Live fast, die young –

the short life of Early Modern German auxiliary ellipsis

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Preliminaries

With an eye on formalist works on historical German, Schröder (1985) notes in the preface to his study of the auxiliary ellipses in Geiler von Kaysersberg's and Luther's texts that

> "Für die grassierenden linguistischen Selbstbefriedigungen war und
> ist das Frühneuhochdeutsche ein ungeeignetes Feld und Luthers
> Sprache ein untaugliches Objekt."[1] (Schröder 1985:5)

Despite this verdict, it is the goal of this thesis not only to describe the auxiliary ellipses that are used so abundantly in Early Modern German, but also to attempt a theoretical account of them. This includes an analysis of their diachronic development, their licensing conditions and their function.

1.1. The topic

This thesis is concerned with the ellipsis of finite auxiliaries in the history of German. The type that interests us here emerges in the second half of the Early Modern German (EMG) period (1350-1650), that is, in the 15th century. The most common type is exemplified by (1), where the finite (plu-)perfect auxiliary, *haben* 'have', is omitted from an adverbial clause.

(1) Als   nun die Storcken ausgelacht   [_], gerahtschlagt sich
     when now the storks   finished.laughing [had] deliberated   REFL
     Gargantua mit seim Hofgesind was   zu thun sey.
     *G.   with his   domestics what to do   is.*SUBJ
     'When the storks had finished laughing, Gargantua deliberated with his
     domestics what to do'

---

[1] 'For the rampant linguistic masturbations, Early Modern German is an unsuitable field and Luther's language an unsuitable object.' [all translations of quotes in footnotes are mine, A.B.]

(Fischart (1590;302,22-23))

We will first discuss the entire range of auxiliary drop phenomena in EMG and subsequently discuss it against a more general background of ellipsis phenomena and an outline of the theoretical assumptions underlying this study.

1.2. The empirical domain

Early Modern German is the stage of German language history between 1350 and 1650 A.C.[2] From the second half of the 15th century on, it develops a variety of ellipses of finite auxiliaries.

The auxiliary ellipsis in embedded clauses as exemplified in (1) has come to be called the *afinite construction* by scholars of EMG like Admoni and Ebert.[3] This term refers to embedded clauses without a finite verb form which would normally be found there, that is, especially the auxiliary in a periphrastic construction. The term does not encompass the non-parallel ('ungrammatical') coordination ellipses of auxiliaries in main and/or embedded clauses[4], which in the literature on the topic are grouped together with regular coordination ellipses.[5] This thesis will, however, be concerned with both types of auxiliary ellipsis in EMG, the afinite construction as well as the non-parallel coordination ellipsis although the main focus of this thesis will be on the afinite construction. Regular coordination ellipses of the auxiliary will not be discussed, as these, unlike the two types mentioned, have been possible at all stages of the history of German and can be analysed by any theory of coordination ellipsis under identity.

1.2.1. The afinite construction

The type of auxiliary drop that occurs earliest and most frequently throughout in EMG is the one affecting the perfect auxiliaries *haben/sein* 'have/be', leaving behind the past participle.

(2)   die grosse Noth/ welche sie   in dem Schmalkaldischen Krieg
        the big   misery which they in the Schmalkaldian   war
        außgestanden [_]
        suffered   [have]
        'the big misery they suffered in the war of Schmalkalden'

(Schorer (1660; 5,01-02))

---

[2] Cf. Hartweg and Wegera (1989), Ebert et al. (1993).
[3] Cf. Admoni (1967; 1980), Ebert (1986), Ebert et al. (1993).
[4] Cf. section 2.4.3 below.
[5] Cf. Ebert et al. (1993:440ff).

Next to the perfect auxiliaries, *sein* 'be' in passive constructions can be dropped. This concerns both the present and present/past perfect of the *sein*-passive, but also the perfect of the *werden* 'become' -passive. *Werden* is only rarely dropped in the present tense of the *werden*-passive.[6]

(3) König Dieterich were   nicht gut   gnug/ das er oder sein
     king   D.   would.be not   good enough that he or   his

     Haußfraw verbündtnis mit jhm machen solten/ dann   er
     house.wife coalition   with him do   should because he

     vnehelich   geboren [_]   /
     illegitimately born   [was]
     'King Dieterich or his wife would not be good enough to make a coalition
     with because he was born as an illegitimate child.'

                                              (Bange (1599; 21r,09-10))

(4) als   nun den dritten Tag/ der Hauptman von allen Officirn vnd
     when now the third   day the major   of   all   officers and

     Herrn von Hoff ins   Closter   zu den Augustinern zur
     sirs from court into.the monastery to the Augustinians to.the

     begrebnis begleitet   [_]
     funeral   accompanied [became]
     'when on the third day the captain was accompanied to the funeral in
     the monastery of the Augustinians by all officers and noblemen of the
     court ..'

                                              (Aviso (1609; 3^1,30-32))

Furthermore, *sein*, and sometimes *haben*, can be omitted in constructions with *zu*- 'to'-infinitive. These have a certain modal meaning. With *sein*, the construction is sometimes called 'modal passive' (Demske-Neumann 1994). With *haben*, the meaning is similar to the English obligational construction *have to* + infinitive or the Latin Dative + gerund + *esse*, e.g. *librum mihi legendum est* 'the book has to be read by me/I have to read the book'.

(5) das also nichts   sonders inn der Jnsel/ dieweil sie nit bewohnet
     that thus nothing special in the island while   it not inhabited

     wirt/ zufinden [_] / dann allein die wilde Capparen
     is   to.find [is] than alone the wild   capers
     'that thus on this island, which is not inhabited, nothing special can be
     found apart from wild capers'

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[6] In what follows, I will occasionally use the terms stative and dynamic passive for the *sein*- and *werden*-passives, respectively, although it has to be kept in mind that they only grammaticalise as such in the later 16th century (cf. section 2.4.2). Before this grammaticalisation, the construction *werden* + passive/past participle describes a transition into a state and the construction *sein* + passive participle designates the state attained. I am only using these terms as denominators here.

(Rauwolf (1587; 12,27-29))

(6)   dessen   er sich in seinem Stand im   wenigsten nicht zu
       which.GEN *he* REFL *in his   class in.the least   not   to*
       beschämen [_]
       be.ashamed had
       'of which he in his class would not have to have been ashamed in the
       least'

(Andreae (1614/16; 24,10-11))

Besides, the copula in predicative constructions and, rarely, future auxiliaries
(*werden* 'be(come)' + infinitive) and modal verbs can be dropped.

(7)   da er nun schŭldig [_]/ wird gewißlich ein ernstlich Exempel an jhme
       if he now guilty   [is] will certainly a   serious   example of him
       statuirt werden.
       made   become
       'If found guilty, he will certainly be punished rigorously.'

(Aviso (1609; 3^6,1-2))

(8)   das man wol [_]   fragen dörffen/ obs Natur-   vnd müglich [_]/
       that one well [will] ask   may   if.it natur[al] and possible [is]
       das ...
       that ...
       'that one may well ask if it is natural and possible at all that ...'

(Schæferey (1642; 20-23))

1.2.2. Other types of auxiliary ellipsis in EMG

The common trait of the ellipses ('afinite constructions') in (2)-(8) is that
they occur only in embedded clauses. But in EMG, auxiliaries could also be
dropped from main clauses, namely in coordinations. As coordination ellipses
have always been and still are possible in German, such cases might not seem
very interesting at first sight. However, the auxiliary ellipses in coordinations
in EMG do not necessarily have to obey the restrictions known to hold for
conjunction reductions such as Gapping or Right Node Raising (RNR), which
still exist in present-day German.[7] For example, *sein* 'be' may be overt in one
conjunct, while *haben* 'have' is missing in the other, as in (9). Schröder (1985)
calls such cases 'ungrammatical' (coordination) ellipses. Such 'ungrammatical',
that is, non-parallel, ellipses of auxiliaries in coordinations can occur both in
main, (9), and embedded clauses, (10).

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[7] For the properties of Gapping and RNR and literature references, cf. section 2.4.3 below.

(9)   vnd die drey gebrueder **sein** auf solch ersuechen khumen/ vnd [_]
      and the three brothers   are   on such request   come   and [have]
      das gepiet zwischen einander   außgetailt
      the land   among   eachother out.divided
      'On this request, the three brothers came and divided the land among
      them'

                                                    (Herberstein (1557;2v,34-35))

(10) So   ist gmein   wenn der wyn im   kopff überhandgenommen
      such is common when the wine in.the head taken.over
      [_]   vnnd meister worden **ist**/
      [has] and   master become is
      'This is typical when the wine takes possession of the head and becomes
      its master.'

                                                    (Lavater (1578;17v,02-04))

Besides examples with different auxiliaries like the last two, there are also cases
where overt and covert auxiliary disagree in number and/or person, (11). It is
also possible that the auxiliaries in all conjuncts are covert, (12).

(11) drumb   siht man itzt/ das welschlandt/ fast   wust   **ist**/
      therefore sees one now that Italy   almost depredated is
      kloster   vorstoret [_]/   bistumb   vortzeret [_]/
      monasteries destroyed [are]dioceses consumed.up [are]   prelatures
      prelaturn vnnd   aller   kirchen tzinße   gen   Rome tzogen [_]
      and   all.GEN 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;C3ᵇ,29-32))

(12) Als   nun dieses Freudenfest   etliche tage gewähret [_]   / und
      when now this   joy.celebration several days lasted   [had]   and
      manche   kurtzweil/ mit rennen/ stechen und dergleichen
      quite.some distraction with races   stabbing and such
      Ubungen/ verbracht worden [_]
      exercises   spend   become [was]
      'When this celebration had lasted for several days and some time of
      distraction had been spend with activities such as races, sword-fighting
      and more such exercises'

                                                    (Birken (1668; 69B,08-12))

Although the non-parallel auxiliary ellipses in coordinations share certain features with conjunction reductions, they crucially lack the identity of the elided with overt material. Therefore, we will consider them in this study along with the uncoordinated afinite constructions because they emerge and disappear along with these.

1.2.3. Summary and outlook

Summing up, the auxiliary drop phenomena in EMG are divided into two groups, (i) the afinite construction, that is embedded clauses without finite verb and (ii) other auxiliary ellipses which mainly concern ellipses in coordinated clauses, embedded or not. It is a question however if these two groups are really so different as Ebert et al. (1993) suggest. As indicated above, in this thesis, I will mainly focus on the afinite construction, and extend the analysis to the non-parallel auxiliary ellipses in coordinations only in the end.

1.3. Embedding the problem

In this section, the auxiliary ellipses in EMG – especially the afinite construction – will be compared to other (verbal) ellipsis phenomena. We will attempt a typology of such phenomena in order to determine the position of EMG auxiliary ellipses with respect to this general background. This positioning will have direct implications for my approach to the licensing and recovery of EMG auxiliary drop.

Licensing, identification and recovery of elliptic material are the central issues in theories concerned with ellipsis phenomena. The three terms are related but distinct. *Licensing* refers to the formal grammaticality of the elliptic category, *identification* to a kind of 'flag' marking the site of the ellipsis and *recovery* pertains to the interpretational side of the ellipsis. In order to illustrate what is meant by this, I will briefly discuss the analysis of Lobeck (1995) of the three ellipsis phenomena Verb Phrase Ellipsis (VPE), Sluicing and Ellipsis in NP (NPE); cf. (13)-(15), taken from Lobeck (1995:3f).

(13)   **VP Ellipsis**
       Because [$_{IP}$ Pavarotti couldn't [$_{VP}$ e]], they asked Domingo to sing the part.

(14)   **Sluicing**
       We want to invite someone, but we don't know [$_{CP}$ who [$_{IP}$ e]]

(15)   **Ellipsis in NP**
       Although [$_{NP}$ these [e]] were pretty good, those books will never be bestsellers.

Lobeck (1995) argues that a generalised form of the Empty Category Principle (ECP) achieves the licensing and identification of the empty category in these

three constructions. This empty category she takes to be an empty (base-generated) non-NP pronominal category akin to nominal *pro*. The latter is assumed to be licensed under the ECP as well in those languages which allow *pro*-drop, cf. (16).

(16)   **Licensing and Identification of pro**
        An empty, non-arbitrary pronominal must be properly head-governed, and governed by an X° specified for strong agreement.

The three phenomena of VPE, Sluicing and Ellipsis in NP, to which she restricts the term 'ellipsis', have in common that some head, specified for what Lobeck defines as 'strong agreement', must properly head-govern the empty category. On an intuitive level, this can easily be seen in the examples (13)-(15): in (English) VPE, some element of the category 'auxiliary' must be present, in Sluicing, a [+WH]-complementiser, and in ellipsis in NPs, some functional head of the category D or possibly Num.[8] 'Strong agreement' means that this licensing head needs to lexicalise a sufficient amount of (the right kind of) grammatical features such as Person, Number, or, as in Sluicing, [*wh*]. The version of the ECP underlying (16), requiring proper head-government in addition to proper government (either θ- or antecedent government), is inspired by Rizzi (1990). The relevant definitions (adapted from Lobeck (1995)) follow:

(17)   **Government**
        a governs **b** iff **a** m-commands **b** and no barrier intervenes between **a** and **b**.

(18)   **Proper Head Government**
        a properly head-governs **b** iff **a** is a head and governs **b** within its most immediate projection.

(19)   **Strong Agreement**
        An X° is specified for 'strong agreement' iff X°, or the phrase (Spec) or head with which X° agrees, morphologically realizes agreement in a productive number of cases.

(Lobeck 1995:51)

The following representations illustrate Lobeck's approach.[9]

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[8] Agreeing adjectives of course license NPE as well, but Lobeck would probably argue that the agreement on the adjective is due to a functional head (e.g., D) selecting the adjective as well.

[9] Cf. Lobeck (1995:50), her (42).

(20)   a.   **Sluicing**   CP

                                        SpecCP   C′

                                          |
                                        who   COMP   IP

                                                      | |
                                                   [+WH]   [e]

        b.   **VP Ellipsis**   IP

                                        SpecIP   I′

                                          |
                                        Mary   INFL   VP

                                                      | |
                                                     is   [e]

        c.   **Ellipsis in NP**   DP

                                        SpecDP   D′

                                          |
                                        John's   Det   NP

                                                      | |
                                                   [+POSS]   [e]
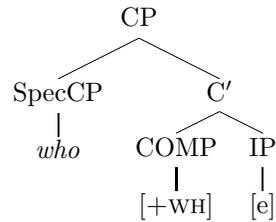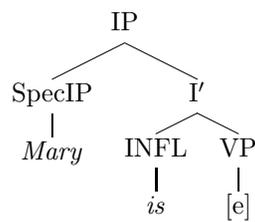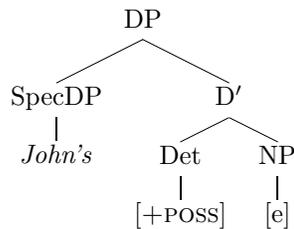
VPE, Sluicing and NPE form a natural class under this analysis and are distinct
from other ellipses such as Gapping or Stripping. Gapping is a medial forward
ellipsis including at least the finite verb, but possibly more material, as long
as the gap remains flanked by overt material. Stripping is a deletion of all but
one constituent under identity with corresponding material in the preceding
clause.

(21)   **Gapping**
        Mary met Bill at Berkeley and Sue [e] at Harvard.

(22)   **Stripping**
        Jane loves to study rocks, and [e] geography too.

All these ellipsis constructions have in common that the recovery of the elliptic
material is somehow done under referential identity to an overt category in the
adjacent clause. Note that, as can be seen from comparing e.g. (13) and (21),
the two clauses do not have to be syntactically parallel in (13)-(15), but that
they have to in (21)-(22). In the following table, I have compiled the properties
of the different constructions from Lobeck (1995) in order to illustrate this
typology of ellipses. Since it is not directly relevant for the main topic of
this thesis, I will not discuss the evidence in detail. The abbreviations in the
leftmost column mean (1) that the empty category has to be in clause-final

position, (2) that the ellipsis can also occur in a subordinate clause, (3) that the 'gap' can precede its antecedent, (4) that the elliptic constituent has to be phrasal, (5) that the ellipsis can cross sentence boundaries, (6) that 'flagging' is obligatory and (7) that the recovery proceeds under identity.[10]

(23)

	VPE	Sluic.	NPE	Gapping	Stripping
final	√	√	√	*	(√)
subord.	√	√	√	*	*
backward	√	√	√	*	*
phrasal	√	√	√	(√)	(√)
across sent. bound.	√	√	√	*	√
flagging	√	√	√	*	*
recov.u.ident.	√	√	√	√	√

A further type of somehow elliptic constructions involving empty verbal material and therefore potentially comparable to EMG auxiliary drop are constructions argued to involve empty verbs, that is, verbs that are stored in the lexicon with a number of features excluding a phonological matrix. Such phenomena have been discussed by Inkelas (1993) for Nimboran, Hoekstra (1997) for Frisian, van Riemsdijk (2002) for Germanic OV-languages, esp. Swiss German and Dutch, and Marušić and Žaucer (2004a;b) for Slovenian.

For exposition, I will only discuss van Riemsdijk's proposal in more detail here. According to van Riemsdijk, the West Germanic OV-languages have a phonologically null verb GO (GAA, GAAN, ..., depending on the particular language) in their lexicons which can occur as the main verb in constructions with modal verbs in examples such as (24) (henceforth M+*GO* construction).

(24)　　Die doos kan naar de zolder [GAAN]
　　　　this box   can to   the attic [GO]
　　　　'This box can be put in the attic'

Van Riemsdijk provides evidence for the following assumptions:

1. There is a phonologically null 'main' verb, GO (GAA, GAAN, ...).
2. The presence of the empty verb is 'licensed' or 'flagged' by the presence of a modal verb.
3. The presence of the empty verb is 'licensed' under adjacency to the modal verb, that is, they have to occur within the same verb cluster. However,

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[10] Among the properties Lobeck discusses are also the violability of the Complex Noun Phrase Constraint and the possibility for the empty category to be recovered by a pragmatic antecedent (all 'ellipses', that is VPE, Sluicing and Ellipsis in NP, obey the CNPC and allow pragmatic antecedents, but not Gapping and Stripping). I chose to omit them from the table in (23) because it is already clear from the other properties that the phenomena form two distinct classes.

    the trace of the modal verb is sufficient as a flag, as verb movement is possible with the modal verb moving to the second position in main clauses.

 4. The cross-linguistic variation w.r.t. to the construction is due to a parametric difference which (with abstraction from West Flemish) comes down to the possibility of Verb Projection Raising, which has been argued to be licensed under 'adjacency' as well (Haegeman and Riemsdijk 1986). Basically, the account comes down to a difference in the level at which the 'adjacency' relation has to hold, either between the two heads (modal verb and GO) or between the modal verb and a projection of GO ("Head-association" in the Dutch-German type languages versus "Projection-Association" in the Swiss-German type languages).

The main difference between the M+GO construction and the ellipses discussed earlier seems to be what van Riemsdijk calls the difference between ellipsis under identity and specified ellipsis, M+GO being an instance of the latter. Another difference is that the target is potentially a head, not a maximal projection / phrase, at least in the Dutch-German type languages.[11] Like the above ellipses however, the identification of the 'gap' requires a type of 'flagging', namely the presence of a modal verb in the same verb cluster. A further similarity is that modal verbs (at least in van Riemsdijk's analysis) are functional elements. Also in line with Lobeck's analysis is the possibility for a trace of head movement to act as a licenser as long as this trace is licensed itself.

 Let us compare M+GO to the ellipses discussed by Lobeck. Some properties are not relevant as M+GO is no ellipsis recovered under identity. Therefore the restrictions on directionality or subordination do not apply (−). According to van Riemsdijk's analysis, it depends on language-specific parametrisation whether the targeted category is phrasal or a head (therefore, $\pm$). The extended table (23) thus looks as follows now:

(25)

	VPE	Sluic.	NPE	Gapp.	Stripp.	M+GO
final	√	√	√	*	*	√
subord.	√	√	√	*	*	−
backward	√	√	√	*	*	−
phrasal	√	√	√	(√)	(√)	$\pm$
acr. stc. bound.	√	√	√	*	√	−
flagging	√	√	√	*	*	√
recov.u.ident.	√	√	√	√	√	−

Van Riemsdijk (2002:184ff) briefly addresses the Swedish finite *ha*-omission construction, suggesting a parallel between this construction and M+GO.[12]

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[11] Of course, for NPE, the phrasal nature of the elliptic category can be debated. According to Lobeck's analysis of NPE however, a full NP is elided, licensed by the heads of the functional shells around it (D, NUM, ..).

[12] It must be noted that not only Swedish, but also Norwegian allow the ellipsis of the *infini-*

Swedish finite *ha*-omission is formally very similar to EMG finite auxiliary ellipsis. The basic property of both is that they are only possible in embedded clauses, but ruled out in independent clauses. Unlike *ha*-omission in Swedish, the EMG afinite construction was not restricted to the perfect auxiliary *haben* 'have'. Also perfect *sein* 'be', passive *sein* 'be' and *werden* 'be(come)', *sein* 'be' and *haben* 'have' in modal constructions with zu 'to'-infinitive, and the copula could be dropped, cf. section 1.2. Let us consider three problematic points of a comparison of these finite auxiliary ellipses and the M+*GO*-construction.

First, while it is clear that a functional verb, namely the auxiliary, is missing in case of Swedish/EMG auxiliary drop, it is intuitively a main verb that is dropped in the M+*GO* construction. According to Van Riemsdijk (2002), the main verb, GO, is rather light, suggesting comparability with other light verbs such as causative verbs or motion verbs in temporal-aspectual periphrases. However, in the case of the latter, there are indications for a certain degree of functionality, while the assumption of GO was originally triggered by the absence of a lexical predicate. If GO was indeed a semi-functional verb rather than a full lexical verb, the original problem would remain: what is the lexical predicate of (24)? According to Van Riemsdijk (1998), there should certainly be one, or the extended verbal (M-) projection would be head-less.

The second point concerns the presence of a flag. Although he does not say directly what he has in mind, it can be understood from Van Riemsdijk (2002:185f) that the flag in the Swedish cases must be the (participle of) the main verb. Van Riemsdijk argues (fn. 58) that because it would be the elliptic element that would be moved away in V2 clauses, not the flag, *ha*-omission is restricted to embedded clauses. According to him, a flag-chain is only licit if the flag is the head of the chain, not its foot. However, this argument has to be treated with caution. Normally in ellipsis, licensors strongly tend to be functional elements governing the site of ellipsis, cf. Lobeck (1995). Contrary to that, in Swedish and EMG, the licenser would be the perfect participle of the lexical verb, which probably does not govern the site of the dropped auxiliary (though there is arguably morphological selection under an approach such as Emonds (2000)). To include all possible lexical predicates in the class of elements flagging auxiliary ellipsis does not seem an option, as that class would in fact be nothing that deserves this name, being far too heterogeneous and lacking any clear restrictive criteria. It is possible to argue that the morphological shape of the main predicate is the determining factor. But at least in EMG, which allows also other finite auxiliaries besides perfect haben have to be dropped, also the class of morphological shapes is rather heterogeneous (perfect and passive participles, infinitives with and without zu to, all kinds of predicates in copular constrcutions). The no-government-problem is proba-

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tival perfect auxiliary *ha* in the complement of past tense modals with a counterfactual reading. This construction is of course much more similar to the West Germanic M+*GO* construction Van Riemsdijk (2002) is concerned with. However, in section 7 of his paper, he explicitly draws a parallel with the ellipsis of *finite ha* in Swedish.

bly removed by Van Riemsdijks definition of adjacency/association of flag and
empty element in the verb cluster, in case of auxiliary drop one would assume
Head-association.

