl the uncle the stamps and offers them him
zum Verkauf an.
for sale on
'Tomorrow, Karl will show the uncle stamps and he will offer him the stamps for sale.'
(Höhle 2019b: 204)

Breitbarth (2005b: 63) suggests that "ellipses in coordinated main clauses may potentially be an extension of gapping". This quote originally refers to Behaghel (1928: 491), who, however, mentions that afinite constructions may originate from coordinated clauses lacking a finite verb. As Breitbarth (2005b) analyses both afinite constructions and mismatched coordination as one type of auxiliary ellipsis, she reinterprets the quote, despite him not explicitly referring to mismatched ellipses in coordination. Furthermore, Breitbarth (2005b: 63) states that "one would probably subsume the auxiliary ellipses in coordinated subordinate clauses under the uncoordinated ones", i.e. afinite constructions. Thus, the question of whether mismatched ellipses and afinite constructions are one and the same phenomenon, or whether they should be treated separately, remains unanswered.

I take up Breitbarth's (2005b: 56–63) assumption on mismatched ellipses in coordination, as well as Thomas's (2019: 17) hypothesis that auxiliary ellipses constitute a learned stylistic device in ENHG. However, I reverse this. Based on Lohmann (2026: Chapter 7), I claim that mismatched ellipses are genuine instances of coordination ellipses, especially gapping. Furthermore, there

[17] The marking of the ellipsis of *sie* 'them' is by M. L.

is evidence that their disappearance may have been stylistically enforced by prescriptive grammarians. The current occurrence of gapping in MSG, see Section 2.1, might therefore be a consequence of the restriction of gapping over the historical development of German.

To demonstrate this, I distinguish between non-coordinated subordinate clauses lacking a finite verb and coordinated clauses. In contrast to Breitbarth (2005b), Demske (2008), Thomas (2019) and Lohmann (2026: Chapter 7), however, I focus on mismatches that deviate from MSG in this paper. Thus, I do not consider ellipses that only show person-/number-mismatches, see Section 2.1, but ellipses with mismatches in 1) the verbal item itself (*sein* 'be' vs. *haben* 'have'), 2) the verbal function (lexical verb vs. grammatical verb), and 3) voice (active vs. passive). Furthermore, earlier research has not specified how they evaluate their data with coordination ellipses as mismatched ellipses. In my study in Section 3, I follow Lohmann (2026: 87–91) and consult the auxiliary selection hierarchy (ASH) developed by Sapp (2011) for ENHG to decide which auxiliary verb could be selected by the lexical verb in the elided conjunct.

3 Corpus study

This study is partly based on Lohmann (2026: Chapter 7). The corpus examined is the Baumbank.UP (Demske 2019). It contains 26 ENHG prose texts, which adds up to more than 600,000 tokens.[18] It is currently the largest historical corpus of German. The time span of 1350–1650 is divided in 50-year segments. In each time span, there are prose texts covering the four big dialectal High German areas: Middle West, Middle East, Upper West and Upper East. Each cell of the corpus, for example 1350–1400 Middle West, contains approximately 20,000 tokens. Thus, the corpus is balanced in terms of both time and area. The Baumbank.UP is parts-of-speech-tagged due to the Historical TagSet (HiTS) system (Dipper et al. 2013). The syntactic annotation is based on TIGER (Brants et al. 2004), but an additional label, AS, has been implemented for afinite constructions.

3.1 Method

I focus on clauses that are conjoined by the coordinator *und* 'and'. It is the most common coordinator in ENHG. The spelling variant *vnd*[19] solely accounts for 3.2% of all tokens.[20] In addition, *und* 'and' shows all properties of a coordinating conjunction since OHG (cf. Oppermann

[18] As this study is based on Lohmann (2026), the 2019 version is referenced here. In the 2019 version, the corpus has 600,775 tokens, punctuation included. By then the corpus was not relaunched online. All texts were therefore accessed via TIGERSearch (Lezius 2002). After 2019, some of the punctuations were deleted, so now the corpus has 600,569 tokens and can be accessed via TüNDRA (Martens 2013) and ANNIS (Krause & Zeldes 2016).
[19] There are approximately 13 spellings of *und* 'and' in the corpus, see Lohmann (2026: 99, fn 1).
[20] For comparison: the TIGER corpus has 888,238 tokens (punctuation included) (Brants et al. 2004). Here, *und* 'and' accounts for 1.9% of all tokens (Lohmann 2026: 99, fn 2).

2025). In contrast, *aber* 'but' became a coordinator later in the history of German (cf. Ferraresi 2018). Thus, the quantitative analysis is based on sentences conjoined by *und* 'and' to ensure coordination structures.

In the corpus, coordination of clauses is tagged as CS. In order to distinguish between afinite constructions and ellipsis in coordinated clauses, I focus on clauses tagged as S and governed by CS. As *und* 'and' is also tagged as junction in the corpus, I search for CS that governs a coordinator tagged as KON. Thus, it ensures that syndetic coordination is in focus. In total, there are 10,361 instances in which the coordinator combines sentences. Narrowing down the query to each spelling of the coordinator *und* 'and', there are 8,397 instances.[21] In the corpus, the verbs *haben* 'have' and *sein* 'be' are tagged with the prefix VA for auxiliaries, regardless whether their function is grammatical or lexical.[22]

To determine whether the ellipsis matches the antecedent, I check the conjuncts due to the (predictable) function of the finite verbs (lexical or grammatical). If a grammatical function is probable, I follow Sapp's (2011) study. The grammatical function can be either expressing tense or creating passive voice. To form the perfect tense, transitive and reflexive verbs select *haben* 'have' (Sapp 2011: 34). For intransitives, I use the ASH (Sapp 2011: 40), see Table 1.