As argued by Julien (2002), however, the presence of a locally present overt
subject or relative pronoun is essential for the grammaticality of Swedish *ha*-
omission. It is crucial to mention that a trace is not enough, as amply discussed
by Julien (2002). Contexts as in (26) require (otherwise optional) resumptive
pronouns after subject extraction if ha is dropped. The Finland Swedish ex-
ample in (27) shows that *ha*-drop is excluded when there is no resumptive
pronoun. Finland Swedish lacking the that-trace effect, resumptive pronouns
are not required in this construction, so the ungrammaticality must be due to
the dependence of *ha*-drop on an overt subject.[13]

(26)   Detta är studenten   som jag undrar vad   *(han) (har) läst
        this   is student.the who I   wonder what he   has   read

(27)   Kalle$_i$ kan jag garanterer att   t$_i$ *(har)   klarat sig
        Kalle can I   guarantee that has managed REFL
        'As for Kalle, I can guarantee that he has made it.

We can take it therefore that there is a flag in Swedish finite *ha*-drop (and
similarly the EMG afinite construction, for which I have not found a subject-
less example in my corpus), although not as envisaged by Van Riemsdijk (2002).
It seems that the identifier of the gap, the subject/relative pronoun, has to be
overtly present in the same phase as the gap. But of course, this is still no
account for the restriction to embedded clauses. Cf. chapter 4.

Yet another difference remains. Full parallelism of M+*GO* and EMG/Swe-
dish finite auxiliary drop would imply that the empty element is a phonolog-
ically null auxiliary in the lexicon. Such an approach would fail to account
for the optionality of the ellipsis, because once triggered, flagged and there-
fore licensed, it should always occur. M+*GO* constructions are crucially not
equivalent to any possible lexicalisations of a main verb, as was amply demon-
strated by Van Riemsdijk himself. As announced in footnote 12, I have ex-
plicitly not discussed the possibility to drop non-finite ha in the complement
of modal verbs with a counterfactual interpretation which is available not only
in Swedish but also in Norwegian Julien (2002). Here, there do seem to be
interpretive differences between the elliptic and the non-elliptic cases as in case
of M+*GO*. However, Julien (2002) provides evidence that they have to receive
an explanation different from finite ha-omission in Swedish. The optionality
of finite auxiliary drop therefore points at a solution outside the lexicon, e.g.
PF-deletion as proposed by Julien.

We can conclude that Swedish and EMG auxiliary drop are different from
the M+*GO* construction exemplified in (24). In fact, putting their properties

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[13] The examples are taken from Julien (2002). The notation with the brackets and asterisks
      in (i) means that the auxiliary is optional as long as the resumptive pronoun is overt.

next to eachother as in (28) suggests that the two constructions are mirror images of each other. However, even this does not hold to 100%: while in the M+GO-construction, a modal verb has to be overtly present, modal verbs are hardly if at all omitted in the EMG constructions.

(28)

	M+GO	finite aux-drop
empty element	main verb	auxiliary
finiteness	infinitive	finite verb
only emb.cls.	no	yes

Given these differences, I propose that we are neither dealing with a base-generated gap as proposed for VPE, Sluicing and NPE by Lobeck (1995) nor with elements that are lexicon entries but lack a phonological matrix as argued by van Riemsdijk (2002) for the M+GO construction. Rather, in chapter 4, I will propose that the ellipsis of the finite auxiliary is the consequence of not spelling out at PF locally recoverable features of a functional head.

1.4. The corpus analysis: remarks on the methods

A few comments on the methods employed are in order as of course, all corpus search is guided by assumptions and hypotheses. This section will present these assumptions and hypotheses as well as the details of my corpus analysis.

For the corpus, 25 texts from the later EMG and the older Modern German periods (1450-1700) were chosen, five texts in each time segment of 50 years (1450-1500, 1500-1550, 1550-1600, 1600-1650, 1650-1700). Furthermore, five texts from the 18th century were included in order to see the decline of the afinite construction more clearly, which begins around 1700.

1450-1500
von Eyb, Ehebüchlein (1472)
von Wyle, Translatzen-Brief (1478)
von Tepl, Ackermann (1482)
Edlibach, Chronik (1486)
Geiler von Keysersberg, Bilger (1494)

1500-1550
Fortunatus (1507)
Springer, Indienfahrt (1509)
Luther, Adel (1520)
Augsburger Konfession (1530)
Ickelsamer, Grammatica (1534)

1550-1600
Herberstein, Moscouia (1557)
Lavater, Gespenster (1578)
Rauwolf, Beschreibung (1582)
Fischart, Geschichtsklitterung (1590)
Bange, Chronik (1599)

1600-1650
Kepler, Stern (1604)
Aviso (1609)
Andreae, Rosenkreutz (1614-16)
Opitz, Poetery (1624)
Schaeferey (1642)

1650-1700
Moscherosch, Gesichte (1650)
Schorer, Chronik Memmingen (1660)
Schottel, Ausführliche Arbeit von der teutschen Haubtsprache (1663)
Birken, Spiegel des Erzhauses Oesterreich (1668)
Eschenloher, Arzt (1678)

1700-1800
Gottschedt, Redekunst (1736)
Lamprecht, Alcina und Alfonso (1737)
Klopstock, Von der heiligen Poesie (1754/55)
Herder, Sprache (1770)
Adelung, Lehrgebäude (1782)

The reason why no texts earlier than 1450 were analysed has to do with the fact that (i) already in the texts from between 1450 and 1500, auxiliary ellipsis hardly occurs at all, (ii) there are only very few texts which contain (enough) periphrastic verb forms to legitimate such an analysis (iii) certain syntactic changes seem to have to precede the emergence of the afinite construction (working as antecedent conditions), as will be discussed in chapter 3. These changes only begin to take place in the 15th century. Furthermore, this research is not so much interested in philological details, and therefore does not intend to present the earliest occurrences of the afinite construction, but in the study of a language change in progress, its causes and development.

Concerning the particular texts chosen, I restricted myself to original German texts, that is, no translations from Latin or other languages were used. The intention was furthermore to find a language that was more or less 'standard' or common. I am aware that in the period in question, there was no standard language yet. But texts intended for a wider distribution, exceeding dialectal/ regional boundaries, often show standardising/nivellation tendencies.

With the so-called 'Druckersprachen' (printer's languages), cross regional near-standards developed.[14] Therefore, texts intended for a general cross-dialectal public (from various geographic areas), in which such standardising tendencies could be expected, were chosen. Such texts are e.g. travelling accounts (Springer, Rauwolf), chronicles (Herberstein, Bange, Schorer, Birken, Eschenloher), popular books (*Fortunatus*) and one newspaper (*Aviso*). Similarly, *An den christlichen Adel deutscher Nation* by Luther was chosen because of Luther's well-known influence on the standardisation of the language as well as his commitment to write a German as spoken by the man in the street (cf. his *Sendbrieff vom Dolmetschen*). The same reason applies to the choice of grammars and similar works (Ickelsamer, Opitz, Schottel), as they are concerned with the language use itself. The other texts were mainly chosen because of their descriptive content (like the chronicles and travelling accounts) as in such texts, the number of periphrastic constructions can be expected to be higher. A cooking recipe for example or any other text only containing present tense would not be very representative for our purposes – even if the author would normally use the afinite construction, the stylistic restrictions of the chosen text form would not let them show up. The descriptive content factor was also decisive in the choice of the two Swiss German texts (Edlibach and Lavater), which especially in case of Edlibach do show strong dialectal features.

Thus, the common trait of the chosen texts is that they, being widely distributed, were intended to be understood by a larger public (also cross-regional), and can therefore be expected to reflect the state of the language rather well. On possible problems from a point of view of statistic methodology, due to the individual variation between authors, cf. appendix B.1.

Where possible, I based myself on electronic editions of EMG texts, because of the easier processability, most notably the IKP Bonn online corpus of EMG[15], some texts provided by the Bibliotheca Augustana and by Thomas Gloning of Marburg University[16], but apart from the IKP corpus, I always compared the electronic texts with printed editions.[17] Some of the texts used for the corpus are only available as printed editions.

As was already indicated in the beginning of this section, from every 50-year time segment between 1450 and 1700, five texts or text portions were chosen. The portions usually consist of about 30 normalised pages (30 lines of 8-10 words per line each page). That means that of a text with smaller pages, more pages were excerpted. Some of the texts were shorter than this, e.g. von Wyle and Kepler. Still, it was ensured that in every time segment, a corpus of on average 45,000 words was considered. The total corpus encompasses about 286,000 words. The total number of occurrences of auxiliary ellipses in the corpus is 2,474.

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[14] Cf. e.g. Hartweg and Wegera (1989:ch. 4).

[15] Bonner Frühneuhochdeutschkorpus; `http://www.ikp.uni-bonn.de/dt/forsch/fnhd/`

[16] `http://www.fh-augsburg.de/~harsch/germanica` and `http://staff-www.uni-marburg.de/~gloning`, respectively.

[17] Only of the Lamprecht-text I could not find a printed edition.

The reason for why such rather large excerpts were used instead of smaller portions of more authors is that especially in the first time segment, 1450-1500, auxiliary ellipses are very rare. Using a smaller portion could have led to a distorted result. For example, if there are only three occurrences in a whole text of 10,000 words, and two happen to occur in one page and one happens to choose only this one page and perhaps a few more around it, it may seem as if the probabilities for the occurrence of an auxiliary drop were much higher than they are really. The same, but inversely, holds if a portion is chosen in which there happens to be no ellipsis at all, but the whole text does contain some. A case in point are title pages which usually contain a lot of auxiliary ellipses of the type this study is concerned with, even if the remainder of the text does not.

I am well aware of the fact that my corpus is far too small to make statistically sound statements about the state of the whole language (that is, group of speakers) at any point in the period under consideration. In order to get a more fine-grained picture, one would probably have to look at material from all social layers, all regions, and from every single year. The absence of an automatically searchable electronic corpus of EMG (the available online resources offer only a limited choice of texts and there is no automated search tool), and the use of printed text editions made the work very time-consuming. Therefore, my quantitative analysis can do no more than point out certain *tendencies* in the – written – language of some authors (cf. appendix B.1).

With these cautionary remarks in mind, I would still like to interpret the discernable spread and increase in number of the afinite construction across time and regions as a reflex of a general tendency in the language, even though it is only studied in the written language of a very small number of speakers. Still, it will not be claimed that the data *prove* anything for the whole population, they can only be taken as what they are: the output of individual speaker's grammars.

1.5. General theoretical assumptions

The goal of this thesis is twofold. On the one hand, I seek to give a 'synchronic' account of the licensing conditions on an auxiliary drop such as the one under consideration here, on the other, its historical development – emergence, spread, and disappearance – has to be explained as it poses questions for a theory of language change.

For the account of the licensing conditions, we will need to rely on certain background assumptions about the syntactic structure of constructions with auxiliaries and the representation of auxiliaries. These will be discussed in section 1.5.1. For the account of the syntactic changes that bring up the afinite construction and let it disappear again, we need a theory of diachronic variation and of how a language can change. The general theoretical background for this is the Minimalist variety of the Principles and Parameters (P&P) approach

as outlined in Chomsky (1995; 2001). The underlying assumptions will be discussed in subsection 1.5.2.

1.5.1. The structure of periphrastic constructions

In order to be able to account for the recovery of the dropped auxiliary, we need to understand what structures underlie the constructions with auxiliary verbs. This section will discuss the advantages and disadvantages of proposals made in the literature. I will synthesise them proposing structural representations for them that I will argue to best capture the EMG facts.

1.5.1.1 Preliminaries: What is an auxiliary verb?

Throughout the history of Generative Grammar, there have been different positions w.r.t. the question what an auxiliary is. An important question concerns the ontological status of auxiliaries – do they have the same status as main verbs or are they what in recent frameworks within Generative Grammar are called functional heads. Despite the Ross' (1969) argument that auxiliaries are just the same as main verbs, that is, they are not only verbal ([+V]), but also project their own VPs and even Ss (maximal clausal projections), it cannot be denied that auxiliaries have properties that set them apart from lexical main verbs. In many languages, they are restricted in their morphological shape and their syntactic properties, and often appear to be semantically bleached w.r.t. possibly existing lexical cognates or lexical predecessors from which they are derived. Furthermore, they generally perform a certain function on the main verb of their clause, like expressing temporal, aspectual, or modal information if there are no synthetic means (inflectional morphology on the main verb) for these functions available in the language. That is, they have a function similar to inflectional morphology, semantically forming a complex predicate with the main verb, than as independent verbs taking DP or CP complements.

Heine (1993:22-24) gives a voluminous compilation of core properties of auxiliaries, not necessarily all of which are relevant for our purposes, which may define them as a natural class. In his terminology,

(29) "the term *auxiliary* is employed to refer to a linguistic item that combines a number of the characteristics that have commonly been associated with auxiliariness [...]; the higher the number of characteristics, the more likely a given item to constitute a "good example" of an auxiliary. A "good auxiliary" is verblike to some extent and is used either to place the situation described in the sentence with reference to deictic time (tense), to ascribe a temporal contour to it (aspect), or to assess its reality (modality)."

(Heine 1993:22)

An approach that takes the parallel with inflectional morphology seriously is Emonds (2000). According to him, the Lexicon is split into two parts, the Dictionary and the Syntacticon. The Dictionary is the place where open-class lexical items with purely semantic features reside, while the Syntacticon is the storage place for closed-class grammatical bound and free morphemes. If they lack semantic content and only consist of syntactic features, the latter are inserted only post-derivationally, at PF. As Syntacticon entries can be either bound or free morphemes, the parallelism between inflectional morphology and auxiliary verbs is established. Emonds' approach will be discussed in more detail below.

The question is whether all items that are called auxiliary verbs form a natural class and how this class is defined. For English, Haegeman (1994:65-68) identifies two syntactic and one semantic property that differentiate auxiliaries and lexical verbs: auxiliaries, but not lexical verbs, undergo Subject-Auxiliary Inversion (SAI) in yes/no-questions, they precede the negation marker *n't* and they do not assign θ-roles, but are transparent for the thematic properties of the main lexical predicate. This is illustrated in (30)-(32), taken from Haegeman (1994:66f).

(30)   SAI
        a.   John eats chocolate.
        a′   *Eats John chocolate?/Does John eat chocolate?
        b.   John has eaten chocolate.
        b′   Has John eaten chocolate?/*Does John have eaten chocolate?

(31)   Placement w.r.t. negation
        a.   John eats chocolate.
        a′   John {*eatsn't/doesn't eat} chocolate.
        b.   John has eaten chocolate.
        b′   John {hasn't eaten/*doesn't have eaten} chocolate

(32)   Thematic transparency
        a.   Poirot accuses Maigret.
        b.   Poirot {has accused/is accusing/...} Maigret.

An important property of English modal verbs is furthermore that they do not have non-finite forms, that is, they cannot occur in infinitival complements.

(33)   *Peter seems to {can/must/will/shall/may} know that.

As discussed extensively in Erb (2001), this latter property also holds for the German 'future' auxiliary *werden* 'be(come)', periphrastic *tun* 'do', and epistemic modals. The two syntactic properties exemplified by (30) and (31) are of course special to English. Nevertheless, there are syntactic properties that set German auxiliaries apart from lexical verbs, most notably the kinds of complements they select, namely infinitives and participles.

(34)

verb	complement type
pass. *werden* 'become'	passive (past) participle
perf. *haben, sein* 'have, be'	past participle
'modal' *haben, sein* 'have, be'	*zu*-infinitive
fut. *werden* 'become'	bare infinitive
modal verbs (*müssen, können, wollen, sollen, mögen, dürfen*; 'must, can, want/will, shall/ought, would like, may')	bare infinitive (in epistemic and deontic use, in root use like transitive verbs)
raising verbs like *scheinen* 'seem'	*zu*-infinitive

Apart from these shared properties, the group of elements called 'auxiliaries' forms a rather heterogeneous class of verbal elements which perform different functions and take complements of a variety of shapes. Next to modals and raising verbs, we find 'pure auxiliaries' (especially *be*, also as copula[18], and perhaps *have*) which only have a functional value, expressing agreement, temporal or aspectual information, or functions concerning voice.

The auxiliary drop phenomenon researched in this thesis seems to affect only the so-called 'pure' auxiliaries: temporal/aspectual *haben* 'have' and *sein* 'be', passive *sein* and *werden* 'be(come)' and *sein* in its use with *zu*-infinitive ('modal passive') and as copula. Modal verbs, the future auxiliary *werden* and *haben* with *zu*-infinitive (a modal construction) are sometimes dropped as well, but very rarely and not systematically. The most frequently dropped auxiliaries in the whole period I considered in my corpus (1450-1800) are the present perfect auxiliaries *haben* and *sein*, followed by the past perfect (*Plusquamperfekt*) auxiliaries, *sein* as passive auxiliary and *sein* in the modal passive construction with *zu*-infinitive. Copular *sein* and the progressive passive auxiliary *werden* are also systematically omitted, but less frequently so. The exact numbers as well as the details of the diachronic development will be discussed in chapter 3.

1.5.1.2 Mono-vs. biclausal approaches

Having established that auxiliary verbs are defined by properties different from lexical verbs in their syntactic and semantic properties, it is time to address their formal representation. There are basically two main approaches. The first assumes that auxiliary verbs, despite all differences with lexical verbs, are still (main) verbs projecting their own (extended) verbal projection. The second approach views auxiliaries as the lexicalisation of functional heads in the extended projection of the lexical verb.

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[18] As Haegeman (1994:67f) notes, the copula shares the syntactic and semantic properties of auxiliaries.

1.5.1.2.1 Julien (2001): Auxiliary Constructions are Biclausal

Julien (2001) discusses the structural representation of complex tenses, that is, tenses with more than one temporal relation to be expressed.[19] She argues that in periphrastic tense constructions both the auxiliary and the nonfinite main verb are tense-marked, not only the auxiliary. In her terminology, *periphrastic tense construction* only extends to those constructions where both the main verb and the auxiliary show temporal inflection (as in participial constructions, cf. discussion below), and *not* to constructions like the English Future with *will* + infinitive, which she takes to be monoclausal. According to Julien, this treatment allows for a simple explanation of the semantics of complex tense constructions.

Julien assumes that each simple clause contains two temporal heads, T(Past) and T(Future), whereby the former dominates the latter, see (35).

(35)   TP(Past)

        T(Past)   TP(Fut)
        [±PAST]
               T(Fut)   VP
               [±FUT]
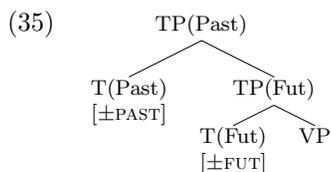
Both can be binarily valued (+ or −). Morphological tense markers are taken to be realisations of these heads. If a T head has the value [−], it does not get an overt realisation. In (37b), the bracket representation of (37a), the auxiliary has a full-fledged extended projection of its own, both clauses featuring all the functional heads, the two Tense heads, Fin°, and even C°.[20]

(36)   a.   She woul -d   write.
                 FUT PAST

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[19] The amount of literature on tense and temporal syntax is overwhelming. Semantically, most approaches position themselves with respect to Reichenbach (1947), who identifies three times: S (speech time), E (event time) and R (reference time). Tenses are then the grammatical means to express the possible relations between S, R and E, e.g. S, R_E for present perfect (S simultaneous with R, E before S and R). More recent approaches are e.g. concerned with the question whether times should be considered intervals rather than time points or pronominal categories and how the temporal semantics (such as S, R_E) is derived or composed in the syntax, e.g. if there is such a thing as temporal argument structure similar to verbal argument structure, where times are specifiers or complements of tense phrases. A more detailed discussion of these issues is outside the scope of the present study. The reader is referred to the works of Hornstein (1990), Stowell (1995; 1996), Giorgi and Pianesi (1991; 1997), Klein (1994), Demirdache and Uribe-Etxebarria (2000) and for German, Zeller (1994).

[20] The empty complementiser in (37b) has, according to Julien, here adapting ideas from Kayne (1993), actually incorporated into the V dominating it, which she takes to be abstract BE really, and which only by this incorporation becomes *have*.

b.

```
                    FinP
                   /    \
                she_i    FinP
                        /    \
                      Fin     TP(Past)
                    [+FIN]    /       \
                          T(Past)      TP(Future)
                         /      \      /        \
                    T(Fut)    T(Past)  t_j        VP
                    [+FUT]    [+PAST]            /   \
                    woul-_j    -d             t_i    V
                                                     |
                                                   write
```

(37) a.   She has   writt -en.
               PRES   PAST

      b.   [_FinP *she_i* [[_Fin[+FIN] [_TP(Past) [_T(Past)[−PAST]] [_TP(Fut) [_T(Fut)[−FUT]
           has_j] [_VP t_i [t_j [_CP [_C ∅] [_FinP [_Fin[−FIN]] [_TP(Past) [_T(Past)[+PAST]
           writt_k-en] [_TP(Future) [_T(Future)[−FUT]] [_VP t_i t_k]]]]]]]]]]]

Empirical evidence for the biclausal approach to the structural representation
of complex tenses comes, among others, from Greek data Julien quotes from
Alexiadou (1997). In Modern Greek, it seems to be possible to have two ev-
idential adverbs within the same sentence, one modifying the main verb, and
one modifying the auxiliary.

(38) a.   Pithanos/profanos o   Janis efige.
           probably/obviously the Janis left
           'Janis probably/obviously left'
      b.   *Pithanos profanos o   Janis efige.
           probably obviously the Janis left
      c.   *Pithanos o   Janis profanos efige.
           probably the Janis obviously left
      d.   O   Janis profanos ehi pithanos figi.
           the Janis obviously has probably left

The reason for adopting the more complex biclausal approach lies in the se-
mantic interpretation of the structures. Unlike in traditional approaches where
the auxiliary is assumed to save an otherwise unattached affix (*Stray Affix
Filter*, Lasnik (1981)), Julien assumes that the presence of an auxiliary in a
present/past perfect or in a future construction is necessary because it intro-
duces an extra clausal projection that is needed for reasons having to do with
the interpretation of the structure at the syntax-semantics interface. According
to Julien, an embedded (extended) projection introduces a new reference time

(R) relating the speech event (S) and the event expressed by the main verb (E):

(39)   "[I]f a construction involves reference times which do not
            correspond to E or S, it must contain several temporal heads,
            and possibly more than one extended projection."

                                                                    (Julien 2001:140)

So, the number of reference times and thus of extended projections in a sentence is a function of the number of tense elements in it. As shown above, Julien's system allows at most two tense elements in a special order to be realised on one verb, thus in one extended projection.[21]

There are a few (potential) problems with the assumption of a one-to-one relationship between functional heads in syntax and morphological realisation of functional markers. An often discussed example is the semantics of the German present tense (*Präsens*).[22] Partly depending on the context, the presence of adverbials and the aktionsart of the verb, it can assume present, present progessive, past and future.[23]

(40)   a.   Ich habe einen Sonnenbrand.
             I   have a   sun.burn
        b.   Ich esse (gerade) eine Stulle.
             I   eat just.now a   sandwich
             'I am eating a sandwich'
        c.   Stell dir vor, gestern   komme ich nach Hause, und der
             imagine   yesterday come   I   to   home   and the
             Kühlschrank ist kaputt!
             fridge   is broken
             'Imagine, when I came home yesterday, the fridge was broken'
        d.   Nächste Woche fahre ich nach Berlin.
             next   week   go   I   to   Berlin
             'I am going/will go to Berlin next week'

According to Julien, both temporal heads would be negatively specified, because no temporal marker shows up in the output. Also in cases like (41), this

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[21] Julien notes, however, that this does not mean that there are no limits to the number of reference times. The absence/ungrammaticality of e.g. double progressives in fact suggests that R is not a real event, but rather a "dummy" event (Julien 2001:141)). She assumes that an R can only be present when it has some specific function like topic time.

[22] Cf. e.g. Ehrich (1992), Thieroff (1992), Grewendorf (1995) and Klein and Vater (1998:226f).

[23] As Grewendorf (1995) and Klein and Vater (1998) argue, this variability of the German *Präsens* is also the reason for the differences in meaning between the German *Perfekt* and the English present perfect, because of the contribution of the flexible meaning of the *Präsens*.

is a problem because present tense is only a consequence of an underspecification of [± PAST] or [± FUT]. Hence, in (41), the insertion of the auxiliary does not seem to be necessary, assuming that in (41a), both heads are being underspecified (in Julien's analysis, progressive is a non-finite present tense), and in (41b) only the lower one. One verb form spelling out both heads like *woul-d* in (36a) would be sufficient and one would perhaps expect a finite form of the main verb in (41a), instead of a periphrastic form.

(41)   a.   She is   writ -ing.
                 PRES   PRES
        b.   She was   writ -ing.
                 PAST   PRES

Furthermore, what is potentially problematic with the biclausal structure in (37b) is the fact that the subject originates in the lower CP, because it is of course the external argument of the lexical verb. It raises however to the specifier of the higher VP before it moves to its final landing site in matrix SpecFinP. This seems to be a violation of the theta-criterion, cf. Chomsky (1981; 1986), Brody (1993).

(42)   **Theta Criterion**
       Each argument bears one and only one theta role, and each theta role is assigned to only one argument.

An approach that treats auxiliaries as functional heads does not encounter this problem and also does not have to postulate a full embedded FinP-CP projection, the evidence for whose presence is very weak. It is in fact only there because Julien adapts Kayne's (1993) idea of how auxiliary *have* is created – by incorporation of an empty Dative preposition into abstract BE, parallel to his analysis of possessive constructions. Kayne's original analysis does not mention CP at all but assumes that the complement of BE is a complex DP, even in periphrastic tense constructions.[24] At least from a German perspective, Julien's biclausal approach to complex tenses has to face evidence suggesting that there is no extra CP. Erb (2001) uses two types of tests to show that periphrastic verb constructions are in fact monoclausal in the sense of Van Riemsdijk (1998), two movement tests, and two tests concerning scope.

    As for the movement tests, she notes that for one, auxiliary constructions all behave like monoclausal structures in that they never allow extraposition of the infinitival complement of the finite verb.

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[24] Kayne's (1993) analysis of perfect constructions with *be*-equivalents as perfect auxiliary looks like (ia), with *have*-equivalents like (ib).

(i)   a.   [BE [$_{DP}$ DP$_{subj/i}$ [$_{D/P°}$ ... [$_{VP}$ t$_i$ [V ...]]]]]
      b.   [DP$_{subj/i}$ [BE+D/P$°_j$ [$_{DP}$ t$_i$ [t$_j$ ... [$_{VP}$ t$_i$ [V ...]]]]]]   *incorporation*
           D/P° ⇒ BE

(43)   *Intra-/Extraposition of the non-finite complement*
    a.   ... dass sie die Bücher gelesen   hat   *perfect*
        *that she the books   read.*PTC *has*
    a′ *... dass sie hat [die Bücher gelesen]
        *that she has   the books   read.*PTC
    b.   ... dass die Bücher gelesen   werden   *passive*
        *that the books   read.*PTC *become*
    b′ *... dass die Bücher werden   [gelesen]
        *that the books   read.*PTC *become*

Furthermore, only they, like monoclausal structures, allow for clitic climbing.[25]

(44)   *Clitic climbing (indirect object)*
    a.   ... weil   der Peter [*mir* ein Auto verkauft] hat
        because the Peter me   a   car   sold   has
    a′   ... weil   *mir$_i$* der Peter [t$_i$ ein Auto verkauft] hat
        because me   the Peter   a   car   sold   has

(45)   *Clitic climbing (direct object)*
    a. *?... weil   der Peter [seinem Nachbarn   es verkauft] hat
        *because the Peter his.*DAT *neighbour.*DAT *it sold   has*
    a′   ... weil   der Peter es$_i$ [seinem Nachbarn   t$_i$ verkauft] hat
        *because the Peter it   his.*DAT *neighbour.*DAT   *sold   has*
    a″   ... weil   es$_i$ der Peter t$_i$ [seinem Nachbarn   t$_i$ verkauft]
        *because it   the Peter   his.*DAT *neighbour.*DAT   *sold*
        hat
        has
    b. *?... weil   [dem   Nachbarn   es verkauft] wird
        *because the.*DAT *neighbour.*DAT *it sold   becomes*
    b′   ... weil   es$_i$ [dem   Nachbarn   t$_i$ verkauft] wird
        *because it   the.*DAT *neighbour.*DAT   *sold   becomes*

With regard to the scope tests, monoclausal structures only allow matrix/wide scope of negation, VP adverbs and manner adverbs. For negation, Erb shows, that auxiliary constructions allow only for a wide scope interpretation.[26]

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[25] In examples (43)-(48), I am citing a selection of her data. Some examples are slightly modified in case they are not clear enough. For example, in (44) she uses the complementiser *weil* 'because' which in spoken German can occur with V2 which would make the starred structures superficially grammatical, interpreting them as V2). Cf. Erb (2001:15-22).

[26] Remark: the starred readings in (46) are always hard to get. I do not know whether that has to be taken as evidence for the monoclausal nature of the constructions in question or whether there is simply no way to construct a narrow scope semantics. In (46a), for example, the ungrammatical reading would be something like an event of not-reading of the book which in (46b) would come out as 'the book becomes unread'. Henk van Riemsdijk (p.c.) points out that the interpretively deviant scope can be made visible in Verb Raising contexts. (ia) is the normal sentential negation, (ib) means something like

(46)   a.   Sie hat das Buch nicht gelesen.
              she has the book not read
              'It is not the case that she has read the book'
              *'It is the case that she has [not read the book]'
        b.   Das Buch wird   nicht gelesen.
              the book becomes not read
              'It is not the case that the book is (being) read'
              *'It is the case that the book is [not read]'

Furthermore, auxiliary constructions seem to allow only one sentential negation, not two, as could be expected if they were biclausal.[27]

(47)   a. *... weil   sie das Buch nicht [nicht gelesen] hat.
              because she the book not   not   read   has
        b. *... weil   sie kein Buch [nicht gelesen] hat.
              because she no   book not   read   has

Another scope-related test for monoclausality Erb employs is to check whether it is possible to use VP or manner adverbs which modify eventualities.

(48)   a.   Sie wird   das Buch oft   lesen.
              she will the book often read
              'In the future, she will often read the book'
              *'There is often a future such that she will read a book'
        b.   Sie hat das Buch oft   gelesen.
              she has the book often read
              'It is the case that she often read the book'
              *'It is often the case that she has read the book'

But if auxiliary constructions form a single complex eventuality, as Erb claims, double modification should be impossible. This is however not fully clear. In (49b) it seems as if *oft* 'often' modifies the temporal relation expressed by the auxiliary, while *schon* 'already' seems to modify the event time.[28]

'she should have **not-eaten** the cookies':

(i)   a.   ... weil   sie die Kekse nicht hätte essen sollen
              because she the cookies not   had   eaten should.IPP
              '... because she should not have eaten the cookies'
        b. %... weil   sie die Kekse hätte nicht essen   sollen
              because she the cookies had not eaten should.IPP

[27] (47) are both double negations in Standard German. They are as such not impossible, but mean something else: (47a) means that she has read the book, (47b) that she definitely read every book, not, as intended, there is no time such that she hasn't read a book before that time. As said, this only holds in Standard German. Many German dialects have *Negative Concord* (NC), a phenomenon where the single sentential negation is spelt out on several elements in the clause, like agreement. In an NC dialect, (47b) would mean simple sentential negation. For an overview of the literature, cf. Zeijlstra (2004).

[28] Thanks to Henk van Riemsdijk (p.c.) for pointing these facts out to me.

(49)   a.   Sie hatte die Lösung schon   oft   gefunden, bevor der
                she had   the solution already often found   before the
                Lehrer die Frage   gestellt hat.
                teacher the question asked   has
                'She had already often (several times) found the solution, before
                the teacher asked the question'
    b.   Sie hatte die Lösung oft   schon   gefunden, bevor der
                she had   the solution often already found   before the
                Lehrer die Frage   gestellt hat.
                teacher the question asked   has
                'She had often found the solution already before the teacher asked
                the question'

Also, recall the modern Greek examples Alexiadou (1997) gives, cited above (example (38)). However, it is not clear if the adverb scope argument is really valid in determining if we are dealing with a mono- or a biclausal structure here.[29] There are good arguments for the view that adverb placement does not interact with 'normal' clausal positions in the usual way, although it has been argued that they occupy fixed positions along the clausal hierarchy, cf. e.g. Cinque (1999), Starke (2001). As shown by Åfarli (1996), assuming fixed syntactic positions for adverbs gives rise to positional paradoxes. He therefore argues that adverbs must be in a third dimension in addition to the two dimensions of the normal syntactic representation. This 'Z-axis' could basically be appended anywhere in the original tree. Nilsen (2003) goes even further by defending the claim that one can do without this third dimension by assuming that there are no fixed positions for adverbs. Adverbs are placed and ordered in syntax on the grounds of their semantic, in particular scope-related, requirements.

This still allows us to keep a monoclausal representation of constructions with auxiliaries. If adverbs can be interspersed with the normal positions in the tree, one could be attached higher than the auxiliary and one lower, without the auxiliary and the main verb necessarily being in two separate clausal projections. Furthermore, it seems to me that the scope of the adverbs in (49b) is really as follows:

(50)   often < [had found] ; already < [before the teacher ...]

That means that the linearisation of the adverbs in syntax obscures the actual scope facts.

Another problem with the adverb facts is that Julien wants to adhere to Cinque's (1999) theory of adverb placement. That would mean that in each of the two clauses, the full range of adverbial projections would be expected, which is clearly not what we find. In view of the considerations I just discussed,

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[29] As Kallulli (2004:14) points out, "any argument relying on adverbs as a diagnostic for structure is to be handled with care (and solicited suspicion)".

a biclausal approach to the analysis of complex tenses is problematic. I will therefore investigate in the next section whether a monoclausal approach is tenable.

1.5.1.2.2 A monoclausal approach

As already indicated in the last subsection, Erb (2001) proposes a monoclausal approach to auxiliary constructions, based on Van Riemsdijk's (1998) theory of tripartite extended projections, that is, a hierarchy of one lexical, and several semi-lexical and functional heads. This approach is not without problems either as we will see presently.

Van Riemsdijk's system was developed in order to account for the properties of what he calls 'direct partitive constructions' like (51), where N_1 functions as a modifier of the head noun (*cheese*). The N_1 elements (container, measure or partitive nouns) have a number of properties that set them apart from lexical nouns. Therefore, Van Riemsdijk argues that they are *semi-lexical* items, that is of a third category showing properties of both lexical and functional elements.

(51)   een plak kaas $Det - N_1 - N_2$
        a   slice cheese
        'a slice of cheese'

The core idea is that a maximal (extended) projection consists of exactly one lexical head heading it (endocentricity) and a number of semi-lexical/semi-functional and functional heads which are characterised by features:

(52)   a.   C(ategorial) features ($[\pm N]$, $[\pm V]$)
        b.   L(evel) features ($[\pm Proj]$, $[\pm Max]$) and
        c.   F(unctional) features ($[\pm functional]$, $[\pm grammatical]$)

The semi-lecical and functional heads are strictly ordered according to their feature specifications by the principle *No Value Reversal* in (53). It states that negative L- and F-feature values must not dominate positive values in the hierarchy.

(53)   No Value Reversal
        *$[-L/F] \gg [+L/F]$

This theory derives three functional domains with a hierarchical order imposed by (53):[30]

(54)   functional ($[+fct,+gram]$) $\gg$ semi-lexical ($[-fct,+gram]$) $\gg$ lexical ($[-fct,-gram]$)

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[30] Further details of Van Riemsdijk (1998) are not relevant here. The reader is encouraged to look them up in the original paper if necessary.

Erb (2001) aims at applying van Riemsdijk's system, developed for the nominal domain as mentioned above, to the verbal domain. In line with a side remark in Van Riemsdijk (1998), she argues that a certain class of verbs may be semi-lexical, some even functional.[31] Given that auxiliaries in German form a natural hierarchy by their syntactic properties, Erb is mapping them onto the tripartite structure of extended projections in the following way:[32]

(55)   future/*tun*/epist. modals $\gg$ (modals) $\gg$ perfect $\gg$ (modals) $\gg$
        functional domain   *semi-lexical domain*
        passive $\gg$ VP/modals
        lexical domain

A problem for Erb's adoption of van Riemsdijk's system is that in this theory, there can be only one specifier per extended projection, as only functional heads can take specifiers, a claim that clashes with the VP-Internal Subject Hypothesis by Koopman and Sportiche (1991). According to this now widely accepted hypothesis, subjects are generated in a specifier of (or adjoined to) VP. V however is the lexical head of the projection, not functional. A second problem is the fact that in Erb's view, passive auxiliaries are classified as 'lexical' heads, not functional or semi-functional as one would expect.

   Erb is resolving the two problems (a) by modifying van Riemsdijk's original definition of specifiers by removing the attribute 'functional' from it (now the definition is "entertains a feature checking relation with a ~~functional~~ head of M [the maximal projection, A.B.]") and (b) by stipulating that the head introducing the subject is really a lexical head. This head, she identifies as Kratzer's (1994) *voice*. In Kratzer's view, however, *voice* is a **functional** head assigning structural (accusative) case to the direct object and introducing the subject.[33]

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[31] Van Riemsdijk (1998:11;fn. 12) suggests that those verbs which trigger verb raising in Dutch may be of the semi-lexical type. This group of verbs comprises perfect and passive auxiliaries, modal verbs, causative *laten* 'let', ECM and raising verbs, and 'restructuring' verbs.

[32] Cf. Erb (2001:43). Pretty much the same hierarchy obtains in Dutch, cf. the *Algemene Nederlandse Spraakkunst* (ANS), which identifies seven classes of 'auxiliary' verbs, cf. Geerts (1984:603-609). The following is the table compiled out of the ANS by Rutten (1991:128).

VII epist.	VI modals + *te*	V tmp. aux.s	IV modal aux.s	III aspectual	II aux.s	I passive
kunnen	blijken	hebben	kunnen	blijven	liggen	worden
moeten	lijken	zijn	willen	gaan	zitten	
hoeven	schijnen		moeten	komen	hangen	
mogen			hoeven		staan	
zullen			mogen		lopen	
			durven			
			horen			
			dienen			
			weten			
			zullen			

[33] By this, Kratzer's *voice* takes care of Burzio's generalisation. As Erb points out as well, the functions of *voice* are very similar to those of the 'little'/light *v*-head in later

Erb justifies her analysis of *voice* as a lexical head by the fact that it affects the argument structure of the lexical predicate and has therefore to be viewed as a part thereof.

Despite these problems of the exact formal implementation of a monoclausal approach to auxiliary constructions, I think that Erb's proposal nicely captures some of the core properties of auxiliary constructions.

1. auxiliary constructions pass the monoclausality tests demonstrated in (43)-(48)
2. modal verbs in German do behave differently from full lexical verbs, but still have a more or less full inflectional paradigm (unlike English modals) and seem to function as modifiers of their complements
3. the verbs *tun* and *werden* plus infinitive seem to fulfill the criteria for (purely) functional heads – e.g., they can only be finite, that is, not in the complement of a 'semi-lexical' verb. In Erb's system, they are thus at the top of the extended verbal projection.

Nevertheless, I believe that it is not necessary to use van Riemsdijk's elaborate system of hierarchically ordered feature specifications to account for the properties of auxiliary constructions. Erb herself admits that "it is too detailed for 'daily usage'" (Erb 2001:40). I will therefore propose a monoclausal representation of functional clause structure that incorporates Erb's intuitions, but which is stated in a more mainstream generative framework.

1.5.1.2.3 A synthesis

We first have to ask the question what has to be captured by our structures. For our EMG data, we need a formal description of the following constructions:[34]

1. present and past perfect
2. *sein* and *werden* passives[35]
3. future/modal[36]
4. copulae
5. the modal passive construction *sein+zu*-infinitive and the modal construction *haben+zu*-infinitive

Let us proceed bottom-up, from the VP to the functional heads that need to be postulated and start with the complements of the auxiliaries. As is now

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Minimalism, cf. Chomsky (1995; 2001).

[34] See above for examples.

[35] The passive construction with *werden* is still under development in EMG, cf. section 2.4.2 below.

[36] At the time, *werden* is only emerging as future auxiliary, often, modal verbs like *sollen* or *wollen* are still used instead. There are furthermore still traces of the construction with *werden* in past tense with infinitive.

the common assumption, I take it that the first phase of a syntactic derivation is vP. Abstracting away from a further splitting of (the lexical) VP into more fine-grained projections pertaining to the derivation of inner aspect as proposed by Arsenijević (2003) or Ramchand (2004), I assume that v takes an otherwise unspecified VP complement, headed by the lexical verb V. With Chomsky (1995; 2001), I assume that v is a light verb head, which introduces the external argument and assigns accusative case to the direct object (cf. Kratzer's (1994) *voice*). In addition, unlike Chomsky (2001) and Kratzer (1994), I propose that v is *always* present, but specified for a voice feature [± active]. In my view, as in Kratzer's analysis, v is a functional head.[37] So, in an active transitive sentence, vP looks as in (56a), in a passive sentence as in (56b).[38]

(56)   a.
```
            vP
          /    \
        DP      v'
              /    \
            VP       v
          /   \    [+ACT]
        DP     V
```

b.
```
            vP
          /    \
       DP_i     v'
              /    \
            VP       v
          /   \    [−ACT]
        t_i    V
```
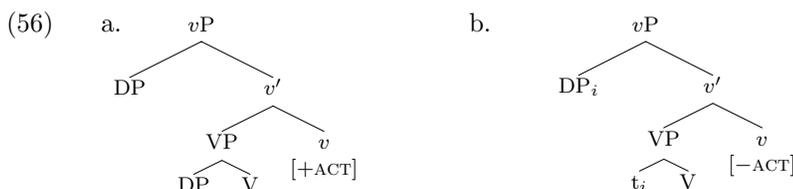
I assume that the passive participle is the result of spelling out the complex head v[−act]+V resulting from head movement of V into v.

Like Julien (2001), Demirdache and Uribe-Etxebarria (2000) and many others, I assume that in perfect tenses, there is an extra temporal head besides T, which we can call Asp here, following Demirdache and Uribe-Etxebarria (2000). The perfect participle is then the result of spelling out the sequence of heads Asp-v-V.

(57)
```
                  Asp
                /     \
             vP        Asp
           /    \
         DP      v'
              /     \
            VP        v
          /   \     [+ACT]
        DP     V
```

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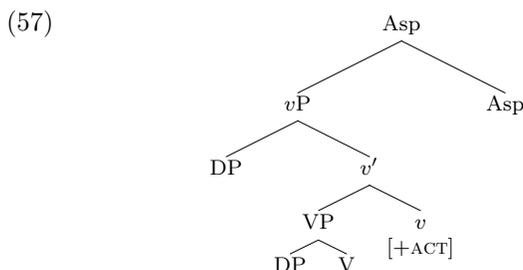
[37] Kratzer (1994) explicitly calls *voice* an *inflectional* element.

[38] I am using tree representations with the verbal and inflectional heads to the right of their complements. I am aware that they do not comply with Kayne's LCA (Kayne 1994). While it is not impossible to derive OV-orders as found in German with extensive use of remnant movement (for historical West Germanic, including German, cf. e.g. Biberauer and Roberts (2004)), I would like to abstain from taking this option because of (a) readability considerations, (b) the problematic issue of triggers for the many movement operations and (c) because a headedness-based approach is more intuitive and it can be shown, as e.g. in Ackema and Neeleman (2002), that a processing approach can elegantly eliminate the possible problems with non-antisymmetric structures.

It may be objected that the perfect and passive participles are formally extremely similar or even identical and that assuming two different positions for them is therefore not justified. Emonds (2000:ch. 5) claims in fact that both participles are derived by means of the uniformly adjectival morpheme he calls -*en*. Despite the similarities of the perfect tenses and the passives in the Germanic and Romance languages however, I propose to treat temporal-aspectual and voice-related constructions separately, motivated by a more universal crosslinguistic perspective. First, as Henk van Riemsdijk (p.c.) points out, adjectival and verbal passives behave differently w.r.t. Verb Raising in e.g. Dutch. Adjectival passives cannot undergo it, verbal passives can.[39]

(58) a. *De deur moet zijn gesloten.   *adjectival*
          the door must be   closed
          'The door must be closed'
      b. De deur moet worden   gesloten.   *verbal*
          the door must be(come) closed
          'The must be (being) closed'

Second, the Slavic languages – which Emonds does not seem to count among the "Indo-European" languages which according to him all have -*en* – for example distinguish between two participles, the *l*- and the *n*-participle, cf. e.g. Migdalski (2004; 2005) and the references cited therein. In many Slavic languages, the *l*-participle is used to form temporal constructions (past or perfect) and the *n*-participle is used for passives. As Migdalski (2004) shows, Macedonian and Kashubian are special in having developed a new perfect tense out of the construction *have*-auxiliary + *n*-participle. These forms are however fully grammaticalised temporal constructions now, with no relation to the historical passive meaning of the participle. Here, I am using the term 'fully grammaticalised' in the sense of Oubouzar (1974), as 'having developed a full paradigm'. That this is the case can be seen in Macedonian, where *n*-participles can also be formed from unaccusative verbs and the verb for 'be', which should not be passivisable.

Along the same lines, Swedish has two different – though formally very similar – participles, the non-agreeing *supine* which goes with the auxiliary *ha* 'have' and the *past (passive) participle* showing gender agreement, which takes the auxiliaries *vara* 'be' and *bli* 'become'.[40] The formal differences can also be taken as evidence calling for a differential treatment of perfect and passive participles despite same or similar historical roots.