As Table 1 illustrates, the split auxiliary system "remained relatively stable" (Sapp 2011: 40). There is variation regarding continuation and existence of state verbs. Continuation of state verbs like *stehen* 'stand', *sitzen* 'sit', *liegen* 'lay' show "variation by semantic context and dialect" (Sapp 2011: 40). In the Upper German region, there is a clear preference for *sein* 'be' (Sapp 2011: 39). Existence of state verbs select more often *sein* 'be' than *haben* 'have' in ENHG (Sapp 2011: 40). According to Sapp (2011: 34), it should be noted that examples such as (26) express passive voice rather than perfect tense.

(26) so *ist mir auch von meinem herrn nit geboten*
so is me also by my lord not asked
'So neither is it asked of me by my lord.'
(Buch von Troja 13, as cited from Sapp 2011: 34)

In (26), the transitive verb is a participle *geboten* 'asked' building together with *ist* 'is' passive voice.[23] Thus, one has to be aware of this possible interpretation.

[21] Due to the fact that the corpus has no lemma annotation, each spelling variant of *und* 'and' was taken into account.
[22] The query syntax conducted via TIGERSearch (Lohmann 2026: 230): #1:[cat="CS"] & #2:[pos="KON"] & #3:[cat="S"] & #4:[pos="VAFIN"] & #5:[pos=/V.*P.*/|pos="ADJD"] & #1 > #2 & #1 > #3 & #3 > #4 & #3 >* #5. It is set that *haben* 'have' or *sein* 'be' is present as a finite verb in at least one sentence (VAFIN), and that either a participle (V.*P.*) or a predicative adjective (ADJD) is present in one sentence. Notice that the query does not fix that both VAFIN and participle or predicative adjective must be present in the same instance. It can be either VAFIN or participle/predicative adjective.
[23] In MSG, stative passive is built by *sein* 'be' and processual passive by *werden*. The development of passive voice is discussed, for instance, in Eroms (1990, 1992) and Kotin (1998).

Table 1: Auxiliary selection hierarchy adapted from Sapp (2011: 40)

Sorace (2000)	**ENHG** **Sapp (2011: 40)**	**MSG** **Keller & Sorace (2003)**
change of location *entkommen* 'escape'	*sein* 'be'	*sein* 'be'
change of state *wachsen* 'grow'	*sein* 'be'	*sein* 'be' (*haben* 'have')
continuation of state *verweilen* 'stay'	*haben* 'have'	*haben* 'have' (*sein* 'be')
existence of state *liegen* 'lay'	*sein* 'be' (*haben* 'have')	*haben* 'have' /*sein* 'be'
uncontrolled processes *zittern* 'shiver'	*haben* 'have'	*haben* 'have'
controlled processes motional *tanzen* 'dance'	?	*sein* 'be' (*haben* 'have')
non-motional *reden* 'talk'	*haben* 'have'	*haben* 'have'

In the following sections, I discuss matching ellipses qualitatively only. Ellipses with mismatches, however, are presented quantitatively using descriptive statistics, since the focus of the study is on these.

3.2 Matching finite verb ellipsis in coordination

Finite verb ellipsis matching its antecedent appears in coordinated main clauses (27a) and in coordinated subordinate clauses (27b).

(27) a. *Dasselb hauß* ***ist*** *zu stund an nider gerissen/ vnd ain Kirchen* ***ist*** *an dieselb stat gesetzt*
the.same house is at hour on down torn and a church is at the.same place put
'The same house has been torn down at the hour and on the same place a church has been put.'
(Baumbank.UP, Sigmund von Herberstein 1557, 268)

b. *Vnd merke doby wie wol ein edel mensch der kunig was das er*
and realise thereby how well a noble person the king was that he
das alles von gotte ***hat****/ vnd nit von jm selber* ~~***hat***~~*...*
that all from God has and not from him self has
'I realise what a noble man the king was, that he has all of that from God and not from himself.'
(Baumbank.UP, Marquard von Lindau 1450, 6049)

Following Sapp (2011: 34), both conjuncts express passive voice in (27a). Thus, the auxiliary verb *ist* 'is' is omitted in the second conjunct. In (27b), the verb *hat* 'has' as a full lexical verb is missing. Both examples are therefore genuine gapping instances, as the ellipsis and antecedent match phonologically. Further, I consider data as (28) to be genuine instances of gapping since person-/number-mismatches do occur in MSG, see section 2.1.

(28) die *welt* ***ist*** *mer gekrucziget vnd ich* ~~***bin***~~ *der welte* ~~***gekrucziget***~~***/***
the world is me crucified and I am the world crucified
'The world is crucified to me and I am crucified to the world.'
(Baumbank.UP, Marquard von Lindau 1450, 843)

In addition to gapping, RNR also appears in the corpus, see (19b) repeated in (29).

(29) *auch mit dem Geschuetz auff dem Wahle dermassen vnter sie*
also with the gun at the rampart so.much among them
Geschossen/ daß Arm vnd Schenckel in die Lufft geflogen ***seyn****/ vnd.*
shot that arms and thighs in the air blown.up are and
vngefehr 1700. Frantzosen Tod blieben ***seyn****/*
approximately 1700 Frenchmen dead left are
'There was so much shooting among them on the rampart that arms and thighs were blown up and Frenchmen were left dead.'
(Baumbank.UP, Johann Bange 1599, 1008)

Due to the ENHG ASH in Table 1, the ellipsis in the first conjunct matches the overt finite verb *seyn* 'are'. The event *in die Lufft geflogen* 'blown up in the air' expresses a change of location. This example is therefore a genuine occurrence of RNR.