Also, given my assumptions about phrase structure, where there is an Asp head for the temporal relation expressed by the past participle and a [−ACT] *v* head suppressing the external argument, it should be clear that the different

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[39] (58a) is grammatical under the reading *must have been closed*, that is, perfect of verbal passive, which in Dutch appears without the participle of the passive auxiliary *worden*, *(ge)worden*. More on this in footnote 20 in section 2.4.2.

[40] For extensive discussion, cf. e.g. Hedlund (1992:ch. 6.1)

participles spell out different syntactic features. That they are formally similar should be considered an artifact of their historical development; in the modern grammar, they spell out different feature bundles.[41] A last argument comes from the emergence of perfects of passives with the grammaticalisation – in Oubouzar's (1974) sense establishment of a full paradigm – of the perfect in German. If we are to avoid a biclausal analysis of the relevant periphrastic constructions (at least for German), as argued for above, the natural consequence is assuming that the perfect and the past participles originate in different projections.

In the case of the modal passive *sein+zu*-infinitive, I am proposing that there is a functional head Mod on top of vP. It has to be a low modal head because it has no epistemic interpretation.[42] The v head in this construction is [−ACT], (59a). The obligational construction *haben+zu*-infinitive is very similar to the modal passive, with the only difference that v is specified for [+ACT], (59b).

(59)   a.   b.
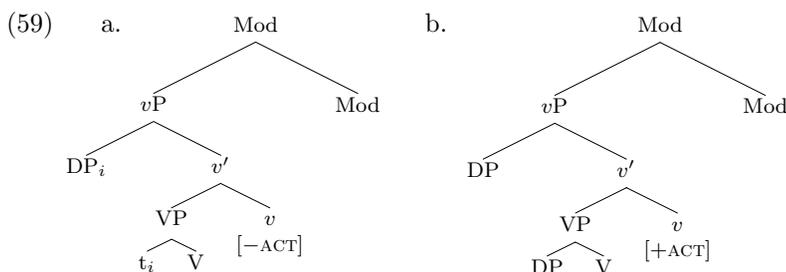
The next step "up" in our bottom-up examination of the syntax of periphrastic constructions is determining the choice of auxiliaries.

Following Demirdache and Uribe-Etxebarria (2000), I assume the Asp head in perfect tenses to be selected by a T head (tense). This is the same head that by common assumptions also licenses nominative case on the subject and agrees with the subject in φ-features (person and number). In past perfect, T is specified as [+PAST], in present perfect, as [−PAST]. The latter can then be interpreted in the way described by Grewendorf (1995), giving rise to the various uses the German *Perfekt* can have.[43]

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[41] In fact, the historical development of the Macedonian and Kashubian *have*-perfects discussed by Migdalski (2004) is very similar to the development of the *Perfekt* in German, which according to Behaghel (1928) developed out of a stative passive construction: *Ich habe es gefunden* 'I have found it' ≪ *Ich habe es als gefundenes* 'I have/own it as a found thing'; cf. Behaghel (1928:271f).

[42] Cf. e.g. Erb's (2001) discussion of modal verbs and their position in a hierarchy of (semi-)functional heads, quoted in (55) above.

[43] According to Grewendorf, the German present tense can express simultaneity, but is basically variable w.r.t. the topic time and therefore has to be disambiguated by contextual (conversational?) implicatures. The present tense of the auxiliary then causes the variability of German Perfekt uses. About the flexibility of *Präsens* interpretations cf. also (40) above.

In order to illustrate these assumptions, consider the analysis of the following example of a *Perfekt* with *haben*:

(60)   Allhie   **haben** wir trǔbselige Feyertag gehabt
       all.here have   we sad   holidays had
       'Over here, we (have) had sad holidays'

(Aviso (1609; 1/2,5))

(61)
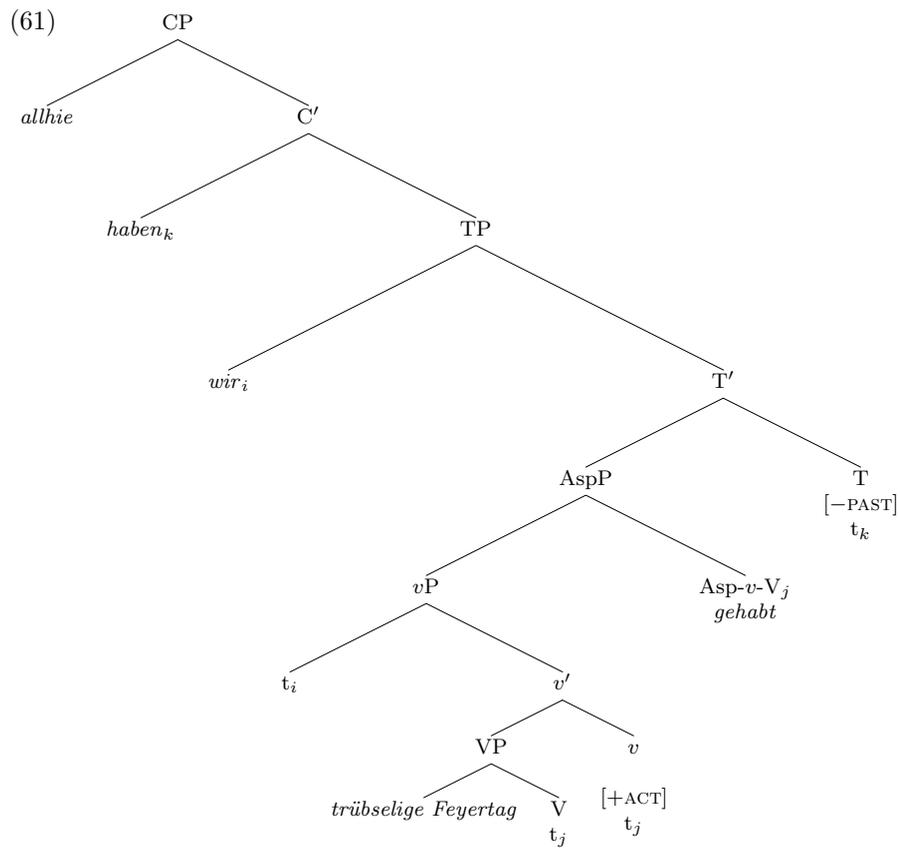
I am assuming a version of Emonds' (2000) approach to auxiliaries, according to which they instantiate only formal features which play no role at LF. Therefore, they are inserted/lexicalised post-syntactically, at PF (62). Furthermore, T (can) Alternatively Realise the φ-features of the subject (63).[44]

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[44] The following two definitions are taken from Emonds (2000), (4.21) and (4.20), respectively. "Contextual" features are features with no role at LF; "Lack of content" features are marked values of syntactic features like -PROPERTY on A (canonically +PROPERTY) or −LOCATION on P.

(62) **PF Lexicalisation**
      Items specified solely in terms of purely syntactic, uninterpreted fea-
      tures F (contextual, alternatively realised, and "lack of content" fea-
      tures) are inserted subsequent to any operation contributing to logical
      form.

(63) **Alternative Realisation (AR)**
      A syntactic feature F canonically associated in UG with category B
      can be alternatively realised in a closed class grammatical morpheme
      under $X°$, provided $X°$ is the lexical head of a sister of B.

As for auxiliary selection, I assume that it proceeds in a bottom-up fashion.
Depending on the (lexical) main verb, T would be spelt out as either *haben*
or *sein*.[45] That such an approach is quite attractive can be seen from French,
where the usual correlation of auxiliary selection and the unaccusativity of the
main verb does not hold in a one-to-one fashion. Besides unaccusatives, also
pure motion verbs and reflexives select *être* in French.

Turning now to the passive constructions, I propose that here as well, the fi-
nite auxiliary is inserted in T. Depending on whether v is specified as [+PROG]
(*progressive*) or not, it is spelt out as *sein* (stative passive) or *werden* (dynamic
or progressive passive). In the latter case, v's [+PROG] feature is AR'ed on the
head of vP's sister, here T.

The following examples illustrate these assumptions, (64) and (65) for the *sein*-
passive and (66) and (67) for the *werden*-passive .

(64) daß niemand meine   die Predigermünch **syend**   allein so
      *that noone   think.*SUBJN *the preacher.monks are.*SUBJN *allone so*
      verrücht gsyn
      wicked   been
      'so that noone can think that only the preacher monks have been so
      wicked'

                                                        (Lavater (1578; 29^v, 21-23))

---

[45] For a language like Dutch, it would be additionally possible to assume the presence or
      absence of some directionality feature with motion verbs influencing the spell out of T as
      either *hebben* or *zijn*.

(i)   a.   Ik ben gelopen.
               I am walked
               'I walked [+directional]'
          b.   Ik heb gelopen.
               I have walked
               'I walked [−directional]/ I was walking around'

(65)

$$
\begin{array}{c}
\text{CP} \\
\diagup \quad \diagdown \\
\textit{die Predigermünch}_i \qquad \text{C}' \\
\diagup \quad \diagdown \\
\text{C} \qquad\qquad \text{TP} \\
\textit{syend}_j \\
\diagup \quad \diagdown \\
\text{t}_i \qquad\qquad \text{T}' \\
\diagup \quad \diagdown \\
v\text{P} \qquad \text{T} \\
\qquad \text{t}_j \\
\diagup \quad \diagdown \\
\text{SC} \qquad v \\
\qquad [-\textsc{act}] \\
\diagup \diagdown \quad [-\textsc{prog}] \\
\text{t}_i \quad verrücht^o \quad gsyn
\end{array}
$$
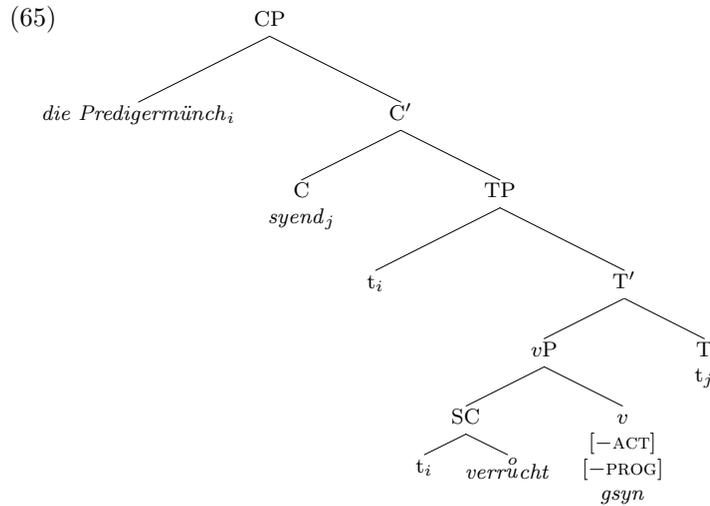
(66)   Hie **werden** die gelubt aufgehebet
        here become   the vows   abolished
        'Here, the vows are abolished'

                                                    (Luther (1520; Eij^a,7-8))

(67)

$$
\begin{array}{c}
\text{CP} \\
\diagup \quad \diagdown \\
\textit{Hie} \qquad \text{C}' \\
\diagup \quad \diagdown \\
\textit{werden}_j \qquad \text{TP} \\
\diagup \quad \diagdown \\
\textit{die gelubt}_i \qquad \text{T}' \\
\diagup \quad \diagdown \\
v\text{P} \qquad \text{T} \\
\qquad \text{t}_j \\
\diagup \quad \diagdown \\
\text{VP} \qquad v \\
\diagup \diagdown \qquad [-\textsc{act}] \\
\text{t}_i \quad \text{V} \qquad [+\textsc{prog}] \\
\qquad\qquad \textit{aufgehebet}
\end{array}
$$
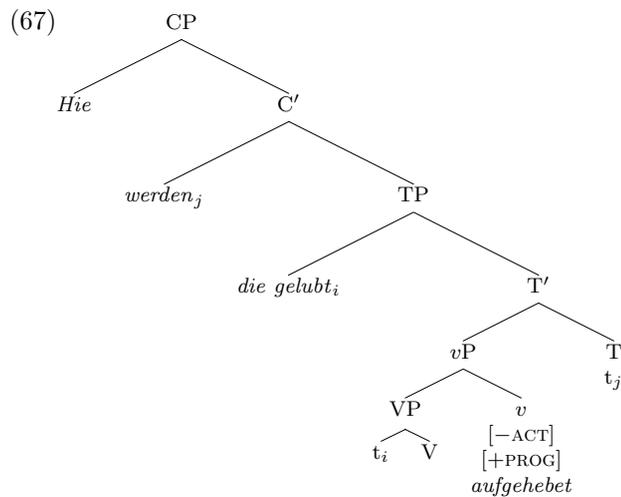
In the perfect of a passive construction, the sister of vP is AspP, as in any perfect, see (61). So, the feature [+\textsc{prog}] is AR'ed on Asp. Because Asp has its own features as well, the passive auxiliary gets spelt out as past participle, that is, *worden* in case of *werden* and *gewesen* in case of *sein*.

(68)

```
                            TP
                 ┌──────────┴──────────┐
               DP_i                    T′
                           ┌───────────┴──────┐
                         AspP                  T
                    ┌─────┴─────┐             ist
                   vP          Asp
               ┌────┴───┐   worden/gewesen
              VP        v
            ┌──┴─┐   [−ACT]
           t_i   V   [±PROG]
                    pass.ptc.
```
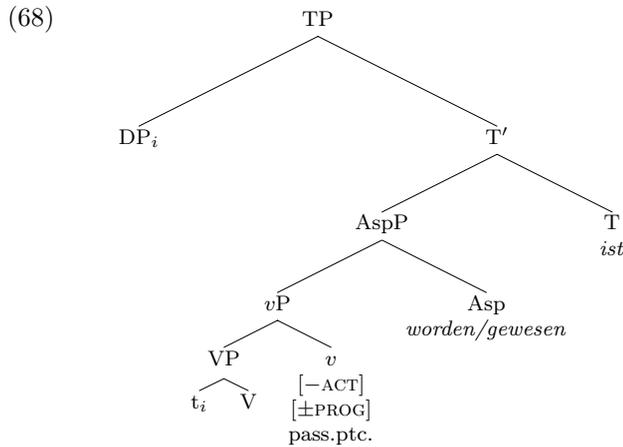
The following illustrates these assumptions for the perfect of a *werden*-passive.

(69)   do   von ich selber [...] gespeißt worden **bin**.
        there of   I   myself   fed   become am
        'with which I myself have been fed'

(Springer (1509; A2a,40-42))

(70)

```
                        CP
              ┌─────────┴─────────┐
              C                   TP
           do von      ┌──────────┴──────────┐
                   ich selber_i               T′
                                   ┌──────────┴─────┐
                                 AspP               T
                            ┌─────┴─────┐          bin
                           vP          Asp
                       ┌────┴───┐     worden
                      VP        v
                    ┌──┴─┐   gespeißt
                   t_i   V
```
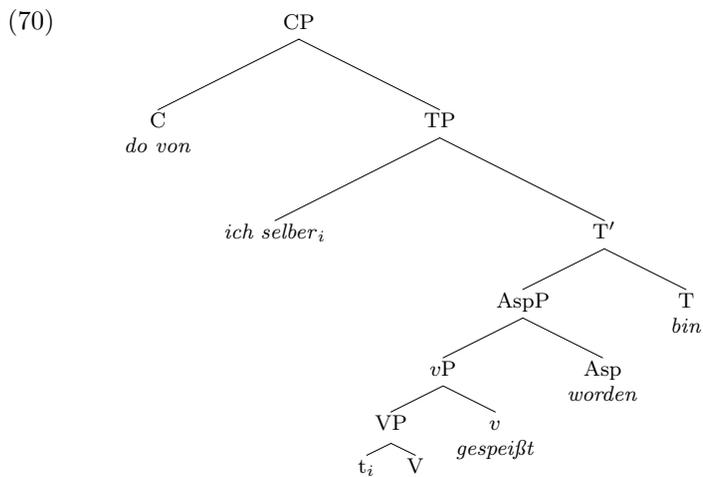
Let us now turn to the auxiliary selection in the modal constructions with *zu*-infinitive. I argued above that they have basically the same structure in the non-finite part, a sequence of the three heads V-*v*-Mod. The main difference between the construction with *sein* and the construction with *haben* is the specification of feature [±ACT] on *v*. I am arguing here that this feature, which cannot be spelt out on the *zu*-infinitive, is AR'ed on the head of the sister of

ModP, T in case of a finite clause. [−ACT] results in the PF Lexicalisation of *sein*, [+ACT] in the realisation of *haben*.[46]

(71) der **war** [...] zart   am   fleisch vnd guot zůessen
      that was   tender in.the meat   and gut   to.eat
      'That one was tender in its meat and well edible [about a fish]'

<div align="right">(Rauwolf (1582; 16,24-27))</div>

(72)
```
                    CP
               /         \
           der_i          C'
                      /        \
                    C           TP
                  war_j      /       \
                          t_i          T'
                                   /        \
                               ModP          T
                              /      \       t_j
                            vP        Mod
                          /    \    zůessen_j
                        VP      v
                       /  \   [−ACT]
                     t_i   V   t_j
                          t_j
```
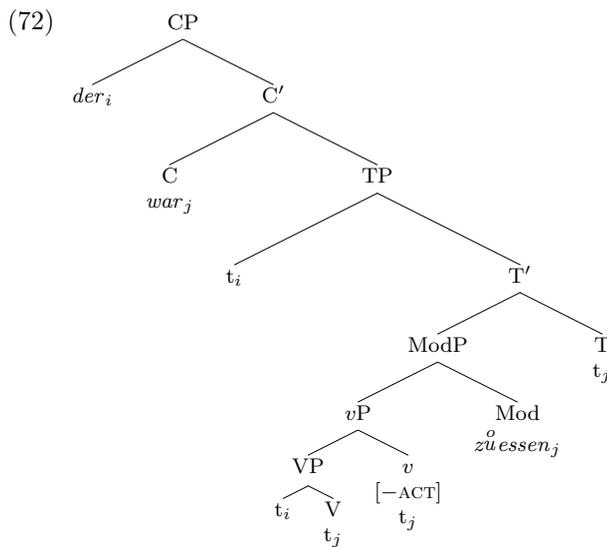
(73) ob wir schon   daselbsten nit kleine gefahr zugewarten hetten/ von
      if we already there.self   not small danger to.expect   had   of
      wegen   der   wehrenden Krieg ...
      because the.GEN ongoing   wars
      'even though we had to expect considerable (lit. no small) danger be-
      cause of the ongoing wars ...'

<div align="right">(Rauwolf (1582; 14,01-02))</div>

---

[46] The reason for – not quite correctly – putting both *ob* and *schon* under C in (74) is that they develop a combined meaning ('even though') in EMG. Even quite late in the period, pronouns can intervene between them. We will discuss this in more detail in section 3.3.3.

(74)

```
                              CP
                      ┌───────┴────────┐
                      C                TP
                  ob..schon     ┌──────┴──────────┐
                              wir_i               T'
                                           ┌──────┴──────┐
                                         ModP            T
                                   ┌──────┴──────┐     hetten
                                  vP            Mod
                              ┌───┴───┐     zugewarten_j
                             t_i      v'
                                  ┌───┴───┐
                                 VP       v
                              ┌──┴──┐   [+ACT]
                             DP    V     t_j
                                  t_j
```
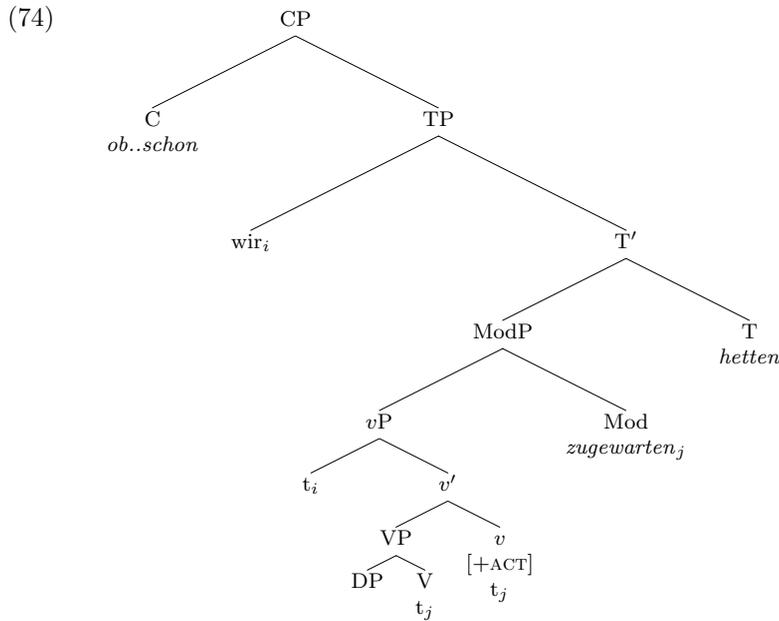
A last problem is the syntax of sentences with a copula, as also the copula can be dropped/occur in the afinite construction in EMG. Following common assumptions, I take it that instead of a VP/vP, there is a small clause SC in copular constructions.[47]

(75)   Wiewohl ich zu gering **bin** ...
         although I   too humble am
         'Although I am too humble ...'

<div align="right">(Luther (1520; 45,15-16))</div>

(76)

```
                  CP
          ┌───────┴───────┐
          C               TP
      Wiewohl      ┌──────┴──────┐
                 ich_i           T'
                            ┌─────┴─────┐
                           SC           T
                       ┌───┴───┐       bin
                      t_i   zu gering
```

---
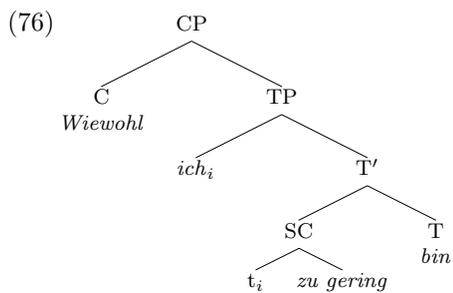
[47] Cf. already example (64) above. Any further discussion of the finer structure of SCs as in Starke (1995) as well as a distinction between different types of SCs as in Heycock and Kroch (1998) is not necessary for my purposes here as I am concerned with the representation of the finite auxiliaries.

As in the other constructions, I assume that the finite auxiliary is PF-inserted in T. In copular constructions, the copula *sein* 'be' makes no semantic contribution at all. Therefore, we can assume that it just ARs the φ-features of the subject on T. If the construction appears in the *Perfekt* or some other tense, the same mechanisms as described above apply.

1.5.1.3 Summary

This section proposed structural representations for EMG auxiliary constructions. The following assumptions were made.

1. Auxiliaries are PF-lexicalised feature bundles.
2. As purely grammatical morphemes, they can Alternatively Realise features of the head of their sister, like the φ-features of the subject DP.
3. The finite auxiliary is spelt out in T. It can potentially AR [±PROG] in passives (giving rise to spell-out as either *sein* or *werden*) or [±ACT] in the modal constructions with *zu*-infinitive (giving rise to spell-out as either *sein* or *haben*).
4. The perfect participle is in Asp.
5. *v* combines properties of Chomsky's *v* and Kratzer's *voice*. I assume that it is always inserted, also in passives, and that has a binary feature [±ACT].

In the next subsection, I will turn to the theoretical assumptions concerning variation between languages and by extension, historical stages of one language.

1.5.2. Parametric variation – synchronic and diachronic

An important axiom/assumption of the P&P framework is that all human languages are guided by the same basic *principles* limiting the possible variation. The set of these principles is called Universal Grammar (UG). The differences between languages (or varieties of one language) result from differential settings of *parameters* in a language. A parameter is a variable property of a language, like headedness for example: in some languages, heads like verbs and prepositions take their complements to the left, in others, to the right. The following example, taken from Haegeman (1994:95), demonstrates this for Japanese (complement-head) and English (head-complement).

(77)   a.   John-ga   Mary-to   kuruma-de Kobe-ni it-ta.
            John.NOM *Mary.with car.by   Kobe.to go*.PAST
       b.   John went with Mary by car to Kobe.

There are different positions concerning the parametric variation of languages. One position is the one promoted by e.g. Fukui and Speas (1986) and Abraham (1993), according to whom languages differ in how many functional categories they have. One of the proponents of the opposite position, that languages do

not vary in the number of functional categories, is Ouhalla (1991). Parametric differences between languages in this framework can be identified as differential properties of functional heads. According to Ouhalla, functional heads can differ in three ways: (i) in their categorial selectional properties, that is, if a head selects e.g. an NP or a DP, (ii) morphological selectional properties, that is, the selectional properties of affixes (e.g. *-able* is looking for a V to combine with) and (iii) in their grammatical features, that is, Number, Person, Tense, *wh*, [±N] and [±V]. A different view within the invariable number of functional categories framework is the one taken by Chomsky (1995; 2001). In Chomsky (1995), the differences between functional heads consist in the differential strength of their features. This idea goes back to Pollock's 1989 often-quoted examples illustrating the difference in (main) verb movement to I in French and English, French having and English lacking it. In the Minimalist Program, this difference is explained by assuming that the V-features of Agr are weak in English, not able to overtly (before Spell-Out) attract the verb, and strong in French.

(78)   a.   Jean embrasse souvent Marie.
          b.   *Jean souvent embrasse Marie.

(79)   a.   *John kisses often Mary.
          b.   John often kisses Mary.

The assumption of parametric variation between languages as different selections from a set of functional categories for each language potentially poses a problem for the UG-hypothesis. The selection itself would have to be restricted somehow, e.g. which functional categories a language has to have minimally. As for the difference between functional features in terms of strength, the concept of feature strength has been replaced in newer versions of the theory (Chomsky 2001) by the presence or absence of an 'occurrence' or 'EPP' feature in a functional head which besides agreement linking two categories ('probe' and 'goal' of the agreement relation) also triggers overt displacement of the 'goal'. This is more in line with Ouhalla (1991). Feature strength was especially used to explain word order differences between languages. However, since not all cross-linguistic variation is restricted to such differences, I will adopt Ouhalla's concept of varying properties of functional heads for the purposes of this thesis.

As for the question of how parameters are set, the general assumption is that it takes place in language acquisition on the basis of linguistic input by the environment. The problem of what requirements this linguistic input has to fulfill in order to trigger the correct setting of a parameter is convincingly solved in Fodor's (1998) acquisition model where bits of syntactic structure (partial parses, treelets) function as unambiguous cues to parameter setting. Once identified, these parses are integrated into the grammar being acquired. The learner can always parse input with what Fodor calls the *supergrammar*, containing all possible (by UG) treelets, but if an input structure unambiguously

calls for parsing with one parameter value (that is, specific a parse/structure), the respective parameter is set and will be used for further parsing to the exclusion of the other setting(s) provided by the supergrammar. One by one, the parameters of the target language will be unambiguously identified. The cue-based learning argued for by Lightfoot (1999) also understands cues as bits of syntactic structure.

Turning now to the problem of language change, two historical stages of a language can be interpreted as two varieties of a language just as synchronic dialects are. Therefore, their parametric variation is no different from synchronic variation between languages or dialects. This is furthermore supported by the *General Uniformity Principle*, (80), and its application to linguistics, (81):

(80)   **General Uniformity Principle**
        Nothing that is now impossible *in principle* was ever the case in the past.

Lass (1997:26)

(81)   No linguistic state of affairs (structures, inventory, process etc.) can have been the case only in the past.

Lass (1997:28)

This means that the same principles (UG) restricting synchronic parametric variation also govern the variation in the historic dimension. Language change is therefore the change of parameter settings over time. As parameters are set during language acquisition, the locus of syntactic change must be language acquisition as well, understood as a resetting of parameters. This is the basis of any Generative model of syntactic change, beginning with Lightfoot (1979).[48]

Much research is concerned with the 'learnability paradox', the fact that children are able to acquire the grammar of their parent's language from very limited input. It is assumed that this paradox is solved because children are genetically endowed with a universal capacity to develop human language (UG) (the 'poverty of stimulus' argument) and language acquisition is setting of parameters on the basis of *triggering experiences*. To give an example, it is generally assumed that the verb-second (V2) property of a language is due to a V2-parameter. A triggering experience for a language learning child would be a sufficient number of sentences with a non-subject constituent in front of the finite verb.

Thus assuming that language acquisition is no paradox any longer because the innateness of UG allows 'perfect' language acquisition despite the poverty of stimulus, the fact that languages *change* then poses another paradox: if children are able to attain their parent's grammars perfectly, how can language ever change (Niyogi and Berwick 1997)? According to Lightfoot (1979; 1991),

---

[48] "A grammar is not an object floating smoothly through time and space, but a contingent object that arises afresh in each individual"; Lightfoot (1991:172).

changes can occur because there can be a certain amount of (synchronic) variation in a language within the limits of its parameter setting. As the learner *abduces* the grammar of the target language from the 'primary linguistic data' (restricted by the principles of UG) her hypothesis can be different from the target grammar, as several hypotheses might be compatible with the input data the learner is confronted with. The acquisition process has to be abductive instead of inductive because of this non-deterministic nature of the linguistic input.[49]

In chapter 3, I will discuss the arguments for the different approaches to language change in more detail and with relation to the EMG data. The background assumption adopted in this thesis is that the way syntactic changes are normally brought about is the abduction of new parameter settings during language acquisition.

1.5.3. Summary of the theoretical assumptions

Let us sum up the theoretical assumptions presented so far. I am assuming that

1. auxiliaries are different from full verbs in that they are closed-class, functional elements
2. auxiliaries are the spell-out of (the features of) functional heads
3. periphrastic constructions are monoclausal
4. parametric variation between (historical stages of) languages lie in the differential properties of functional heads
5. historical parametric variation is a consequence of reanalysis of parameter settings during language acquisition made possible by the non-deterministic relationship between speaker-internal grammars and their output which forms the input to the language learner

1.6. Research questions

Given the empirical facts and the theoretical assumptions just presented, a number of questions arise.

First, auxiliaries are more or less grammatical/functional elements (Erb 2001) expressing functional information like tense, aspect, voice, and the like in periphrastic constructions. If they can be dropped, one has to wonder how this functional information is recovered. The licensing issue entails the question what the structural representation of this functional information looks like.

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[49] " 'Abduction' is the process of adopting an explanatory hypothesis (...) and covers two operations: the selection and the formation of plausible hypotheses. As process of finding premisses, it is the basis of interpretive reconstruction of causes and intentions, as well as of inventive construction of theories." Uwe Wirth, `http://www.rz.uni-frankfurt.de/~wirth/inferenc.htm`.

Because this thesis focusses on the ellipsis of *finite* auxiliaries, we will have to explore the nature of finiteness and discuss its syntax and semantics, as an understanding of these seems crucial for an understanding of EMG auxiliary ellipses. This thesis will propose a formal account of the licensing conditions.

Second, clearly, the topic of this thesis is in the field of diachronic syntax. Therefore, questions of language change, that is, the historical development of the construction(s) in question, will have to be addressed. The way in which the auxiliary ellipses of historical German evolve in the course of time is a most interesting one. The phenomenon emerges in the late 15th century, becomes very frequent around 1600, but disappears again with most auxiliaries after 1700. Only the ellipsis of perfect auxiliaries remains possible for a little longer, but much less frequently so than before. While many publications are concerned with syntactic changes that go to completion after their actuation[50], little research has been done so far on changes which do not. This thesis discusses one such case.

Third, while the ellipsis of finite auxiliaries becomes very frequent at some point, it never seems to take over completely. Although it is possible to give a formal account of its licensing conditions, it remains a curious fact that the afinite construction disappears again after it had become very successful within a small number of generations. This optionality, even at a stage of almost complete take-over in embedded clauses, together with the possibility of non-parallel coordination ellipsis in main (and embedded) clauses, will lead us to add a more functionalist perspective complementing the formal licensing account. It will be shown that the ellipsis of finite auxiliaries developed at some point into a formal mark of subordination.

Fourth, given the assumption of a Universal Grammar (UG), we have to wonder whether the arguments presented for the licensing and occurrence restrictions on the ellipsis of finite auxiliaries in EMG extend to other languages as well. It would be expected that under similar conditions, a language would show similar properties. Therefore, we will look briefly at Swedish, where similar phenomena as in EMG seem to occur, and discuss a more cross-linguistic view on the relation of finiteness (marking), subordination, and auxiliary ellipsis.

1.7. Overview

Chapter 2 reviews the literature on the topic to this day. There are different positions about the reasons for the emergence of the afinite construction, its status and its disappearance as well as the relation between auxiliary drop in and outside coordinations. Chapter 3 provides a quantitative discussion of the development of the afinite construction in time, its emergence, spread and fall, and modell it theoretically. As indicated in section 1.3, an elliptic element has

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[50] Term by Weinreich et al. (1968).

to be recoverable in order to be identifiable as elliptic. The conditions which have to be fulfilled for the ellipsis of a finite auxiliary to be licensed are the topic of chapter 4. There are two appendices, one containing the EMG source texts used and one presenting the numerical results of the corpus analysis.

The state of the art

2.1. Introduction

This chapter will discuss earlier approaches to EMG auxiliary drop, to its emergence, characteristics, and disappearance. A number of partly descriptive, partly more formal publications are concerned with the phenomenon, all reaching similar conclusions about the reasons for the emergence and spread of the constructions lacking a finite auxiliary. There has been little speculation about its disappearance, perhaps because the afinite construction has long been considered to be still possible in archaic poetic style in the present day language.[1]

After a brief look at the perception of the phenomenon by the contemporary (EMG and older Modern German) grammarians, I will discuss the different proposals and evaluate their plausibility.

2.2. The view of the contemporary grammarians

It took some time until grammarians took notice of the afinite construction. Ickelsamer (1534) neither uses it a lot nor does he mention it. Schottel (1663) is one of the first grammarians to mention it in his "Ausführliche Arbeit von der Teutschen Haubtsprache", p.744:

(1)   "Die Hülfswörter / so zu einiger vergangenen Zeit gehören / werden in Teutscher Sprache zum oftern ausgelassen / und

---

[1] Cf. Thiel (1971), Den Besten (1977). However, the use of the afinite construction after 1700 affects only perfect auxiliaries, with very few exceptions. The extensive drop of other auxiliaries disappears in older Modern German. Furthermore, outside its use in poetry and a short revival in the *Sturm und Drang* period (which Härd (1981:127) calls a "Rückzugsgefecht" ('rearguard action')), the auxiliary drop cannot be said to be a productive rule of the grammar anymore.

> unter dem Zeitworte gar wol verstanden. (Doch muß hierin
> geb$\overset{e}{u}$hrende masse gehalten / damit die Redarten nicht un-
> deutlich werden)"[2]

It seems that over time the construction becomes stylistically restricted:

(2)   "Außer diesem Falle können die Hülfswörter *haben* und *sein*,
wenn sie hinten stehen sollten, und die Deutlichkeit nicht zu
sehr leidet, in der höhern und dichterischen Schreibart, um
der kernvollen Kürze willen weggelassen werden. [...] Das
Hülfswort *werden* kann niemahls verschwiegen werden "[3]

<div align="right">Adelung (1781:451)</div>

Gottsched does use it but also advocates a moderate use of the afinite construction:

(3)   "Man lasse auch die Wörter *bin seyn* und *haben*, imgleichen,
das *ich, du, er*, und dergl. nicht aus: denn das machet oft
eine große Dunkelheit"[4]

<div align="right">Gottsched (1759:249)</div>

(4)   "Ferner giebt es eine Dunckelheit, wenn man die H$\overset{e}{u}$lfs= und
Schlußw$\overset{e}{o}$rter ausl$\overset{e}{a}$st."[5]

<div align="right">Gottsched (1736:299)</div>

As he himself is dropping the perfect auxiliaries, Gottsched seems to be talking here about the omission of *sein* as copula or in combination with *zu*+infinitive, judging from the examples he gives (Gottsched 1736:299):

(5)   [...] in der Kirche der   Capuciner (die   zur   rechten Hand [_],
        in the church of.the Capuchins which at.the right   hand [is]
    wenn man aus   dem Thor gehet,)
    when one out.of the gate goes
    'in the church of the Capuchins, which is to the right when you leave
    through the gate'

---

[2] 'The auxiliaries belonging to some past tenses are often dropped in the German language and are still well understood as belonging to the (main) verb. This is however to be used with moderation such that the style does not become obscure'.

[3] 'Besides this case, the auxiliaries *have* and *be* can be omitted in higher and poetic style if they would appear sentence-finally and as long as the clarity does not suffer. The auxiliary *be(come)* can never be omitted'.

[4] 'It is advised not to omit the words *am*, *be* and *have*, as well as *I, you, he*: this often creates a great obscurity'.

[5] 'Furthermore, the omission of the auxiliary and (sentence-) final words creates a great obscurity.'

(6)   [...] wegen   der messingenen sehr grossen Statuen, [...] dergleichen
            because.of the brass   very large   statue   suchlike
        nicht in Europa anzutreffen [_]
        not   in Europe to.be.found [is]
        'because of the very large brass statue, to which nothing comparable
        can be found in Europe'

According to Grimm, the uncoordinated afinite construction, which was a later
development (unknown in "the older language"), did not survive. Only ellip-
sis under identity in coordinations is allowed, barring 'non-parallel' auxiliary
ellipses in coordinations:

(7)   "Sollen aber verba verbunden werden, denen verschiednes aux-
            iliare gebührt, so ist sie [die ellipse] unstatthaft. [...] Außer
            diesem fall erlaubt die ältere sprache nie den wegfall, auch im
            relativsatze nicht. [...] Nhd. aber ist [...] hergebracht, das
            dem part. unmittelbar folgende (niemals das vorausgehende)
            habe oder bin manchmal zu unterdrücken, vorzüglich in in-
            directer, relativer rede [...]. Gleichwol hat diese ellipse nicht
            durchdringen können, und wird heute mehr gemieden als ge-
            braucht"[6]

                                                                Grimm (1898:202f)

The quotes show that since the middle of the 17th century (the end of the EMG
period), grammarians and stylists have always been aware that the omission of
the finite auxiliary exists, that it is used frequently, but that it is a potential
risk for the interpretability. Still, a decline in acceptability can be discerned.
While Schottel just states the frequent use of the ellipsis, the stylists of the
18th century formulate stronger restrictions and warn that the use may lead to
comprehension problems.

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[6] 'If verbs which take different auxiliaries are coordinated, the ellipsis is not allowed. Next
to this case, the older language never allows ellipsis, even not in relative clauses. However,
in Modern German it has become tradition to sometimes omit the auxiliary *have* or *am* if
it immediately follows the participle, but never when it precedes it; especially in reported
speech or relative clauses. Nevertheless, this ellipsis has not caught on and is nowadays
more avoided than used'.

2.3. Latin influence and chancery style

> *Der Reichs- und Kanzelley-Styl ist voll solcher dunkeler Sätze, in*
> *welchen man oft den Atem verlieret, ehe man an das Bestimmungswort*
> *des Verbi gelanget.*[7]   Adelung (1782:529)

Biener (1925) und Admoni (1967) note that the afinite construction first emerges
in chancery style and Stammler (1954:29) argues that the omission of the finite
auxiliary is a 'chancery rule'. 'Chancery style' is the term for the document
style(s) used by scribes working in chanceries, that is, writing offices of cities,
clerical and secular governors (bishops, counts, the emperor). It is referred to
as a special style because it is marked/characterised by special features like a
high degree of formality, functional and nominal style. In order to make the
e.g. legal or business documents understandable across narrow regional dialect
boundaries, the language used in chancery documents often shows early stan-
dardisation trends, like levelling of phonological differences between dialects
(Hartweg and Wegera 1989). For lack of a national standard language, chancery
style was often considered a paradigm for good language use in the early times
of German writing. Especially the chancery of the emperor had a high esteem
and therefore standardising power. Opitz in his *Poeterey* (1624) calls the lan-
guage of the chanceries and other writing offices "die rechte lehrerinn der reinen
Sprache".[8]

In the older linguistic literature, it has often been claimed that chancery
style was directly influenced by Latin grammar because the language for legal
documents used to be Latin until the end of the 13th century and there were
old rules for what e.g. a letter had to look like. Habermann (2001), however,
demonstrates that even in a formally highly restricted style such as the one of
the legal and business documents, the influence of Latin was at best indirect,
and that all changes were already laid out in the German system, though
perhaps fostered by the Latin pattern. She concludes:

(8)   "Die Veränderungen im Satzbau seit dem Spätmittelalter gehen
            mit Entwicklungstendenzen konform, die von Anfang an in der
            Struktur des Deutschen angelegt sind."[9]

                                                    Habermann (2001:34)

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[7] 'The Empire- and chancery style is full of such obscure sentences, in which one often loses
one's breath before one reaches the determining word of the verb'.

[8] 'The right teacher of the pure language'.

[9] 'The changes in the sentence structure since the late middle ages conform to developmental
tendencies that have been present in the structure of German from the beginning'. Härd
(1981:22) comes to a similar conclusion w.r.t. the development of the verb placement in
main and embedded clauses in the history of German, which will play a certain role in
this thesis; see chapter 3.

Indeed, under Latin influence, syntactic changes like the extension and refinement of the means to express clausal embedding took place.[10] But these changes often make use of German-internal means like the sentence-final verb placement – an option that has always been possible and now becomes restricted to certain clause types (marking embedded clauses). So, while it is certainly possible that the afinite construction emerges first in chancery style, it is less likely to be the direct copy of a Latin pattern. It has furthermore never been clear exactly which Latin constructions the proponents of this theory had in mind.

Behaghel (1928:491) notes that some scholars whom he does not mention have assumed that this construction without auxiliary has its origin in the *Latin* chancery language use of the 14th century, but that he himself cannot think of which construction these scholars had in mind. There are some participial constructions which did influence an increase in use of similar participial constructions in German at the time: example (9), for example, is shaped after the model of the Latin *participium coniunctum*, (10a). Another participial construction replacing finite clauses is the *ablativus absolutus*, (10b). Such constructions are used as more economical and elegant alternatives to finite clauses. But here again, as Habermann (2001:26) notes, these possibilities have been present in the language all the time and are just activated and extended under the influence of the Latin example.

(9) daz jch ye versůchen wollt / etlich costlich zierlich vnd
     that I PRT *try*   *would   some delectable graceful and*
     verrümpte latinisch gedichte **von den gelertesten mannen vnser**
     famous   Latin   poems   by   the   most.learned men   of.our
     zyten in diser kunste / gemachet in tütseh   [!e] zebringen
     time   in this   art   made   in German   to.bring
     'that I would try to translate into German some of delectable, graceful
     and famous Latin poems, made by the most learned (in this art) men
     of our time'

                                                         (von Wyle (1478; 9,19-22))

(10)   a. Oppidum [ab hostibus   deletum] denuo aedificatum est.
           the.city   by the.enemies destroyed anew built   is
           e.g.: 'The city, after it/which was destroyed by the enemies, was
           rebuilt'
       b. [Oppido ab hostibus   deleto] incolae   in summa
           the.city by the.enemies destroyed the.inhabitants in highest
           miseria vivebant
           misery lived

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[10] As the afinite construction only occurs in embedded clauses with overt complementisers, these changes are of immediate importance to the topic of this thesis. For more discussion of this connection, see chapter 3.

e.g.: 'After the city had been destroyed by the enemies, the inhab-
itants lived in extreme misery' (lit.: *The city having been destroyed
by the enemies...*)

But unlike these clearly non-finite constructions, the afinite construction has
both an overt complementiser (or relative pronoun) and an overt subject, *wie*
'as' and *ich* 'I' in (11), respectively. The presence of the subject (and also the
complementiser) unambiguously indicates the finiteness of the clause.

(11) Darzuo   sag ich/ das der uns noch lang kein Teütsche
      there.about say I   that he us   still long no   German
      Grammatic geben oder beschribē hat/ der ein Lateinische für
      grammar   given or   described has who a   Latin.one   before
      sich nimbt/ un- verteütscht sie/ **wie ich jr   etwa   wol**
      REFL *takes   and germanises it   as   I   of.these already well*
      gesehē [_]
      seen   [have]
      'About this, I want to say that this person still has not given us a
      grammar of German, who only takes a Latin grammar and translates
      it into German, as I have seen several times.'

                                                              (Ickelsamer (1534; Aj^v,10-14))

We therefore are to wonder if the differences from the (Latin) non-finite par-
ticipial constructions are not bigger than the similarities, although Gumbel
(1930:51-53) and Admoni (1967:191) claim that the omission of the auxiliaries
was triggered in an attempt to make finite embedded clauses more similar to
participial and other infinitival constructions in order to stress their depen-
dency on higher contexts. But while participial constructions replacing finite
clauses were perhaps formed after Latin patterns, the afinite construction itself
– auxiliary drop from finite embedded clauses – is clearly an entirely language-
internal development.

   This, of course, does not clash with the fact that the afinite construction
originated in German chancery style (Biener 1925), it only means that its de-
velopment was not influenced by Latin. And it does seem to be true that aux-
iliaries tend to be dropped more frequently in texts of a less spoken-language
character (Admoni 1990:196). Admoni, who argues that the afinite construc-
tion emerges as a means to stress subordination (Admoni 1967:190f), shows
that chancery language is the style in which the new means to express complex
contents by differentiating hypotaxis and parataxis (Admoni 1967:166) develop
first.[11] From this, it follows that omitting the auxiliary is rather a phenomenon

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[11] For Admoni, the omission of the finite auxiliary in embedded clauses is "eine Vermin-
derung der Züge, die den Nebensatz mit dem selbständigen Satz verbinden" (Admoni
1967:190f), 'a reduction of the traits which embedded and independent clauses have in
common'. This means that the afinite construction emerges as one of the means to dif-
ferentiate embedded and independent clauses. In a period which is characterised by a

of written language. However, Bock's (1975) study of the language of political
flyers connected to the Reformation and the ensuing farmer riots (the period of
1517-1526) shows that also texts addressing the lowest social classes contain a
fair amount of auxiliary ellipses (between 12.5 and 57.1% of the auxiliaries are
dropped, about 30% on average). Bock, therefore, takes it that the ellipsis was
not entirely a phenomenon of higher style or chancery-influenced, but – unlike
in the present day language – must have been present in spoken language at
least to a certain extent, since otherwise, the mostly illiterate addressees of the
agitative texts would not have been able to understand them.[12]

(12)   "Wenn nun in dialogischen Flugschriften [...] das Verbum
              finitum beim nichtkoordinierten Partizip Präteritum (Par-
              tizip II) in eingeleiteten Nebensätzen ausgespart wird, so ist
              anzunehmen, daß diese Ersparung volkssprachlichen Kom-
              munikationsgemeinschaften bekannt gewesen sein muß, wenn
              sie nicht gar von diesen Kommunikationsgemeinschaften gele-
              gentlich genutzt worden ist."[13]

                                                              Bock (1975:562)

Bock (1975:564f) admits however that a certain influence by the written lan-
guage on the spoken language may have facilitated the infiltration of the spoken
language with the auxiliary ellipsis.