3.3 Mismatched finite verb ellipses in coordination

Here, I focus on finite verb ellipsis that deviate from MSG and in this sense do not match their antecedent. In Baumbank.UP (Demske 2019), there are 58 instances of such mismatches, see Table 2:[24]

[24] There are three occurrences of person-/number-mismatches in the data. Two examples appear in coordination of subordinate clauses, and one example occurs in main clause coordination. Unlike Lohmann (2026: Section 7.3), I do not take these into account, as I am focusing on mismatched ellipses that deviate from MSG. However, person-/number-mismatches do occur in MSG, see Section 2.1.

Table 2: Mismatched ellipses per time and area

	Time						
Area	**1350–1400**	**1400–1450**	**1450–1500**	**1500–1550**	**1550–1600**	**1600–1650**	**Total**
Middle West	0	0	0	0	3	4	7 (12%)
Middle East	0	0	0	0	11	0	11 (18.9%)
Upper West	0	1	0	5	10	2	18 (31%)
Upper East	0	0	0	0	18	4	22 (37.9%)
Total	0	1 (1.7%)	0	5 (8.6%)	42 (72.4%)	10 (17.24%)	58 (100%)

Of the 58 mismatched ellipses, around 72% (n = 42) occur in the period 1550–1600. Around 68% (n = 40) occur in Upper German (n = 18 in Upper West; n = 22 in Upper East). In terms of clause type, half of the cases occur in coordination of main clauses (n = 29). Examining the order of the antecedent and the ellipsis reveals that, in main clause coordination, the ellipsis only occurs in second conjuncts. In coordinated subordinate clauses, both orders appear, see Table 3.[25]

Table 3: Direction of mismatched ellipses

Ellipses	**Main clause**	**Dependent clause**
forward	yes (n = 29)	yes (n = 3)
backward	no	yes (n = 24)
No antecedent	no	yes (n = 2)
Total	n = 29	n = 29

Besides that, there are two examples of coordinated subordinate clauses that have no antecedent at all.[26] In terms of mismatch types, there are mismatches with full lexical verbs, as in (30).

[25] One reviewer suggested that text-type might be a factor that influences the use of ellipsis. The Baumbank.UP (Demske 2019) is not balanced according to text-type. This factor cannot be proved or disproved. However, in the time slot 1550–1600 there are three different types of prose: texts for description (n = 3), texts for leisure (n = 11+18), and texts about realia (n= 10). At this stage, I leave it to further research to investigate the influence of this factor.
[26] See for instance example (43c) in Lohmann (2026: 242).

(30) *die* ***haben*** *ein eygne Scytische sprach vnd yr schrifft* ***~~ist~~*** *nit vngleich*
they have a own Scythian language and their script is not unlike
der Griechischen
the Greek
'they have their own Scythian language and their script is similar to the Greek.'
(Baumbank.UP, Sebastian Franck 1534, 491)

In (30), *haben* 'have' is overt in the first conjunct, in the second conjunct the finite verb is omitted. Due to *vngleich* 'unlike' as predicative and the nominal phrase *yr schrifft* 'their script' as subject, it is more likely a copular construction in the second conjunct with the copula *sein* 'be' missing.[27]

In addition, there are mismatches with grammatical verbs, see example (2) repeated in (31).

(31) *da* ***ist*** *er eine Zeitlang still gelegen/ vnnd* ***~~hat~~*** *sich mit seinem*
there is he a time.span still lain and has REFL with his
Kriegßvolck Erquicket/.
troops refreshed
'He rested there for a while and recovered himself together with his troops.'
(Baumbank.UP, Johann Bange 1599, s488)

In (31) the auxiliary *sein* 'be' is used to form perfect tense in the first conjunct. However, the reflexive verb *sich erquicken* 'refresh oneself' selects *haben* 'have' in ENHG (Sapp 2011: 34). As shown in (32), the auxiliary *haben* 'have' can also function as the antecedent for the ellipsis.

(32) *in der Tauf* ***hat*** *Volodimer seinen Namen veraendert/ vnd* ***~~ist~~*** *BASILIVS*
in the baptism has Volodimer his name changed and is Basilius
genant worden/
named been
'in the baptism, Volodimer has changed its name and he has been named Basilius.'
(Baumbank.UP, Sigmund von Herberstein 1557, 168)

Furthermore, (32) shows that the conjuncts can differ in voice. While the first conjunct expresses the active voice with the auxiliary *hat* 'has' overtly, the second conjunct is in the passive voice (processual), indicated by *worden*. In the next section, I discuss these results in a broader context. I will also present evidence that might explain why this kind of mismatched gapping has been lost diachronically.[28]

[27] One reviewer suggested analysing the example as an object predication in the sense of *vnd die haben yr schrifft nit vngleich der Griechischen* 'and they have a script not unlike the Greek one'. With this interpretation, there is no mismatch between the gap and its antecedent. I searched the entire corpus for examples of *gleich*/*ungleich* 'equal/unequal' in a predicative function, particularly in Sebastian Franck's text, in order to evaluate the proposed interpretation. Despite this investigation, no examples were found that correspond to this interpretation. However, I cannot categorically rule it out, as one cannot draw conclusions based on the absence of evidence in corpora.

[28] It may be that these mismatched ellipses still occur, for example, in Upper German varieties. To the best of my knowledge, there have been no studies to date on coordination and coordination ellipses in non-standard German varieties. However, some examples of ellipses in non-standard German can be found in Lechner (2004: 97–113).

4 Discussion

In the preceding section, the results of the corpus study were presented. The Baumbank.UP treebank data demonstrated that gapping and RNR are applicable when the elided finite verb and the antecedent match regarding their phonological identity. However, 58 instances of mismatched ellipses have been identified. Despite the Baumbank.UP corpus being twice the size of Breitbarth's (2005b), there are fewer mismatched ellipses. Breitbarth (2005b: 59) extracted 55% of 2,474 auxiliary ellipses. However, this study diverges from Breitbarth's (2005b) in its methodological approach: it focused exclusively on clauses conjoined by *und* 'and'; distinguished between coordinated and non-coordinated clauses; and it only considered mismatches deviating from MSG. However, mismatched gapping has also been observed with other coordinators, as shown in (33).[29]

(33) *Dieser Großfuerst* ***hat*** *auch seyn zeiten/ das CASANISCH Thatterisch*
that grand.duke has also his time the Kazan Tatars
Khuenigreich an gefallen/zu wasser vnnd Lanndt/ aber ***ist*** *vngethoner*
kingdom attacked at water and land but is undone
sachen abgezogen
things withdrawn
'In his time, the Grand Duke attacked the Kingdom of the Kazan Tatars from both sea and land, but withdrew without having achieved anything.'
(Baumbank.UP, Sigmund von Herberstein 1557, 310)

The search for other coordinators like *aber* 'but' and the consideration of asyndetic coordination, as Breitbarth (2005b: 151) may have done, might lead to more mismatched gapping instances than I presented in Section 3.3.

Additionally, (33) contradicts Breitbarth's (2005b: 149) comparison of mismatched ellipses to asymmetric coordination. The coordinator *aber* 'but' expresses adversative semantics. A contrastive relation between conjuncts is not possible in asymmetric coordination in MSG due to the lack of parallelism of the conjuncts (Reich 2009a: 115). Thus, other coordinators than *und* 'and' do not form asymmetric coordination (cf. Reis 1993: 214; Reich 2009a: 146–148). What Breitbarth (2005b: 149) presumes being formed by the mismatched ellipsis in example (20a), a dependency relation like in asymmetric coordination, is therefore most likely neither a dependency relation of the conjuncts, nor is it the dependency created by the ellipsis itself. It is rather the coordinator *und* 'and' that forces a sequential or resulting interpretation of the conjuncts. Bar-Lev & Palacas (1980: 144) attribute this to the temporal semantics of the conjunction. Txurruka (2003) presumes a blocking function of subordination relations in terms of pragmatics. Generally, the level (semantic, syntactic and/or pragmatic) on which coordination applies is

[29] According to Ferraresi (2018) *aber* 'but' is already a coordinator in ENHG.

still being debated (cf. Altshuler & Truswell 2022). However, both assumptions, semantics and pragmatics, would explain why changing the order of the conjuncts is not allowed without drawing a connection to asymmetric coordination. Thus, it is the coordinator that forces one to interpret the event of the second conjunct as occurring after the event of the first conjunct, or to interpret it as a result of the event of the first conjunct. Due to the coordinator *und* 'and', there is a progressive reading of the coordination that prohibits changing the order. Nothing depends on the ellipsis itself.

Nevertheless, is there a link between mismatched ellipses and afinite constructions, as it is assumed by Breitbarth (2005b) and Thomas (2019)? For comparison, non-coordinated afinite constructions must be considered. Here, I refer to the study of Blum (2018), who analysed afinite constructions in the Baumbank.UP, excluding coordinated instances of it (Blum 2018: 8). A secondary analysis of the 1,102 afinite construtions in Blum (2018: 73–81) shows that these clauses occur most frequently in 1550–1600 and are more common in Upper High German (69%) than in Middle High German (31%) (Lohmann 2026: 226–227). These results reflect the findings of mismatched ellipses in Table 2. I assume that these are two different types of ellipses, which, however, occur more frequently in Upper German and time slot 1550–1600 for the same reason. Both fall into the period and region of the expansion of the perfect tense, which began in the Upper High German area and spread over to the Middle High German region (cf. Lindgren 1957: 44). When perfect tense was common, afinite constructions and mismatched ellipses became more frequent. Thus, the preterite almost disappeared in Upper High German, whereas in Middle High German, both preterite and perfect tense are still used (Fischer 2020: 113).

In addition to ENHG, there is another West Germanic language that exclusively uses present perfect tense and exhibits similar cases of mismatched gapping as ENHG. In Yiddish, the auxiliary in the second conjunct of a main clause coordination can be omitted, even if it diverges from the auxiliary occurring in the first conjunct (Birnbaum 1988: 67; Jacobs 2005: 262), see (34a) and (34b).

(34) Yiddish

a. *mir zenen gekumen un gegesen*
we were come and eaten
'we came and ate'
(Jacobs 2005: 262)

b. *die feigl hobn gezungen un avekgeflojgn*
the birds have sung and flown.away
'the birds sang and flew away'
(Jacobs 2005: 262)

According to Schäfer (2023), Yiddish is a Germanic language that originated in the Middle Ages and has preserved older language structures from High German, especially from oral varieties.

It uses present, perfect, double perfect, future, as well as active and passive voice. It also has a split auxiliary system (Schäfer 2022: 377). In contrast to MSG, it has remained unaffected by standardization. Moreover, to my knowledge, Yiddish has no afinite constructions.

In addition, there is a second West Germanic language that does not exhibit afinite constructions but rather displays mismatched gapping (Pérez Lorido 1996: 334–336), see (35).