2.4. Factors influencing the emergence

This section will discuss four proposals concerning the reasons for the emer-
gence of the afinite construction, none of which, however, seems to offer a
satisfactory account.

2.4.1. Reanalysis of finite verb forms

Biener (1925) proposes that the uncoordinated use of the participle instead of
the combination auxiliary + participle must have originated as a reanalysis of
past tense forms in cases where they were homonymous with the participle,
and that it later spread to non-homonymous cases (Biener 1925:296). He sees

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strong increase in hypotactic structures (use of clausal subordination) and the emergence
of new means to express them (Admoni 1967, Besch 1980, Betten 1987), this is a very
likely reason.

[12] This is Bock's argument. One may object that even in the present-day language, the
      auxiliary drop is *understandable*, even though it is no longer productive, but extremely
      archaic.

[13] 'If the finite verb with the non-coordinated past participle could be dropped in embedded
      clauses with complementiser in dialogic flyers [...], we can assume that this omission must
      have been known to the vernacular communication groups, if it was not even sometimes
      used by these communication groups'.

a certain influence on such a development in the old function of the participial prefix *ge-* as a perfective/resultative aspect marker, which as such could also combine with finite verb forms (see also Behaghel (1928)). The 1Sg and 3Sg past tense forms of *ge-*prefixed weak verbs and the 1Pl and 3Pl forms of strong verbs whose root vowel was the same as in the participle stem are homonymous to the past participles of these verbs.[14]

According to Ebert et al. (1993:386), however, the combination of resultative *ge-* with finite verbs becomes very rare in the 15th century and disappears entirely in the early 16th century. This is exactly the time when the afinite construction emerges. Ebert (1980) argues that the reanalysis of the *ge-*prefixed past tense forms as past participles (Ebert 1980:134) proceeds exactly because of this loss of *ge-* as a perfective prefix combining with finite verbs.

Besides, such a reanalysis of finite past tense forms would have been possible with verbs with other perfective non-separable prefixes like *be-* in (13), whose participles cannot combine with *ge-*.[15]

(13)   eins teils darum-/   dz   jnen der   dingen jr   lãbē lang nichts
       one part because.of that them these things their life long nothing
       sonders **be**gãgnet   [＿]
       special   encountered [*is*]
       'For one part, it is because no such thing has ever happened to them in their whole life'

                                                                (Lavater (1578; 12r,25-12v,01))

Once this reanalysis was possible, Ebert argues, the afinite construction could spread to other participles whose *ge-*prefixed past tenses were not homonymous to the past participle.

But this alleged reanalysis by which the past participle inherits a certain independence ('freedom') from auxiliaries (Biener 1925:296) fails to explain why the free, auxiliary-less use of the participle should ever come to spread. Such a spread is only possible when the periphrastic perfect and passive have already grammaticalised. This is necessary because otherwise the reanalysis would not have taken place, despite the loss of the *ge-*prefix. The participle can perhaps be used instead of a former finite verb as especially promoted by Schröder (1985), but as his quote in (14) shows, the participle in this position is in complementary distribution with periphrastic constructions with overt auxiliaries.

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[14]   The reason why this reanalysis occurs only in embedded clauses is, according to Biener, that this is where both the finite verb and the non-finite product of the reanalysis are traditionally found in clause-final position (Biener 1925:296f).

[15]   In (13), the past participle *begãgnet* 'encountered, happened' *is* homonymous to the finite present tense form, but this interpretation is clearly excluded by the adverbial *jr lãbē lang* 'in their whole life'.

(14)   "Allerdings werden immer potentielle *sein*- oder *haben*-Gefüge
              ersetzt und ist nicht an irgendwie partizipiale Konstruktion
              mit attributiver oder prädikativer Funktion zu denken [...]"[16]

                                                            (Schröder 1985:43)

This means that the participle can only fill the slot of the older *ge*-form if the
construction auxiliary + participle is already an option in this position. This
holds even more so for the other periphrastic constructions without partici-
ples to which the auxiliary drop spreads. Such constructions are those with
zu-infinitives or copula with predicate nouns/adjectives, cf. (15) and (16), re-
spectively.

(15)   das also nichts   sonders inn der Jnsel/ dieweil sie nit bewohnet
       that thus nothing special in   the island while   it   not inhabited
       wirt/ zufinden [_] / dann allein die wilde Capparen
       is   to.find [is]   than alone the wild   capers
       'that thus on this island, which is not inhabited, nothing special is to
       be found apart from wild capers'

                                                       (Rauwolf (1587; 12,27-29))

(16)   Auch die weyl ich nit allein ein narr   [_]/ sondern auch ein
       also the while I   not only   a   joker [am] but   also a
       geschworner Doctor der   heyligenn schrifft   [_]/ bin ich froh/
       sworn   doctor of.the Holy   Scripture [am] am I   glad
       daß ...
       that
       'But as I am not only a joker, but also a legally approved Doctor of
       the Holy Scripture (a theologian), I am glad that ...'

                                                       (Luther (1520; A2^b,3-5))

They as well must have been established as combinations of auxiliary and
predicate before they can be used without auxiliary. This means again that
they must have been interpreted as if containing an overt auxiliary, barring the
'no ellipsis' hypothesis.
    At this point it becomes clear that one crucial input condition for the emer-
gence of the afinite construction must be the previous grammaticalisation of
the periphrastic verb forms of the present and past perfect, the passive, and so
on. This seems to have been rather underestimated by the traditional litera-
ture. In the next subsection, I will digress from the topic of auxiliary ellipses
for a moment in order to show that it cannot be a coincidence that these pe-
riphrastic constructions emerge exactly in the period when the first cases of

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[16] 'It is however the case that [the participle when used as a finite verb] always replaces po-
tential periphrastic forms with *be* or *have*. The constructions are different from participial
constructions in attributive or predicative function.'

auxiliary drop occur.

2.4.2. Excursus I: the grammaticalisation of periphrastic verb forms

As the afinite construction concerns the auxiliaries in periphrastic constructions, it is necessary to look at the status of these periphrastic verb forms in the period in question. The question is to what extent these verb forms have already been integrated into the verbal system, that is, to what extent they can be called 'auxiliaries'.

In EMG, many changes are taking place in the verbal system. The period is very heterogeneous in itself. The verbal system is changing from an aspectual organisation to a temporal one. The functions of existing periphrastic verb forms change in the process and new ones are being introduced into the system. For the period we are looking at in this study, 1450-1650, the following changes are especially relevant.[17]

For the period between 1450 and 1550, the most important changes are:

1. present perfect becomes more and more frequent and full grammaticalisation is achieved in the early 16th century with the possibility of periphrastic perfect forms with modal verbs (IPP), causative *lassen* 'let' (IPP), *haben* and *sein*.[18]

2. in embedded clauses, dependent past is expressed by pluperfect instead of old *ge-* + simple past (preterite).

3. *werden* 'become' + infinitive becomes more frequent, but only really grammaticalises as future periphrasis in the middle of the 16th century (before, future was expressed by modal verbs *wollen, sollen* 'will, shall' + infinitive). Full grammaticalisation is achieved when the passive periphrases with *werden* and *sein* begin to develop future forms (*wird getan werden* 'will be(come) done' and *wird getan sein* 'will be done'). This means a further expansion of the temporal character of the verbal system as opposed to the older aspectual one.

4. passive is still aspectually characterised: *werden* 'become' + past participle expresses ingressivity (the entering into a state), *sein* 'be' + past participle expresses a resulting state. But the emergence of a perfect of the *werden*-passive (*er ist gesehen worden* 'he was/has been seen', lit. 'he is seen become') which come to be used instead of the present of the *sein*passive (resultative), is the first step towards a temporal organisation in the passive, too.

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[17] Cf., Oubouzar (1974), Ebert (1978) and Eroms (1990).

[18] IPP is the abbreviation for *Infinitivus Pro Participio*, cf. Modern German *weil Maria Max nicht **hat helfen wollen.**ipp* 'because Mary did not want to help Max', lit. 'has not wanted to help'.

According to Oubouzar (1974:52), the first change is due to the transition from an aspectual to a temporal verbal system, for the time being only in the active voice.[19]

Between 1550 and 1650, the following changes take place:

1. the perfect and future periphrases have now fully grammaticalised, that is, they have forms for all paradigm slots
2. the passive paradigm is now also no longer aspectually organised, which can be seen from the fact that the perfect of the *werden*-passive is now fully integrated into the system and has pushed out the older resultative form *sein* + past participle[20]
3. the past subjunctive (*Konjunktiv Präteritum*) no longer expresses a temporal distinction. Consequently, the present subjunctive is replaced by the past subjunctive and the (old) past subjunctive by the past subjunctive of the perfect (*als ob er das getan hätte* 'as if he had done it')

What is clearly interesting is the fact that the auxiliary ellipses in EMG emerge exactly in the time of the grammaticalisation of the Modern German verbal system with all its periphrastic verb forms. It means that it must have become possible to omit a finite *haben* 'have', *sein* 'be' or *werden* 'become' from a periphrastic verb form only when they had established as pure auxiliaries in these constructions. This concludes our brief excursus into the grammaticalisation of the periphrastic verbs forms in EMG.

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[19]   "Das Auftreten einer Form der Vollzugsstufe für die Modalverben überrascht nicht. Es ist die Folge der Wandlung des Verbalsystems im Aktiv. Nach Aufgabe des aspektuellen Charakters des Systems kann das Präfix *ge*- zu jedem kursiven Verb treten, um ein pII zu bilden. *ge*- ist grammatisches Morphem zur Bildung der Vollzugsstufe geworden." Oubouzar (1974:52) 'The occurrence of a form of the perfect for the modal verbs is not surprising. It is the consequence of the transition of the verbal system in the active voice. After abandoning the aspectual character of the system, the prefix *ge*- can attach to any process verb in order to form a past participle. *ge*- becomes a grammatical morpheme used for the formation of the perfect'.

[20]   The standard Dutch system has in fact retained this form: although Dutch does have a distinction between dynamic and stative passive, it has no perfect form of the dynamic passive. This form is homonymous with the present tense of the stative passive. Weijnen (1971) suggests that this may be a contact phenomenon, due to an Eglish and French influence on Dutch, as these languages also do not have such a form. This is not entirely plausible. First, not only dialects bordering with German ones have the perfect of the dynamic passive, but also some Flemish ones, which border with French dialects (Sjef Barbiers (SAND project), p.c.). Note also that those dialects of Norwegian that have both *ha* 'have' and *være* 'be' as perfect auxiliaries, and therefore can form the perfect of the dynamic passive auxiliary *bli* 'become', allow for optionally 'dropping' the past participle of *bli*, *blitt*. Perhaps it is a historical residue in both languages, reflecting the stage German was in between 1550 and 1650.

2.4.3. The role of auxiliary drop in coordinations

Let us now turn to the idea that auxiliary drop in EMG emerged under influence of coordination ellipses. According to Behaghel (1928), the emergence of the afinite construction is due to an extension of regular conjunction reductions:

(17)   "Ausgangspunkt sind m.E. die Fälle, in denen mehrere Sätze
          mit Präteritalumschreibung aneinander gereiht sind und zunächst
          das Hilfszeitwort zum Teil erspart wird."[21]

                                                          (Behaghel 1928:491)

Such a regular case of conjunction reduction is (18), an instance of Gapping:

(18)   und also het ym der künig die graffschafft gleich eingegeben/ im
        and thus had him the king   the county   right in.given   him
        und seinen erben. und [_]   in   mit brieff und sigel darumb
        and his   heirs   and [has] him with letter and seal thereabout
        versorget nach aller notturfft.
        provided after all   need
        'Thus gave the king the county to him and his heirs right away and
        provided him with it in a contract sealed and signed, respecting all
        needs'

                                                          (Fortunatus (1507; Bij^v,12-14))

Behaghel's view entails that all auxiliary ellipses in coordinations are such regular conjunction reductions. This means that they have to obey the same rules as these. In a similar vein, Bock (1975:567) does not seem to find it surprising that the overt and covert auxiliaries in coordinations with auxiliary drop did not need to be identical. He interprets the ellipsis of finite auxiliaries in general as a consequence of economy in language, enhanced by a certain syntactic similarity to participial constructions, although he has to admit himself that the presence of overt complementisers and subjects is an argument against such a proximity (Bock 1975:565). His tentative solution for the existence of 'ungrammatical' auxiliary drop in coordinations is that people wanted to stress parallelism of content by syntactic parallelism.

   We have to test two claims implicit in Behaghel's position:

   1. All auxiliary ellipses in coordinations can be explained as regular conjunction reductions.
   2. The afinite construction emerges due to an extension of coordination ellipsis.

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[21] 'In my eyes, the starting point are those cases where several clauses with periphrastic past tense verb forms are coordinated and in which the auxiliary verb is at first dropped in a part of the conjuncts.'

I will first define what is meant by 'regular' coordination ellipsis before I turn to the first question, whether all EMG auxiliary ellipses in coordinations have the same pattern as the regular ones. Consequently, I will give a brief discussion of the possibility that regular coordination ellipses could have served as a pattern in the emergence of the EMG auxiliary ellipses.

There are two types of coordination ellipsis constructions which are candidates for comparison, because they (may) also involve the ellipsis of verbal material, namely Gapping and Right Node Raising (RNR). The literature on both is overwhelming.[22] For the present purposes, however, it is sufficient to state the syntactic properties of the two constructions. Gapping as seen in (18) is a forward ellipsis, that is, the shared constituent is overt in the first conjunct and 'gapped' in the second. It is a so-called medial ellipsis, as the part shared by the two conjuncts is in the middle between the non-shared parts. A further constitutive property of Gapping is that it involves at least the finite verb, cf. (19).

(19)   Nataša likes chocolate and Anne [_] winegums.

Hartmann (2000) points out a relationship between this condition and the fact that in coordinated embedded clauses, the complementiser of the second conjunct has to be dropped obligatorily.

(20)   Jim said that Alan **went** to the ballgame and (*that) Betsy [_] to the movies.

Because of that, Hartmann argues that the condition that at least the finite verb be gapped is really an epiphenomenon of deleting the assertion feature, linked to finiteness and situated in C^o.[23]

The characteristic property of a Right Node Raising construction is that two conjuncts share a part, not necessarily a constituent (cf. (21)), at their right edge which is then linearised at the end of the second conjunct.[24] For an OV language like EMG, this means that an ellipsis of the finite auxiliary at the end of a coordinated embedded clause could be counted as RNR, (22).

(21)   Peter is selling his [_] and Mia is giving away her [old car].

(22)   aber was   erfunden [_] vnd ym do   von offenbart **ist** ist mir
         but   what found   [is] and him there of   revealed   is   is   me
         gantz   onwissend vnd verborgen.
         entirely unknown   and hidden

---

[22] For a good overview, and some recent proposals, see Hartmann (2000), Wilder (1994; 1996; 1997), Schwabe and Winkler (2003).

[23] About the relation of assertion and finiteness cf. also the discussion in chapters 3 and 4.

[24] This 'sharing' does not have to be understood too literally, cf. such cases as *John sang [_] and Mary hummed very different tunes.*

> 'but what has been found and revealed to him is entirely unknown to me'

> (Springer (1509; A2^a))

An important requirement in both Gapping and RNR is the identity of the string targeted by the ellipsis.[25]

Let us now see if the syntactic requirements for Gapping or RNR just described are fulfilled in the auxiliary ellipses in coordinations in EMG. Examples like (18) have been possible throughout the entire history of German. But not all EMG auxiliary ellipses in coordinations can be analysed as Gapping or RNR. Already in chapter 1, I mentioned the existence of what we called non-parallel coordination ellipses. There are four properties which set the latter apart from Gapping and RNR. In my corpus analysis, I counted only those as "auxiliary drop in coordinations".[26]

First, while it is true that the EMG auxiliary ellipses in coordinations are more or less parallel in most cases, they do not always exhibit the directionality requirements holding in Gapping or RNR. (23) is an example of a right-peripheral auxiliary drop in coordinated subordinate clauses.[27] However, the targeted part is in the second conjunct, and not, as required in RNR, in the first. It cannot be Gapping either, because while it is a forward ellipsis, the gapped part has

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[25] Again, in case of RNR, there can be exceptional cases, as in the example in footnote 24, but the interpretation is still that John and Mary produced tunes. In an 'RNR' construction with auxiliary drop such a distributional conflict is however not possible. The dropped auxiliary has to be identical to the overt one.

[26] In my corpus analysis, I counted the occurrences of four types of auxiliary drop in co-ordinations: parallel versus non-parallel with at least one overt auxiliary in one of the conjuncts and parallel versus non-parallel with all auxiliaries covert. However, I did *not* count the abundant cases of regular conjunction reduction (Gapping/RNR) among the 'parallel' ellipses, but only cases with the same form of an auxiliary dropped, but as in the form of either backward Gapping or forward RNR, or otherwise deviating from the normal Gapping/RNR structure. The reason is that regular Gapping has been possible throughout the entire history of German, and counting all these cases together with those cases which are particular to EMG would have blurred the picture and it would not have revealed anything about the contexts in which the afinite construction emerges. (i) is such an example of a 'parallel' case, where the auxiliaries would actually be identical, but are dropped from different periphrastic constructions. In (i), the *ist* of a modal passive is overt, the covert one is a copula:

(i)   Was nun sein bedeuttung sein werd/ ist schwärlich zu ergründen/ vnd [␣] ditz
       what now its   significance be   will   is hard   to determine and [is] this
       allein gewiß   ...
       alone certain
       'What will be its significance is hard to determine, and only this one thing is certain ...'

> (Kepler (1604; 396,3-5))

[27] (23) is a case of an asyndetic coordination, that is, without a coordinating conjunction.

to be flanked by lexical material.[28] It is furthermore not entirely clear if the deleted form is *sye* or *wäre* (or even *hätte*).

(23) er m$\overset{e}{a}$ldet daß er ein hochtragner/ nydiger vn̄gytiger   münch
he reports that he a   arrogant   jealous non.benevolent monk
gsyn sye/   auch mit verbottnen tüfelskünsten vmbgangen
*been be.*SUBJN *also with prohibited devil.arts   dealt*
[_].
[*be/was.*SUBJN]
'He reports that he had been an arrogant, jealous, malevolent monk and that he had dealt with the dark arts.'

(Lavater (1578; 36r,25-27))

The auxiliary deletion in the main clause in (24) seems to be an instance of 'backward Gapping', variously argued not to be possible.[29] An equally unattractive alternative would be to analyse (25) as a forward ellipsis under *ließ*, the finite verb of the first of the coordinated clauses. This cannot be Gapping at all because the forms are not identical, the overt verb being a main verb, while the elliptic category is an auxiliary.

(24) Vnd als   der mit schw$\overset{e}{a}$rem Ayd verpunden was/ ließ der
and when he with heavy   oath bound   was let the
Großf$\overset{e}{u}$rst den ledig/ vnd [_] jme gleichwol vil   D$\overset{e}{o}$rffer vnd
grand.duke him go   and [has] him even   many villages and
gueter zuegeaigent/ vnd reichlichen gehalten/ nichts   minder hat er
farms given   and sufficiently held   nothing less   has he
on   vnderlaß gedacht/ vnd weggesuecht/   dauonzukhumen/
without stop   thought   and ways.looked.for away.to.come
'And when he was bound with heavy oath, the grand-duke let him go and even gave him many villages and farms and held him sufficiently, still he tried relentlessly to find ways to get away'

(Herberstein (1557; 2r,40-42))

Second, in my corpus, about 55% of the auxiliary ellipses in coordinations are of the "ungrammatical" type, i.e., with different auxiliaries as in (25) or,

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[28] But cf. Ross (1970) for OV languages. However, also with an eye on (23), cf. the ungrammaticality of (ia) compared to (ib). It seems thus as if OV languages have some directional freedom in deleting right-peripheral material, but not in medial position.

(i)   a.   Martin hat einen Vogel gekauft und Klaus [_]   eine Katze aufgenommen.
M.   has a   bird bought and K.   [has] a   cat   taken.in
'Martin bought a bird and Klaus 'adopted' a cat.'
b.   *Martin [_] einen Vogel gekauft und Klaus hat eine Katze aufgenommen.

[29] Cf. Maling (1972) (contra Ross (1970)).

less often, with the same auxiliary, but in different number or tense, cf. (26) and (27), respectively.[30] That is, this can be no deletion under identity. (26) cannot be a constituent coordination of 'resurrection of the dead' and 'ghosts and angels', controlling one plural verb form, because there is an overt complementiser in the second conjunct ('and **that** angels and ghosts exist'). This is also an argument against the possible analysis of (26) as 'backward Gapping'. (27) cannot be RNR for an extra reason because the gap and the overt auxiliary are not structurally parallel. The overt auxiliary and alleged licenser of the gap, *haben*, is in an *Infinitivus Pro Participio* (IPP)-construction in the second conjunct. Assuming with Haegeman and Riemsdijk (1986) that inversion in the verbal cluster is only at PF, it would be possible to argue that in this particular case, gap and licenser do not have to be right-peripheral at PF (in an IPP-construction, the auxiliary precedes its selecting participle (in infinitive shape), here *lassen*). However, RNR is argued to operate on PF as well (Hartmann 2000). It is furthermore very unlikely that *lassen* was deleted in the first conjunct as well, therefore, the construction is simply not parallel.

(25) Diser   ware der Erste/ so   durch   die gewaltige Krafft vnd
      this.one was the first   who because.of the immense power and

      W$\overset{e}{u}$rckung dises Allerheiligisten Wunderbarlichen Sacraments von
      effect   of.this most.holy   miraculous   sacrament by

      Gott erh$\overset{e}{o}$rt [_]/   vnd seiner Kranckheit ledig zu werden
      God heard [became] and of.his illness   rid   to become
      verdienet hat
      merited   has
      'This one was the first who was heard by God and merited to be healed
      from his illness because of the immense powers and effects of this most
      holy and miraculous sacrament'

                                                          Eschenloher (1678; 31,13-16))

(26) daß die Saduceer nit gloubt habind/ dz ein vrstende   der
      that the Saduceans not believed have   that a   resurrection of.the
      todte- [_]/   vn- das geister oder engel syend
      dead [is.SUBJN] and that ghosts and angels are.SUBJN
      'that the Saduceans did not believe that there is resurrection of the
      dead and that there are ghosts and angels.'