(35) *& heora gemetting* ***wæs*** *eft æt Trefia þære ie & eac*
and their encounter was afterwards at Trevia the river and also
Romane gefliemed & swþor forslagen, & Hannibal gewundod
Romans put.to.flight and greatly slaughtered and Hannibal wounded
'And their encounter was at the River Trevia, and the Romans put to flight and much slaughtered, and Hannibal wounded'
(Oros. 100.6 as cited from Pérez Lorido 1996: 335–336)

The Old English example in (35) shows a mismatch in the function of the verb *wesan*. In the first conjunct, it is used as a lexical verb "and as an auxiliary of the passive in the second one" (Pérez Lorido 1996: 336). This kind of gapping produces a "humorous effect" in Modern English (Pérez Lorido 1996: 336). In Old English, it is a "proof of relative opacity of the rule of coordination deletion in Old English" (Pérez Lorido 1996: 336). Gapping is used "to emphasize a certain part of it [= sentence]" (Pérez Lorido 1996: 333). Irrelevant parts are deleted, "as long as they had appeared previously in discourse" (Pérez Lorido 1996: 333).

Ellipses in coordination, gapping and RNR, are the strictest way of de-accentuating linguistic expressions in order to place the contrastive focus on the remaining linguistic material in the coordination (cf. Féry & Hartmann 2005). Thus, any existing theory on gapping that is not based on complete phonological identity between ellipsis and antecedent provides a possible analysis for the historical data. Hartmann (2000) assumes that gapping is the deletion of assertion. Repp (2009b: 207) proposes that "[g]apping is the coordination of two sentences where the elliptic conjunct copies the anchoring of the proposition to the factual world from its non-elliptic antecedent" (Repp 2009b: 207). Thus, tense, aspect, and mood have to be identical (Repp 2009b: 230). This definition of gapping also applies to the historical data, specifically on the mismatched ellipses in main clause coordination, since these factors are identical in the examples. I therefore assume that these are genuine cases of gapping. However, mismatched ellipses in coordinated subordinate clauses are rather conjoined afinite constructions (cf. Breitbarth 2005b: 62–63). The data in Table 3 confirm the observation of Breitbarth (2005b: 62). It is forward deletion only in main clause coordination, akin to gapping. In coordinated subordinate clauses, however, not only are both orders of ellipsis and antecedent possible, which could still be explained by coordination ellipses, gapping and RNR, but in two examples, there is no antecedent at all (cf. Breitbarth 2005b: 61). Since afinite constructions – finite subordinate clauses probably without

finite verbs – can occur independently of coordination, the ellipsis of such constructions within coordination structure can be more easily explained by assuming that afinite constructions are coordinated by themselves.

Furthermore, example (36) of mismatched gapping in coordinated main clauses might show an elided object, too:

(36) *Als das geschah/ [...]* ***ist*** *der Basilius* ***dem*** ***Khuenig*** *zu fueß* gefallen/
when that happend is the Basilius king to feet fallen
vnd ~~***hat ihn***~~ *gebetten/ jme sein notturft fur zu bringen* zu/ *uergonnen/ [...]*
and has him pleased him his livelihood for to bring to grant
'When this happened, Basilius fell at the king's feet and begged him to grant him his livelihood.'
(Baumbank.UP, Sigmund von Herberstein 1557, 201)

However, if theories of coordination ellipses based on MSG observations can analyse historical data that is no longer common in MSG, why have the mismatched gaps disappeared diachronically?

There is evidence that the standardization process of High German has influenced gapping in German and may have led to the loss of the mismatched patterns. First, mismatched gapping is attested in Yiddish, see (34a,b), a language that has not undergone a standardization process. Second, there are statements by prescriptive grammarians about the appropriate use of gapping (Adelung 1782; Grimm 1837):

> Die Hülfswörter sind in den zusammengeseßten Zeiten das wahre und eigentliche Verbum, daher man sie nicht verschweigen sollte, außer, wenn mehrere mit einander verbundene Verba einer Zeit, Person und Rection einerley Hülfswort haben sollten: [...] Die Fälle, wo die Zusammenkunft mehrerer Hülfswörter Mißklang und schleppende Dehnung verursacht, lassen sich bey ein wenig Geschmack und Uibung leicht vermeiden. (Adelung 1782: 397)

> "Auxiliary verbs are the true and actual verbs, which is why they should not be omitted, except when several verbs are linked together that express equal tense, person and government, and select the same auxiliary. [...] With a little taste and practice, it is possible that situations can be avoided in which the combination of several auxiliary verbs leads to discord and sluggish elongation."

Early modern grammarians strived not only for a unified language across regions (von Polenz 2020: 24), but also for a "correctness of language in German" (von Polenz 2020: 109). Under normative pressure, the German language moved away from the spoken language, and language variants were lost (von Polenz 2020: 113). Thus, the loss of mismatched gapping may also be a phenomenon that has been influenced by the standardisation process. However, a systematic

analysis of normative grammars is lacking. It would provide insight into the influence of prescriptivism on gapping. In addition, it is unclear whether mismatched gapping has completely disappeared in Modern German. Further studies on coordination and coordination ellipsis in German varieties could yield interesting findings. These tasks remain open for future research.

5 Conclusion

In this paper, I have investigated gapping from a historical point of view. For this purpose, data was extracted from the Baumbank.UP. Due to the balanced structure of the treebank, both diachronic and diatopic conclusions can be drawn. It has been shown that mismatched gapping occurs more frequently in late ENHG, even when considered separately from afinite constructions. Furthermore, it appears more often in Upper German prose texts than in Middle German prose texts. It has also been shown that these findings mirror those of afinite constructions. However, I have argued that this is related to the spread of the perfect tense, rather than being an indication that the two phenomena should be regarded as a single ellipsis phenomenon. This assumption is supported by two other West Germanic languages that also exhibit mismatched gapping but lack afinite constructions. Since gapping in MSG shows mismatches with the antecedent due to person-/number-marking, a theory relying on complete phonological identity is unsuitable. Theories that instead consider identity at a different linguistic level could also explain the mismatches that occur in coordinated main clauses in ENHG. Regarding mismatches in coordinated subordinate clauses, I have argued that they can be more easily explained when analysed as coordination of afinite constructions. Note that Oppermann (2025: 127) classified data as gapping in OHG if "both conjuncts feature the same lemma as finite verb and are sufficiently parallel insofar as they contain two contrast pairs". It is therefore unclear whether mismatched ellipses of finite verbs, whether due to either grammatical features or lexical entries, were already present in OHG. As Oppermann (2025) relies on this property throughout her study, there is also no evidence of mismatched ellipses in MHG. Further research on this topic is therefore required. Additionally, a systematic analysis of gapping in later periods of High German would shed light on the influence of prescriptivism on gapping, as would the investigation of coordination ellipses in non-standard varieties in German. These remain tasks for future research.

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Abbreviations

ASH Auxiliary selection hierarchy
ATB Across the board
ENHG Early New High German
MHG Middle High German
MSG Modern Standard German
OHG Old High German
RNR Right node raising

References

Adelung, Johann Christoph. 1782. *Deutsche Sprachlehre: Zum Gebrauch der Schulen in den Kgl. Preussischen Landen*. Wien: v. Trattner.

Admoni, Vladimir G. 1967. Der Umfang und die Gestaltungsmittel des Satzes in der deutschen Literatursprache bis zum Ende des 18. Jhs. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 89. 144–199.

Aelbrecht, Lobke. 2015. Ellipsis. In Tibor Kiss & Artemis Alexiadou (eds.), *Syntax – Theory and analysis: An international handbook*, vol. 1. 562–594. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110377408.562.

Altshuler, Daniel & Robert Truswell. 2022. *Coordination and the syntax-discourse interface*. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780119880239.001.0001.

Bar-Lev, Zev & Arthur Palacas. 1980. Semantic command over pragmatic priority. *Lingua* 51(2). 137–146. https://doi.org/10.1016/0024-3841(80)90004-2.

Barnickel, Katja. 2017. *Deriving asymmetric coordination in German: A nonmonotonic approach*. Leipzig: Universität Leipzig dissertation.

Behaghel, Otto. 1928. Deutsche Syntax: Eine geschichtliche Darstellung, vol. 3. Satzgebilde. Heidelberg: Winter.

Biener, Clemens. 1925. Von der sogenannten Auslassung der Kopula in eingeleiteten Nebensätzen. *Die neueren Sprachen* 33. 291–297.

Birnbaum, Salomo. 1988. *Grammatik der jiddischen Sprache: Mit einem Wörterbuch und Lesestücken* (5., erg. Aufl.). Hamburg: Buske.

Blum, Simon. 2018. *Zur Entstehung der afiniten Konstruktion im Frühneuhochdeutschen*. Berlin: Humboldt-Universität zu Berlin master's thesis.

Bonitz, Petra-Kristin. 2013. *Subjektellipsen in Koordinationsstrukturen. Theoretische Fundierung und empirische Erkenntnis*. Göttingen: Georg August-Universität Göttingen dissertation.

Bonke, Max. 2024. *Complementizers in ellipsis. A cross-linguistic study with special focus on Spanish*. Köln: Universität zu Köln dissertation.

Brants, Sabine, Stefanie Dipper, Peter Eisenberg, Silvia Hansen, Esther König, Wolfgang Lezius, Christian Rohrer, George Smith & Hans Uszkoreit. 2004. TIGER: Linguistic interpretation of a German corpus. *Journal of Language and Computation* 2. 597–620. https://doi.org/10.1007/s11168-004-7431-3.

Breitbarth, Anne. 2004. Auxiliary drop in Early Modern German. *Linguistics in the Netherlands* 21(1). 36–46. https://doi.org/10.1075/avt.21.07bre.

Breitbarth, Anne. 2005a. Auxiliary drop as subordination marking. *Linguistics in the Netherlands* 22(1). 37–47. https://doi.org/10.1075/avt.22.06bre.

Breitbarth, Anne. 2005b. *Live fast, die young – the short life of Early Modern German auxiliary ellipsis.* Tilburg: Universiteit van Tilburg dissertation. https://www.lotpublications.nl/Documents/115_fulltext.pdf, 8 September 2026.

Büring, Daniel & Katharina Hartmann. 1998. Asymmterische Koordination. *Linguistische Berichte* 174. 172–201.

Christ, Rüdiger. 2011. Linkstilgung und phonologische Quasi-Identität. *Linguistische Berichte* 228. 371–411. https://doi.org/10.46771/2366077500228_1.

Culicover, Peter & Ray Jackendoff. 2005. *Simpler Syntax*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199271092.001.0001.

Demske, Ulrike. 2008. Symmetrische und asymmetrische Koordination im Frühneuhochdeutschen. In Waldemar Czachur & Marta Czyzewska (eds.), *Vom Wort zum Text. Studien zur deutschen Sprache und Kultur. Festschrift für Professor Józef Wiktorowicz zum 65. Geburtstag*. 299–309. Warszawa: Uniwersytetu Warszawskiego.

Demske, Ulrike. 2019. *Referenzkorpus Frühneuhochdeutsch: Baumbank.UP*. Universität Potsdam. https://www.uni-potsdam.de/de/guvdds/baumbankup, 8 October 2026, https://doi.org/10.57754/FDAT.c7wr3-5k848.