                                                          (Lavater (1578; 12r,20-22))

(27) Dann nach dem   vnsere Schiffleüt den Jarstag/   jrem alten
      then after the.DAT our   sailors   the anniversary their old
      gebrauch nach gehalten [_]   / vnd bald hernacher 3   stuck
      custom   after held   [had]   and soon thereafter three pieces

---

[30] As indicated in footnote 26, I was only counting cases of auxiliary ellipses in coordinations
      deviating from pure Gapping/RNR, which accounts for this high percentage.

haben lassen abgehn/
have   let   off.go
'When our sailors had celebrated the anniversary according to the old custom and had soon after let out three cannon shots'

(Rauwolf (1582; 14,28-30))

In fact, (28) is combining all these things: the first missing auxiliary would be in a different tense (*ist* 'is' instead of overt *war* 'was'), the second one would be *hat* 'has', while a form of 'be' is overt.

(28)   welcher ein BurgersKind von Memmingen / vnd zu Straßburg war/
        who   a   citizen.child of Memmingen   and at Straßburg was
        auch hernacher Doctor der   H.   Schrifft worden [＿] / vnd zu
        *also afterwards doctor the.*GEN *holy Bible   become [is]   and at*
        Vlm gelehret [＿]
        Ulm taught   [has]
        'who was a citizen of Memmingen and Straßburg (and) also later became a theologist and taught in Ulm'

(Schorer (1660; B15,04-06))

Third, in about 68% of all auxiliary ellipses in coordinations, there is no overt auxiliary at all. (29) is an example where the same auxiliary is dropped in both conjuncts, (30) is an example of the 'ungrammatical' type. This is another argument against a classic analysis as conjunction reduction under parallelism where a gap is licensed by a structurally parallel overt element.

(29)   Als   sy alle der   Drewlianer beuestigungen erobert   [＿]/
        *when she all the.*GEN *Drewlians fortresses   conquered [had]*
        damit   jres   Manns   tod gerochen [＿]/ vnd sich wider
        *there.with her.*GEN *husband's dead avenged [had] and* REFL *again*
        gen   Kyow gekhert [＿]/ im   Jar nach der   Welt
        *towards Kiev turned   [had] in.the year since the.*GEN *world*
        beschaffung 6463. Jst sy   in GriechenLand gezogen
        creation   6463 is she in Greece   moved
        'When she had conquered all fortresses of the Drewlians, had thereby avenged her husband's dead and had returned to Kiev, she invaded Greece in the year 6463 since the creation of the world'

(Herberstein (1558; 3r,25-27))

(30)   einem anderen vnd fürnemmen man̄ zuo Argo/ der auch vff den
        a   other   and noble   man in Argo who also to the
        schouwplatz gangen [＿] vnd sich   glycher gstalt wie der vorig
        arena   gone   [is] and REFL *same   way   as the former*

gehalten [＿]
held   [*has*]
'another noble man from Argo, who also went to the arena and behaved
the same way as the other one'

(Lavater (1578; 13r,24-27))

However, there are also similarities between EMG auxiliary drop in coordina-
tions and Gapping/RNR. One similarity with Gapping is that in EMG auxiliary
drop in coordinated main clauses, the finite verb is targeted. Furthermore, it is
remarkable that ellipsis in coordinated main clauses in my corpus is almost al-
ways forward, apart from very few exceptions, although it may be non-parallel,
as discussed next. In embedded clauses the directionality seems to be much
less important. This may point at some common licensing conditions behind
Gapping and non-parallel auxiliary drop in coordinated main clauses.

For RNR, we have seen that the identity of syntactic structure, the direction-
ality of ellipsis and the right-peripheral alignment of the 'shared' material are
often not found. Furthermore, a condition on RNR formulated by Hartmann
(2000), namely that the last elements preceding the targets are contrastively
interpretable narrow foci is also often not fulfilled.[31] If we look back to e.g.
example (28), the set of elements preceding the gap is {*zu Straßburg, worden,
gelehret*}, thus, a predicate PP, the past participle of a passive auxiliary, and
the past participle of a main verb. According to Hartmann, however, these
elements have to be contrastively interpretable narrow foci. The sets of alter-
natives representing the focus values of the conjuncts must be identical, that
is for example in (31), the set of possible foods to buy like {{ein großes Stück
Kuchen}, {ein belegtes Brötchen}, {ein Stück Pizza}} ('a big piece of cake, a
sandwich, a slice of pizza').

(31)   weil   Maria Hans [ein großes Stück KUchen]$_F$ [＿] und Klaus Peter
        because M   H   a   big   piece cake   and K   P
        [ein belegtes   BRÖTchen]$_F$ **kaufte**
        a   sandwich   bought
        'because Maria bought Hans a big piece of cake and Klaus bought Peter
        a sandwich.'

Hartmann (2000:112)

This does not seem to be the case in right-peripheral auxiliary ellipsis in embed-
ded clauses in EMG. We have to ask whether we are actually dealing with RNR
then. Furthermore, most of the coordinated embedded clauses with auxiliary

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[31] This is one of the three conditions on RNR argued for by Hartmann (2000):

- the conjuncts must exhibit an identical syntactic structure
- the conjuncts must exhibit an identical distribution of focus features
- the last elements preceding the targets must be contrastively interpretable narrow foci

drop are such that no auxiliary is overt in any of the conjuncts (irrespective of the ellipsis targeting the same or different auxiliaries). Therefore, one would probably prefer to subsume the auxiliary ellipses in coordinated embedded clauses under the uncoordinated ones and give them the same analysis. As the ellipses in coordinated main clauses at least obey (largely) the directionality requirement on Gapping, they may potentially have arisen as an extension of the regular case as claimed by e.g. Behaghel (1928). However, as auxiliary drop in main clauses is so much less frequent in EMG anyway, we will set it aside for most of the remaining discussion and only return to it in section 4.3.

The second question ensuing from Behaghel's claim is whether the regular conjunction reductions that have always been possible in the history of German, really play a role in the emergence and spread of the afinite construction, and if they do, which. We have just concluded that the coordinate auxiliary drop in embedded clauses may be just the same as uncoordinated auxiliary drop in embedded clauses (the afinite construction), but that the auxiliary ellipsis in coordinated main clauses may potentially be an extension of Gapping.

Let us return to the claim that the afinite construction (that is, auxiliary drop in embedded clauses) emerges under the influence of regular conjunction reductions. Like Behaghel, Biener (1925) and Schröder (1985) argue that the auxiliary ellipses in coordinations are to be analysed as cases of conjunction reduction. While Schröder agrees with Behaghel's view that regular coordination ellipsis is the starting point of the afinite construction, Biener argues that auxiliary drop in coordinations has to be treated differently from the non-coordinated afinite constructions, but also from coordinations with no overt auxilaries at all. He thereby confirms what I just argued for, namely that a difference has to be made between auxiliary drop in coordinated main clauses and auxiliary drop in coordinated embedded clauses. Schröder argues that the 'free' use of the participle is the precondition for the development and that the fact that regular coordinations are possible leads to the 'ungrammatical' cases. The problem, as we will see in section 2.5.1, is that his argument is circular: the irregular conjunction reductions became possible because of the new possibility to use a participle instead of a finite predicate and that this became possible because of an extension of the coordination ellipsis possibilities. It seems furthermore implausible that 'ungrammatical' coordination ellipsis (in embedded clauses) should still be interpreted as conjunction reductions when free ellipsis is possible.

2.4.4. Haplology at clause boundaries

People have observed that auxiliaries are often dropped at the right periphery of embedded clauses under adjacency to a homonymous form in a following main clause and argued that this is a further factor in the emergence of the

afinite construction or an occurrence restriction.[32]

(32) Vnd als   er hierauff erlangter Gutthat wegen/   GOtt dem
      and when he hereupon received   good.deed because.of God   the

      HErrn innbrŭnstig gedanckt [_]/ hat er sein Gesicht ohne
      Lord   ardently   thanked [has] has he his vision   without

      Verbleibung einer Reliquien, oder Hinderhalt   eines Mangels/
      resting   of.a residue   or   staying.behind of.a deficiency

      gantz   vollkommentlich empfangen.
      completely entirely   received

      'And when he then thanked God the Lord ardently because of the good
      deed, he received (back) his vision entirely without keeping a residue
      or defieciency.'

                                                    (Eschenloher (1678; 38,06-10))

This means that something like a syntactic haplology is assumed to be behind
this kind of auxiliary drop. Haplology normally refers to the loss of one of two
identical or similar adjacent syllables in a word (e.g. Latin *nūtrīx* "nurse", from
earlier **nūtrītrīx*). A haplology in syntax would then be the deletion of one of
two identical words under adjacency.

   The great number of auxiliary ellipses without such an adjacency suggest
however that this cannot have been the only occurrence restriction. Further-
more, numerous examples can be found for adjacency of the gap to a *different*
finite verb than one of exactly the same form as the deleted one. For example,
the clause following the gap can start with (i) an auxiliary of different per-
son/number (33), (ii) an auxiliary in a different tense (34), (iii) an altogether
different auxiliary (35), (iv) a modal verb (36) or (v) even a main verb (37).

(33) Wie die Bevestigung   vnd die aussere Werck der   Stadt
      *how the defence.system and the outer   works the.*GEN *city*

      beschaffen [_]   / ist auß   dem   dieser Chronic beygefŭgtem
      *made   [are] is out.of the.*DAT *this   chronicle enclosed*

      Kupffer zu sehen.
      copper to see

      'How the walls and defense systems of the city are made is to be seen
      from the copper engraving enclosed in this chronicle'

                                                    (Schorer (1660; 6,02-04))

(34) NAch dem das Liecht deß   H. Evangelij je lănger je heller
      *after that the light   the.*GEN *holy gospel   the longer the brighter*

      geschienen [_]   / hat auch die Stadt Memmingen sich
      shone   [had]   has also the city   Memmingen REFL

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[32] Cf. Ebert (1986:133) and Ebert et al. (1993:442).

desselben   bedienet/   vnd eine Reformation in Religionssachen
*the.same.*GEN *made.use.of and a   reformation in religious.matters*
vorgenommen.
started
'After the light of the gospel had shone the longer the brighter, the
city of Memmingen made use of it as well and started a reformation in
religious matters'

(Schorer (1660; 12,20-23))

(35)   Als   Swatoslaw seine Khinder versehen   [_]   / ist er in
when Swatoslaw his   children taken.care.of [*had*]   *is he in*
BVLGERN gezogen/
Bulgaria   drawn
'when Swatoslaw had taken care of his children he invaded Bulgaria'

(Herberstein (1557; 3v,08-10))

(36)   WJe das Regiment vor   diesem gewesen [_] / vnd wie es geǎndert
how the army   before this   been   [is]   and how it changed
worden [_] / kan man in der Chronic   nachsehen.
become [is]   can one in the chronicle look.up
'How the army has used to work before and how it has been changed
can be looked up in the chronicle'

(Schorer (1660; 8B,25-27))

(37)   Nach dem Er es nun angenommen [_]   / kam Er
after that he it now accepted   [had]   came he
'when he had accepted it, he came'

(Schorer (1660; 15,10-11))

Another piece of evidence against the assumption of a superficial haplology con-
sists of examples of intervening material like topics, clause-connecting particles
(*so* in (38)), or entire embedded clauses as in (38):

(38)   Dan ob wol war [_]/ das (zum exempel) ein jeder gerader
but if well true [is] *that for   example a   every regular*
wolgemachter würffel sechs felder hat/ vnd eins so wol fallen khan/
well.made   die   six   sides has and one so well fall   can
als das andere/ [...] so würde man ...
as the other   so would one
'But even though it is true that every regular, well-made die has six
sides, and each of them can fall with equal chances, one would ...'

(Kepler (1604; 397,8-13))

Therefore, an adjacency at the surface as condition on the auxiliary drop as suggested in the traditional literature is implausible. Nevertheless, a 'deeper', structural adjacency may potentially play a role in the licensing of EMG auxiliary drop, e.g. if the preposed embedded clause is in SpeCP of the main clause and the finite verb of the main clause in C, and if this can somehow be argued to be a licensing configuration. It is conspicuous that all examples given in this section are preposed adverbial clauses. I tested the statistic correlation of position of an embedded clause and auxiliary drop for the three types of embedded clauses, and found a strong correlation exactly for adverbial clauses, which seem to prefer preposing with auxiliary ellipsis. I will discuss this issue in more detail in chapter 4 and give the results of the test in appendix B.5.

2.4.5. Analogy to main clauses

Bock (1975:571f) mentions the possibility that the afinite construction emerges in analogy to main clauses with full sentential bracket which end with a nonfinite predicate like an infinitive or a participle because the finite auxiliary is in second position (V2).[33]

This possibility can be rejected out of hand. As widely discussed in the literature, the full sentence frame develops first in embedded clauses and takes a lot longer to establish in V2 clauses.[34] Bock himself (1975:571) mentions that in the 14th and 15th centuries, only 50% of the main clauses were construed with a full sentence frame.

Another possibility along the same lines Bock briefly alludes to is that the older order auxiliary-participle in embedded clauses, where the participle follows the finite auxiliary and would therefore be sentence-final in clauses with a full sentential frame. It remains unclear why this would have lead to dropping the auxiliary, especially as the participle-auxiliary order establishes itself as the dominant one in the 16th century, while the auxiliary ellipses increase rapidly

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[33] 'Full sentential bracket' refers to the so-called *Feldermodell* 'fields model' of the German sentence (Drach 1937, Engel 1972):

(i)   pre-field | left sentential bracket | middle field | right sentential bracket | post-field

In verb second (V2) main clauses, the left sentential bracket is formed by the finite verb, in embedded clauses by the complementiser. The right sentential bracket is formed by the non-finite part of the verb or verbal particles, if present, in V2 clauses, and by the finite verb/the verbal cluster in embedded clauses. The pre-field is filled by one single constituent in main clauses and empty in embedded clauses introduced by a complementiser. The middle field is occupied by the arguments of the verb and adjuncts if present. The post-field is reserved for extraposed material. Clausal complements and relative clauses are typically found there (in modern German). In older stages of German, also still in EMG, also DP-arguments and APs could appear in the post-field, an option that is excluded in the present-day language. On the other hand, sentential constituents sometimes appear in the middle field in EMG. 'Full sentential bracket' means that there is no extraposition of middle-field material (that is, arguments apart from clausal ones).

[34] Cf. among others, Schildt (1976), Ebert (1980), Nyholm (1981), Lenerz (1984).

in frequency at the same time.

2.4.6. Summary

Four factors argued in the literature to be involved in the emergence of the afinite construction have been presented in this section.

First, it has been assumed that the auxiliary-less constructions developed as a reanalysis of finite past tense forms homophonous to the participles as which they were reanalysed and that this auxiliary-less use of participles was later extended to other participles or even non-finite predicates in general. The main flaw of this analysis is that it can neither account for this alleged spread nor does it take into account the fact that the new auxiliary-less constructions always occur in complementary distribution with the correlating periphrastic constructions. This presupposes the existence of the periphrastic constructions from which the auxiliaries are omitted.

A second possible cause for the emergence of the afinite construction that has been proposed is the extension of the possibilities of conjunction reduction. The data however show that (i) a distinction has to be made between EMG auxiliary drop in main versus embedded clauses and (ii) the direction of influence seems to be the opposite: the possibility to drop a finite auxiliary caused an extension of the possibilities in coordination ellipses.

Quite correctly, the third factor, an adjacency condition (haplology), is mostly seen as an additional factor at best. It was shown that even so, it is rather implausible because of the many cases where different forms of an auxiliary or altogether different auxiliaries (would) meet at the clause boundaries, not to speak of all the cases without that adjacency. For a spreading-analysis as in the first scenario, there is no evidence: the alleged cases of haplology appear at the same time as the other cases of auxiliary drop that are not adjacent to overt auxiliaries.

The fourth factor has been argued for by only one researcher. Bock (1975) discussed the possibility that the word order of main clauses with full sentential bracket, in which the non-finite predicate ends up in clause-final position, were the pattern for the auxiliary-less embedded clauses. This is a most unlikely scenario because many studies show that the full sentence frame developed first and was always more consistently used in embedded clauses (which means verb (cluster)-final order) than in main clauses (where the non-finite part of the predicate complex forms the right sentential bracket).

All in all, the four conditioning factors that are suggested in the literature on the afinite construction do not offer a satisfying account for its emergence. In chapter 3, we will discuss an alternative analysis for the emergence of the afinite construction.

2.5. Ellipsis or not

In this section, we turn to the discussion of the status of the afinite construction. The main question is whether it is an ellipsis or not.

2.5.1. Schröder (1985)

In his study of the auxiliary ellipses from perfect and passive constructions in the works of Geiler von Kaysersberg (esp. *Christenlich bilgerschafft*) and the writings of Martin Luther 1519-1530, Schröder (1985) argues that if the auxiliaries are omitted in all conjuncts of a coordination, or if there is no coordination (afinite construction), there is no ellipsis at all, but the past participle in these constructions is used as a full predicate *instead* of a finite verb. On the other hand, auxiliary ellipses in coordinations, both regular (Gapping/RNR, see above) and what he calls 'ungrammatical' (non-parallel auxiliary ellipsis coordination), are ellipses.[35]

Biener (1925:295) also excludes the possibility that the afinite construction is an ellipsis "weil sie als solche ganz isoliert ohne irgendwelche Analogie dastehen würde".[36] That is, because it is no ellipsis under identity, it cannot be an ellipsis at all.

Schröder (1985:9f), although he also assumes that there is no ellipsis in the uncoordinated embedded clauses without auxiliary but a free use of the participle, argues against Biener's assumption of a reanalysis of finite past tense verb forms, but without giving satisfactory reasons. According to him, the participle neither replaces an older (± homonymous) finite verb nor does it even need an auxiliary, it functions *instead of* or even *as* a finite verb (Schröder 1985:33; 40-47). Therefore, he calls these cases 'Schein-Ellipsen' (Schröder 1985:40), that is, only 'apparent' ellipses. He argues that this 'free' use of the participle, together with the possibility of conjunction reduction in coordinations, lead to the wide spread of the auxiliaryless constructions in the 16th century. He attributes this especially to Luthers influence on the beginning standardisation of the language.

Schröder remains rather unspecific about the reasons for how people came to use a participle instead of the combination finite auxiliary + participle. He refers to Behaghel (1928) who proposes that the ellipsis emerges as an extension of the Gapping and RNR constructions which have been possible at all times. The idea is that the gaps of the auxiliaries can be increasingly further apart until it causes no frowning anymore if they are different, because, according to Schröder, they are interpreted as full predicates without auxiliaries instead of finite verbs.

This argument is circular – it amounts to saying that the participle could be used as a full predicate instead of a finite auxiliary + participle complex after

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[35] Cf. also Biener (1925:295) for a similar division of the cases of auxiliary ellipsis.

[36] '... because as such (as ellipsis), it would be completely isolated and without any analogy'.

Gapping was reinterpreted/extended because the participle could be used as a full predicate. Furthermore, there is one step missing. It is unclear how the reanalysis of a participle as an independent predicate able to replace a finite verb, first only in the context of coordinations, later in embedded clauses in general, should have proceeded.

There are of course cases like Russian, where the drop of the perfect auxiliary lead to a reanalysis of the *l*-participle as a finite past-tense form. This is however not restricted to specific contexts like main or embedded clauses, coordinated or non-coordinated clauses. Given our assumptions about how human language and language change work (cf. e.g. section 1.5), all this would be rather mysterious.

Furthermore, as quoted above in (14) in section 2.4.1, Schröder himself acknowledges that the participle in its function replacing a finite verb only occurs in positions where a periphrastic construction verb + participle can be expected. This means that it must have been clear to the speaker/writer that s/he was using a construction which would normally be periphrastic with an auxiliary in this position. So, the interpretation of the elliptic construction must have been the same as the interpretation of the construction with an overt auxiliary. It follows that we are very likely dealing with ellipsis here, contrary to Schröder's claims.

2.5.2. Excursus II: free participles and infinitives

As a last point on Schröder's hypothesis that the participle acts as a full predicate which does not even need an auxiliary in the uncoordinated auxiliary drop constructions in EMG, we would like to use evidence from Present-day German. This is certainly a weaker argument, but nevertheless worth considering. In Present-day German, there *are* constructions with freely used participles (cf. the imperative use of the participle in (39)).

(39)   Aufgepasst!
        attention.paid
        'Attention please'

Cases as in (39) underlie specific syntactic, semantic, and pragmatic restrictions, which are not found in the EMG cases of auxiliary drop. EMG auxiliary-less sentences behave just like finite sentences, with overt complementisers and subjects. Fries (1983) names a number of properties which distinguish such "free" uses of the past participle from finite clauses. Generally, sentences whose only predicate is a "free" participle in Modern German are either imperatives like (39) or clarification questions like (40).

(40)   A: ... und dann habe ich meine Tasche abgelegt.
           and then have I   my   bag   down.put

B: Die Tasche abgelegt? Warum das denn??
   the bag   down.put why   this PRT
'... You put your bag down? Why on earth did you do that?'

1. If the participle is used as an imperative (in which case it is substitutable by an infinitive), one can use an indefinite pronoun as an overt subject, but not a definite pronoun or noun or a proper name.[37]

(41)   a.   (Alle)   aufgepasst!
             everyone attention.paid
        b.   *Ich/ Er/ Herr Meier aufgepasst!
             I   he Mr. Meier attention.paid

2. Definite (pro)nouns are possible in cases like the surprised questions in (42) (cf. also (40)) repeating only the presuppositions of the preceding context. In this case, however, indefinites like *alle, keiner* 'everyone, noone' are impossible.[38]

(42)   a.   Ich/ Er/ Herr Meier (und) gelogen?!
             I   he Mr. Meier and   lied
             'What?! I/he/Mr. Meier sould have told a lie?!'
        b.   *Alle/   Keiner (und) gelogen?!
             everyone noone and   lied

3. While in cases like (42), the perhaps missing verbs could be added, albeit at a loss of the grammaticality contrast (cf. (43)), in the imperative cases, nothing can optionally be added. (44) is ungrammatical, and, what is more, even if it was grammatical, it would not even mean the same as (41a) (which, as indicated, is synonymous with the infinitive).

(43)   a.   Ich **soll**   gelogen **haben**?!
             I   should lied   have
        b.   ^ok Alle/Keiner   **soll(en)** gelogen **haben**?!
             everyone/noone should   lied   have

(44)   *Aufgepasst   **haben**!
        attention.paid have

In the EMG auxiliary ellipsis constructions, however, sentences of the same type occur in the same text with and without auxiliaries. This is exemplified by the two adjunct clauses in (45) and (46).

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[37] In case of proper names and 1/2SG personal pronouns, a second reading may be possible: the vocative. This is not the intended one in (41b).

[38] Again, as subjects of course. As Henk van Riemsdijk (p.c.) points out, indefinite non-subjects are licit: *Ein Sechser im Lotto und trotzdem Pleite gegangen?* lit. 'A sixer (six right numbers) in the lottery and still bankrupt went?'