Demske, Ulrike. 2022. Silent heads in Early New High German. In Ulrike Freywald, Horst J. Simon & Stefan Müller (eds.), *Headedness and/or grammatical anarchy?*. 123–151. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.6973523.

Demske-Neumann, Ulrike. 1990. Charakteristische Strukturen von Satzgefügen in den Zeitungen des 17. Jahrhunderts. In Anne Betten & Claudia M. Riehl (eds.), *Neuere Forschungen zur historischen Syntax des Deutschen*. 239–252. Tübingen: Niemeyer. https://doi.org/10.1515/9783111708751.239.

Dipper, Stefanie, Karin Donhauser, Thomas Klein, Sonja Linde, Stefan Müller & Klaus-Peter Wegera. 2013. HiTS: ein Tagset für historische Sprachstufen des Deutschen. *Journal for Language Technology and Computational Linguistics Special Issue* 28(1). 85–137. https://doi.org/10.21248/jlcl.28.2013.170.

Ebert, Robert Peter, Oskar Reichmann, Hans-Joachim Solms & Klaus-Peter Wegera. 1993. *Frühneuhochdeutsche Grammatik*. Tübingen: Niemeyer. https://doi.org/10.1515/9783110920130.

Eroms, Hans-Werner. 1990. Zur Entwicklung der Passivperiphrasen im Deutschen. In Anne Betten & Claudia M. Riehl (eds.), *Neuere Forschungen zur historischen Syntax des Deutschen. Referate der internationalen Fachkonferenz Eichstätt 1989*. 82–97. Tübingen: Niemeyer. https://doi.org/10.1515/9783111708751.82.

Eroms, Hans-Werner. 1992. Das deutsche Passiv in historischer Sicht. In Ludger Hoffmann (ed.), *Deutsche Syntax: Ansichten und Aussichten*. 225–249. Berlin, New York: De Gruyter. https://doi.org/10.1515/9783110622447-010.

Eroms, Hans-Werner. 2010. Additive und adversative Konnektoren im Althochdeutschen. In Arne Ziegler (ed.), *Historische Textgrammatik und Historische Syntax des Deutschen: Traditionen, Innovationen, Perspektiven*, vol. 1. 279–303. Berlin, New York: De Gruyter. https://doi.org/10.1515/9783110219944.277.

Ferraresi, Gisella. 2018. Adverbial Connectives. In Agnes Jäger, Gisella Ferraresi & Helmut Weiß (eds.), *Clause structure and word order in the history of German*. 82–122. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780198813545.003.0006.

Féry, Caroline & Katharina Hartmann. 2005. The focus and prosodic structure of German right node raising and gapping. *The Linguistic Review* 22(1). 69–116. https://doi.org/10.1515/tlir.2005.22.1.69.

Fischer, Hanna. 2020. The development of the perfect in selected Middle and New Germanic languages. In Robert Crellin & Thomas Jügel (eds.), *Perfects in Indo-European Languages and Beyond*. 95–122. Amsterdam: John Benjamins. https://doi.org/10.1075/cilt.352.04fis.

Ginzburg, Jonathan & Ivan Sag. 2000. *Interrogative investigations: The form, meaning and use of English interrogatives*. Stanford: CSLI Publications.

Grimm, Jacob. 1837. *Deutsche Grammatik*, vol. 4. Göttingen: Dieterich.

Hankamer, Jorge. 1979. *Deletion in coordinate structures*. New York: Garland.

Hartmann, Katharina. 2000. *Right node raising and gapping: Interface conditions on prosodic deletion*. Philadelphia, Amsterdam: John Benjamins.

Hartmann, Katharina. 2015. Coordination. In Tibor Kiss & Artemis Alexiadou (eds.), *Syntax – Theory and analysis: An international handbook*, vol. 1. 478–514. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110377408.478.

Höhle, Tilman N. 2019a. Assumptions about asymmetric coordination in German. In Stefan Müller, Marga Reis & Frank Richter (eds.), *Beiträge zur deutschen Grammatik: Gesammelte Schriften von Tilman N. Höhle* (2., durchg. Aufl.). 295–310. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.2588359.

Höhle, Tilman N. 2019b. Subjektlücken in Koordinationen. In Stefan Müller, Marga Reis & Frank Richter (eds.), *Beiträge zur deutschen Grammatik: Gesammelte Schriften von Tilman N. Höhle* (2., durchg. Aufl.). 193–218. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.2588353.

Jacobs, Neil G. 2005. *Yiddish: A linguistic introduction*. Cambridge: Cambridge University Press.

Keller, Frank & Antonella Sorace. 2003. Gradient auxiliary selection and impersonal passivization in German: An experimental investigation. *Journal of Linguistics* 39(1). 57–108. https://doi.org/10.1017/S0022226702001676.

Klein, Wolfgang. 1993. Ellipse. In Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld & Theo Vennemann (eds.), *Syntax: Ein internationales Handbuch zeitgenössischer Forschung*, vol. 1. 763–799. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110095869.1.12.763.

Kotin, Michail. 1998. Die Herausbildung der grammatischen Kategorie des Genus verbi im Deutschen: Eine historische Studie zu den Vorstufen und zur Entstehung des deutschen Passiv-Paradigmas. Hamburg: Helmut Buske.

Krause, Thomas & Amir Zeldes. 2016. ANNIS3: A new architecture for generic corpus query and visualization. *Digital Scholarship in the Humanities* 31 (1). 118–139. https://doi.org/10.1093/llc/fqu057.

Labov, William. 1972. Some principles of linguistic methodology. *Language in Society* 1(1). 97–120. https://doi.org/10.1017/S0047404500006576.

Lechner, Winfried. 2004. *Ellipsis in Comparatives*. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783110197402.

Lezius, Wolfgang. 2002. *Ein Suchwerkzeug für syntaktisch annotierte Textkorpora*. Stuttgart: Universität Stuttgart dissertation.

Lindgren, Kaj Brynolf. 1957. *Über den oberdeutschen Präteritumschwund*. Helsinki: Suomalaisen Tiedakademia.

Lohmann, Marianna. 2026. *Koordination im Frühneuhochdeutschen: Eine qualitative und quantitative Korpusuntersuchung*. Potsdam: Universitätsverlag Potsdam. https://doi.org/10.25932/publishup-68092.

Martens, Scott. 2013. TüNDRA: A web application for treebank search and visualization. In Proceedings of The Twelfth Workshop on Treebanks and Linguistic Theories. Sofia. 133–144. https://bultreebank.org/wp-content/uploads/2017/06/TLT12Proceedings-compressed.pdf, 8 October 2026.

Oppermann, Sophia Jana. 2021. Subject gap coordination: A diachronic view. *Journal of Historical Syntax* 5(21). 1–38. https://doi.org/10.18148/hs/2021.v5i16-25.58.

Oppermann, Sophia Jana. 2025. *Coordination Structures in Old and Middle High German*. Berlin: De Gruyter. https://doi.org/10.1515/9783111544618.

Pérez Lorido, Rodrigo. 1996. On the grammatical domain of gapping in Old English: Syntax and pragmatics. *Diachronica* 13(2). 319–346.

Postal, Paul M. 1974. *On raising: One rule of English grammar and its theoretical implications*. Cambridge, MA: The MIT Press.

Reich, Ingo. 2009a. *"Asymmetrische Koordination" im Deutschen. Studien zur deutschen Grammatik*. Tübingen: Stauffenburg.

Reich, Ingo. 2009b. Ist Asymmetrische Koordination wirklich ein Fall von Asymmetrischer Koordination? In Veronika Ehrich, Christian Fortmann, Ingo Reich & Marga Reis (eds.), *Koordination und Subordination im Deutschen*. 203–222. Hamburg: Buske. https://doi.org/10.46771/978-3-87548-956-9.

Reich, Ingo. 2011. Ellipsis. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*. 1849–1874. Berlin: De Gruyter. https://doi.org/10.1515/9783110255072.

Reis, Marga. 1993. Satzfügung und kommunikative Gewichtung: Zur Grammatik und Pragmatik von Neben- vs. Unterordnung am Beispiel 'implikativer' und-Konstruktionen im Deutschen. In Marga Reis (ed.), *Wortstellung und Informationsstruktur*. 203–250. Tübingen: Niemeyer. https://doi.org/10.1515/9783111658469.203.

Repp, Sophie. 2009a. Koordination, Subordination und Ellipse. In Veronika Ehrich, Christian Fortmann, Ingo Reich & Marga Reis (eds.), *Koordination und Subordination im Deutschen*. 245–265. Hamburg: Buske. https://doi.org/10.46771/978-3-87548-956-9.

Repp, Sophie. 2009b. *Negation in gapping*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199543601.001.0001.

Ross, John Robert. 1967. Constraints on variables in syntax. Cambridge, MA: Massachusetts Institute of Technology dissertation.

Ross, John Robert. 1970. Gapping and the order of constituents. In Manfred Bierwisch & Karl Erich Heidolph (eds.), *Progress in linguistics: A collection of papers*. 249–259. Berlin: De Gruyter Mouton. https://doi.org/10.1515/9783111350219.249.

Sapp, Christopher D. 2011. Auxiliary selection in the Early New High German perfect tenses. *Groninger Arbeiten zur Germanistischen Linguistik* 53(2). 29–43.

Schäfer, Lea. 2022. Auxiliary selection in Yiddish dialects. *Journal of Germanic Linguistics* 34(4). 341–384. https://doi.org/10.1017/S1470542722000010.

Schäfer, Lea. 2023. Yiddish. In *Oxford Research Encyclopedia of Linguistics*. https://doi.org/10.1093/acrefore/9780199384655.013.946.

Schröder, Werner. 1985. *Auxiliar-Ellipsen bei Geiler von Kaysersberg und bei Luther*. Stuttgart: Steiner.

Senyuk, Ulyana. 2014. *Zum Status relativähnlicher Sätze im Früneuhochdeutschen: Ein Beitrag zum Wesen der Subordination im älteren Deutsch*. Potsdam: Universität Potsdam dissertation.

Sorace, Antonella. 2000. Gradients in auxiliary selection with intransitive verbs. *Language* 76(4). 859–890. https://doi.org/10.2307/417202.

Thomas, Victoria J. 2019. *Auxiliary ellipsis in Early Modern German 1350–1800*. Manchester: University of Manchester dissertation.

Txurruka, Isabel Gómez. 2003. The natural language conjunction and. *Linguistics and Philosophy* 26(3). 255–285. https://doi.org/10.1023/A:1024117423963.

van Craenenbroeck, Jeroen & Tanja Temmerman. 2018. Ellipsis in natural language: Theoretical and empirical perspectives. In Jeroen van Craenenbroeck & Tanja Temmerman (eds.), *The Oxford Handbook of Ellipsis*. 1–16. New York: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198712398.013.1.

von Polenz, Peter. 2020. Geschichte der deutschen Sprache (11., überarb. Aufl.). Berlin: De Gruyter. https://doi.org/10.1515/9783110485660.

Wilder, Chris. 1994. Coordination, ATB and ellipsis. *Groninger Arbeiten zur Germanistischen Linguistik* 37. 291–329.