(45)   Als   Volodimer von wegen   der Anna / die Tauff   angenumen
        when Volodimer of   because the Anna   the baptism accepted
        [_]
        [**had**]
        'When Volodimer accepted the baptism because of Anna'

<div align="right">(Herberstein (1557; 4v,22-25))</div>

(46)   So   nun die Littn   sich gar vber   den Pach geben **hetten**
        when now the Lithuanians REFL *all across the creek given* **had**
        / rugkht der hauffen auß   der Hallt
          came   the pack   out.of the hiding
        'When all the Lithuanians had crossed the creek, the army came out
        of the hiding'

<div align="right">(Herberstein (1557; 2r,25-26))</div>

This optionality without syntactic or semantic restrictions indicates that we are not dealing with a construction similar to the Modern German ones, which represent true free uses of participles as sole predicates. EMG sentences with auxiliary ellipses are only distinguished from their non-elliptic counterparts by the missing auxiliary, otherwise, there seem to be no syntactic effects.

2.5.3. Summary

In this section, I argued that Schröder's analysis of the afinite construction as a free use of the past participle is implausible, first, because his argument for their emergence is circular, second, because the auxiliary-less participles are obviously in complementary distribution with non-elliptic periphrastic constructions, and third, because embedded clauses in the afinite construction show all hallmarks of finite clauses – complementisers, overt subjects and the same distribution, unlike e.g. freely used participles in Modern German.

2.6. Reasons for the disappearance

The disappearance a of a construction only relatively short time after its emergence poses a certain problem to the theories of language change available. Among all scholars having written about the afinite construction, only Admoni (1967; 1980; 1990) and Härd (1981) discuss possible reasons for the quick disappearance of the afinite construction. Admoni gives three in essence psychological reasons, while Härd offers an account in terms of grammatical change.

As mentioned in section 2.3, Admoni assumes that the ellipsis develops into something similar to participial constructions, a means of marking embeddedness. In his works, Admoni assumes different positions concerning the reasons for the disappearance of the construction. According to Admoni (1967), the

reason is that this reduction of independent finite clauses to elements internal to the embedding clause (namely participial constructions) means an 'impoverishment' of the syntactic possibilities of the language:

(47)   "Die Degradierung des Nebensatzes zu einer Konstruktion,
            die ein Teil des Elementarsatzes wird, könnte letzten Endes
            zu einer Verarmung des syntaktischen Systems führen." [39]

                                                            (Admoni 1967:192)

As in developing the afinite construction, it was not the 'intention' for participial constructions to *replace* embedded clauses, but to develop both means of expressing subordination, Admoni argues that the afinite construction was ultimately abolished in order to preserve both these forms.

   Admoni (1980) rather assumes a kind of markedness reason behind the disappearance of the afinite construction. Especially in chancery texts, the intelligibility is often pushed to the extreme. Admoni quotes examples of large complex sentences consisting only of embedded clauses with no main clause they depend on.

   According to Admoni, such excessive use of the possibility to drop the auxiliary ultimately leads to abandoning the construction:

(48)   "Allerdings wird in den krassesten afiniten Konstruktionen,
            die nicht Hilfsverben, sondern finite Vollverben beseitigen,
            sowohl die Verständlichkeit des betreffenden Elemenarsatzes
            oder sogar eines ganzen Textabschnittes gefährdet als auch
            die syntaktische Gliederung des Textes unklar, da das Ende
            der Nebensätze nicht markiert ist. Auf diese Weise beginnt
            die afinite Konstruktion eine Wirkung zu entfalten, die der
            strukturellen Grundleistung sowohl der Satzklammer als der
            Ersparung des finiten Verbs entgegengesetzt ist." [40]

                                                            (Admoni 1980:329)

Admoni (1990), finally, sees the reason for the disappearance of the afinite construction in the loss of its original motivation. As argued in all his writings, its function was to mark embedded clauses as such and integrating subordinated parts into the higher context, thereby 'ensuring the integrity' of large complex sentences. When the influence of the elaborate chancery style with its highly complex sentences on literary writing ceased, and authors went back to use

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[39] 'The degradation of the embedded clauses to a construction which becomes a part of the elementary clause might in the end cause an impoverishment of the syntactic system'.

[40] 'In the most extreme afinite constructions however, where not auxiliaries but finite main verbs are dropped, the intelligibility of the respective clause or even of the whole section is jeopardised. Furthermore, the whole organisation of the text becomes opaque because the end of the embedded clauses is no longer marked. In this way, the afinite construction begins to develop an effect which runs counter to the principal task [marking the end of an embedded clause, A.B.] of the sentence frame as well as the ellipsis of the finite verb.'

simpler sentences with fewer embeddings, this means of structuring complex sentences was no longer needed and ultimately abandoned.

Härd (1981) argues for 'language-internal reasons' behind abandoning auxiliary drop in the 18th century: With the consolidation of the verb-auxiliary-order (as opposed to the older auxiliary-verb order) in those verbal complexes which are especially prone to auxiliary ellipsis (especially the perfect of the *werden*-passive, Härd's 'Komplex I') and therefore the consolidation of the full sentence frame, the possibility to omit the finite auxiliary disappeared, because the 'full sentence frame' requires a finite verb at the right edge of the clause.[41] As this is however not the case for all verbal complexes (e.g. not those with IPP), and the order of non-finite verb form and auxiliary depends on many more factors[42], this proposal is not easily testable.

2.7. Conclusion

In this chapter, the 'state of the art' was discussed, the literature to date on the afinite construction, the positions concerning the reasons for its emergence and disappearance and its character.

Concerning its character, there are basically two positions: (i) it is an ellipsis, that is, there is a gap which has to be licensed somehow, and (ii) it is not an ellipsis, and the main predicate left behind does not need an auxiliary. It was shown that position (i) is more plausible given that clauses in afinite construction are in complementary distribution with clauses with overt finite auxiliaries, and that they have overt complementisers and subjects which dissimilates them from e.g. participial constructions replacing finite clauses.

About the reasons for its emergence, the picture is still quite blurred. I discussed four, partially combined, positions, (i) that the afinite construction emerges because of a reanalysis of finite past tense forms with aspectual prefixes, (ii) that it emerges because of an extension of coordination ellipsis possibilities, (iii) that a form of syntactic haplology at clause boundaries had an auxiliary influence and (iv) that the auxiliary-less embedded clauses were in fact formed after the pattern of V2 main clauses with full sentential bracket structure, that is, the non-finite predicate in the rightmost position.

It was shown that the 'reanalysis' account presupposes the establishment of the periphrastic verb forms for similar reasons as the 'freely used participle' account of the character of the afinite construction and that it is furthermore rendered implausible by the rapidly disappearing aspectual meaning of the most important aspectual prefix, *ge-*, exactly at the time of the emergence of the afinite construction. The role of coordination ellipsis is not entirely clear yet, and most scholars treat them differently from uncoordinated auxiliary ellipses. Theoretically most plausible seems to be a mutual influence. Ad (iii), it was

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[41] Cf. Härd (1981:127). The term '(full) sentence frame' refers to the bracket structure of the German clause discussed in footnote 33 in section 2.4.5 above.

[42] Cf. especially Ebert (1981).

argued that haplology may have been a factor for dropping an auxiliary at the clause boundary, but that its role in the emergence and spread of the afinite construction must have been very limited. The fourth proposal was rejected immediately.

Concerning the disappearance, there are three proposals by Admoni (1967, 1980, 1990) and one by Härd (1981). Admoni's proposals range from an increase in markedness causing a decrease in interpretability to the loss of the original motivation, namely to mark embedded clauses as such and integrate them with higher contexts, when written language became less hypotactic again. According to Härd, the establishment of the full sentence frame in embedded clauses with the finite verb in final position pushes the afinite construction out of use because it requires the finite verb to be present, not missing, in order to mark the right bracket.

In the next chapter, we will turn to the diachronic dimension of the afinite construction, setting (the main-clause variant of) non-parallel auxiliary ellipsis in coordinations aside for a moment.

The diachrony of the afinite construction

3.1. Introduction

This chapter will focus on the historical development of the afinite construction. This development falls into two parts, the emergence and spread on the one hand and the disappearance on the other. I will argue that the first part of the development can be captured with 'traditional' generative theories of language change, as an overt reflex of underlying parametric changes, that is, changes in the properties of functional heads. The disappearance on the other hand will be described as the consequence of stylistic changes, namely the decrease in use of highly complex sentential structures with a high degree of subordination and an increase in use of features which are closer to spoken language.

In the section 3.2, I will discuss the outcome of the corpus analysis. Subsequently, I will address the two separate processes of syntactic change identified (sections 3.3 and 3.4). Section 3.5 sums up the findings of this chapter.

3.2. Corpus analysis

In the corpus analysis, I looked at two different domains in the development of the afinite construction. First, the changes were separated for the types of embedded clauses, argument, adverbial and relative clauses. Second, the data were split along the types of auxiliaries dropped.

Let us first look at the three clause types. The table in (1) gives the frequencies and total numbers of finite auxiliary ellipses in the three types of embedded clauses.[1] Although there is a fair amount of variation in the use of auxiliary

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[1] 'Frequency' means the percentage of cases of auxiliary ellipsis with respect to all potential

drop among the individual authors, there is a general trend. In order to make
this trend more visible, I aggregated the frequencies of auxiliary drop in the
three types of embedded clauses within periods of 50 years between 1450 and
1700. The frequencies of the whole 18th century are aggregated into one figure.
Figure 3.1 depicts the development of the frequencies graphically.

(1)

	relative		adverbial		argument	
	%	#	%	#	%	#
1450-1500	2.6	229	4.6	245	1.2	215
1500-1550	16.8	255	19.7	257	9.5	235
1550-1600	48.2	434	54.0	420	26.4	179
1600-1650	66.9	565	68.9	478	52.7	237
1650-1700	60.8	392	65.7	488	44.9	176
1700-1800	17.9	163	6.6	145	25.2	76

The following observations can be stated:

- After 1500, the frequency of auxiliary ellipses increases considerably in
  all clause types, although the frequency of auxiliary drop in argument
  clauses does not increase as steeply in frequency as the frequency in rel-
  ative and adverbial clauses. Despite the less strong increase in auxiliary
  ellipsis in argument clauses, the differences in frequencies between each
  two adjacent periods can be shown to be highly statistically significant (p
  < .001) for all clause types between 1450 and 1600, reflecting the steep
  rise in frequency. The less steep slope of the curve in figure 3.1 between
  the two time segments 1600-1650 and 1650-1700 is reflected in the less or
  not significant differences between the frequency scores obtained for the
  two segments.[2]
- The frequency of auxiliary ellipsis is increasing until 1650, after which it
  drops dramatically. Also this drop can be shown to be highly statistically
  significant in all three clause types, cf. appendix B.2.4.
- Until it drops, the frequency of auxiliary ellipsis in argument clauses is
  consistently lower than the frequency in relative and adverbial clauses –
  6-10 percentage points between 1500 and 1550 and even around 20 per-
  centage points in the three periods from 1550 until 1700. Given a certain
  caution in interpreting the results, it is possible to test if this difference is

cases, e.g. percent of all relative clauses with a periphrastic construction. In the corpus
analysis, four types of relative clauses were distinguished (subject, object, free and adver-
bial relative clauses), which are not distinguished in (1). Cf. appendix B for these details,
also for the scores of the individual authors and a discussion of the underlying methods
and assumptions.

[2] Less significant for relative clauses ($\chi^2 = 4.66$, df = 1, p < .05) and not significant for
adverbial and argument clauses ($\chi^2 = 0.857$, df = 1, p > .05 and $\chi^2 = 3.784$, df = 1, p >
.05, respectively, the critical value of χ^2 for one degree of freedom at the .05 significance
level being 3.84). The detailed results of the χ^2-tests carried out comparing each pair
of adjacent periods for each clause type can be looked up in appendix B.2.4. As for the
methodological problems concerning the use of aggregated data, cf. appendix B.1.
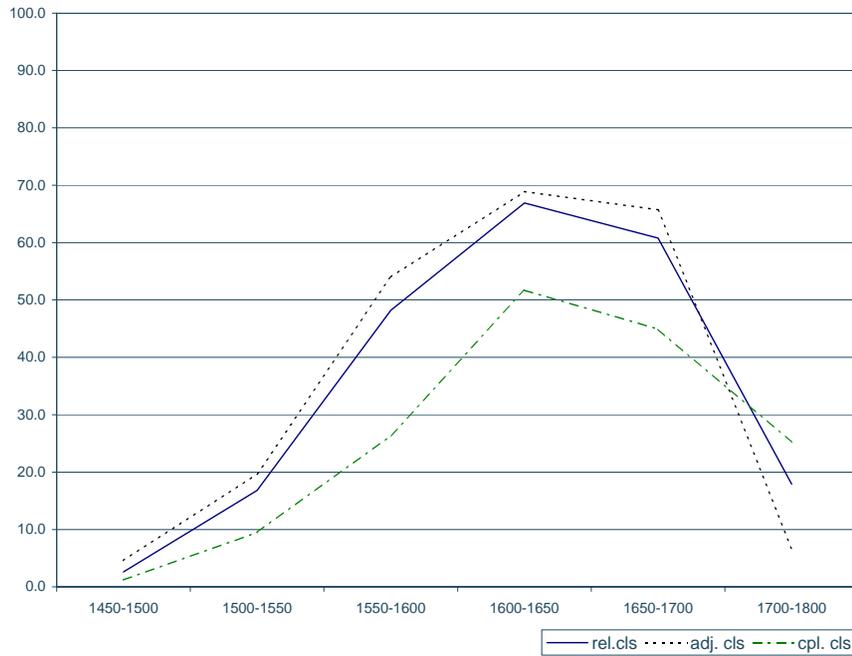
Figure 3.1.: Aggregated frequencies of aux drop with different clause types

statistically significant.[3]. We may interpret this as a consequence of the
linguistic difference between these clause types, argument clauses as op-
posed to relative and adverbial clauses being selected by the main verb of
the embedding clause. As will be argued in the second part of chapter 4,
auxiliary drop marks a clause as more dependent in the discourse struc-

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[3] These are the results of two pairwise χ^2-tests (argument vs. adverbial and argument vs.
    relative clauses), but again, as discussed in appendix B.1, these results have to be treated
    with caution because of the unequal contributions of the individual authors:

(i)

period	adverbial vs. argument			relative vs. argument		
	χ^2	p	N	χ^2	p	N
1450-1500	0,467	n.s.	460	0,644	n.s.	443
1500-1550	2.220	n.s.	490	1.684	n.s.	490
1550-1600	15.652	$< .001$	600	12.140	$< .001$	666
1600-1650	18.799	$< .001$	714	19.146	$< .001$	801
1650-1700	30.587	$< .001$	664	18.719	$< .001$	568
1700-1800	14.707	$< .001$	221	1.342	n.s.	239

(n.s. = not significant)

ture. Therefore, it is not surprising to find auxiliary ellipsis especially in relative and adverbial clauses, as these tend to be more presuppositional and can therefore be pragmatically backgrounded.

Let us now turn to the frequencies of auxiliary drop in the individual periphrastic constructions. In my corpus analysis, I have counted the frequencies of dropped (i) present perfect (*Perfekt*) auxiliaries (*haben* 'have' and *sein* 'be'), (ii) past perfect (*Plusquamperfekt*) auxiliaries (*haben* 'have' and *sein* 'be'), (iii) passive *sein* 'be', (iv) passive *werden* 'be(come)', (v) *sein* 'be' with *zu* 'to'-infinitive (modal passive), (vi) *haben* 'have' with *zu* 'to'-infinitive (a modal construction with obligational meaning), (vii) copular *sein* 'be', (viii) *werden* 'be(come)' with infinitive complements (depending on tense and mood of *werden*, future, inchoative past, or periphrastic conditional) and (ix) modal verbs (with infinitive complements)

Types (vi), (viii) and (ix) drop only very sporadically, so it is not clear if they really are the same phenomenon as the omission of the others. They rather appear to be exceptional overgeneralisations of the emerging 'rule' of auxiliary ellipsis. Thus, a unified description does not seem warranted. Therefore, I did not consider these auxiliaries in the analysis given below. The results of my counts can be looked up in the appendix. As with the frequencies of auxiliary ellipsis in the different types of embedded clauses, authors vary considerably w.r.t. the mean of every time segment of 50 years, but there is a clear trend, graphically rendered in figure 3.2.[4]

(2)

	pres. perf.		past perf		*sein*-pass.	
	%	#	%	#	%	#
1450-1500	3.8	287	2.9	46	0.0	55
1500-1550	28.8	235	14.1	97	9.9	87
1550-1600	69.4	445	51.7	210	39.0	76
1600-1650	86.0	652	53.5	156	48.2	66
1650-1700	91.1	447	82.7	199	55.4	51
1700-1800	40.6	110	12.3	42	4.0	31

	sein + *zu*		*w.*-pass.		copula	
	%	#	%	#	%	#
1450-1500	3.3	8	0.0	68	1.6	170
1500-1550	10.9	15	9.2	93	6.7	193
1550-1600	40.7	30	23.8	97	25.9	226
1600-1650	62.8	39	23.9	102	43.3	185
1650-1700	73.1	45	11.4	115	26.5	159
1700-1800	0.0	4	0.0	51	0.6	127

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[4] The figures in table (2) are the frequencies of auxiliary drop in embedded clauses only. For the frequencies of auxiliary ellipsis in main clauses, refer to appendix B.2.3. Please note that I did not count the 100% drop of *sein*+*zu*-infinitive in Adelung (1782) because this was the only occurrence of *sein*+*zu*-infinitive – overt as well as covert – in the whole text portion. It would therefore have distorted the average numbers without being relevant.
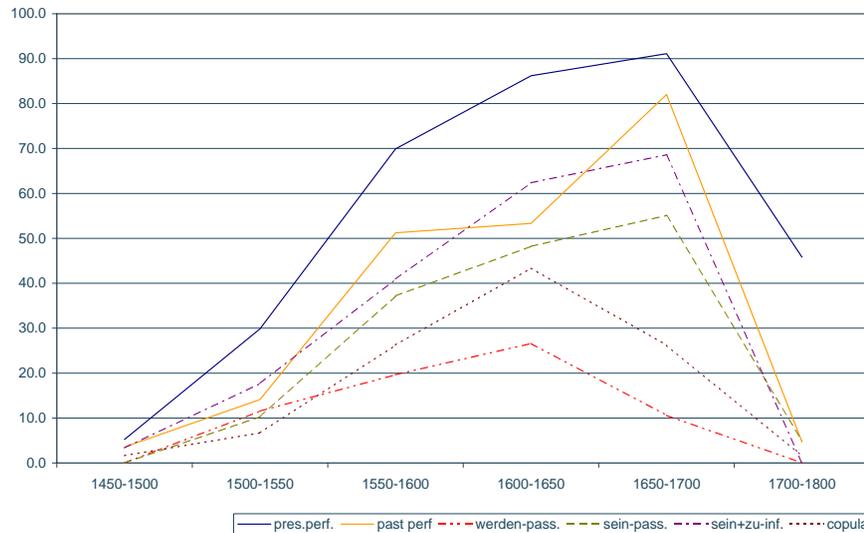
Figure 3.2.: Aggregated frequencies of aux drop with different auxiliary types

Generally, the development of embedded finite auxiliary drop in the different periphrastic constructions reflects the development observed in the three types of embedded clauses.[5]

- Especially, there is a dramatic drop in frequencies after 1700, though for the omission of the copula and *werden* in passives, the decline in frequency begins already in the second half of the 17th century.
- Auxiliary ellipsis with the other four auxiliary types rises in frequency until 1700 before it begins to disappear again.

Other observations to state are the following:

- Auxiliary ellipsis is especially frequent with the perfect auxiliaries *haben* and *sein* and in particular with present perfect auxiliaries.
- The ellipsis of *sein* as a passive auxiliary and in the modal passive construction with *zu*-infinitive also becomes quite frequent. However, in case of *sein* with *zu*-infinitive, the absolute numbers are never very high, so

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[5] However, testing the differences between adjacent pairs of periods using the χ^2-test as we have done for the auxiliary drop in the different clauses types discussed above (footnote 2) gives a rather mixed picture for the different auxiliary types, cf. appendix B.2.4. In fact, the differences between the periods are consistently statistically significant ($p < .05$) only for present perfect and copula. The results for past perfect reflect the results of the clause types, with a not statistically significant difference between the periods 1600-1650 and 1650-1700 ($\chi^2 = 0.034$, df = 1, n.s.).

perhaps one has to be cautious in making statements about this construction.

- Passive *werden* and the copula behave a bit differently from the other auxiliaries in that their rates begin to drop again already about 50 years earlier than those of the other auxiliaries.
- Present perfect auxiliaries are still quite frequently dropped until well into the 18th century, although at a much lower rate than in the period from 1550 to 1700.
- Ellipsis of the other auxiliaries (almost) completely disappears in the 18th century; only present perfect auxiliaries remain omissible to a higher extent, but here as well, the frequency drops dramatically from over 90% to about 40%.

All in all, we see a more or less regular rise in frequency of auxiliary drop until about 1700, followed by a rapid drop in the 18th century. This behavior suggests a separation of two different phenomena of syntactic change: (i) the rise and spread of the afinite construction on the one hand and (ii) the quick disappearance of the construction after 1700 on the other. This separation is motivated by generative theories of language change. It is assumed that language change is the consequence of grammar change in individual speakers in a population, that is, a change in individual I(nternalised) languages. Such a change is assumed to occur because of a reanalysis of the linguistic output (E(xternalised) language) of the parent generation, leading to a new parameter setting in the I-languages of the new generation as compared to the grammars that generated the output of the parent generation. That means that the E-languages of the speakers of the parent generation can exhibit some variation still supported by an old parameter setting.

Given this assumption, whatever underlying (parametric) change caused the rise of the auxiliary ellipses in EMG cannot equally be the cause of its disappearance. This implies that a new cause must be behind this new change. Even the reversal of the new parameter setting that brought up the construction back to its original setting would have to be regarded a new instance of parametric grammar change.[6] Therefore, we will look at the emergence and spread of the afinite construction and its decline separately.

3.3. The rise and spread

3.3.1. Mechanisms of linguistic change and the development of the afinite construction

In this section, I will discuss the theories of linguistic change already briefly outlined in section 1.5.2 with respect to the rise and spread of the afinite

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[6] The latter hypothesis is however unlikely, for reasons we will discuss in section 3.4.

construction.

The first part of the development of the afinite construction in embedded clauses takes a time course familiar from many other languages change processes discussed in the literature. After a slow start, the replacement rate of the old form with the new form accelerates at a certain point and when reaching completion, it slows down again, resulting in an S-shaped curve. This behavior is typical of language change processes. Examples of new forms replacing older ones in such a slow and gradual way with both forms coexisting in the same texts for some time abound in the literature.[7]

Several ways have been proposed to deal with the problem of gradualness. Lightfoot (1979; 1991; 2002) argues that languages change because certain piecemeal changes in the surface structure add exceptions and therefore markedness to the grammar until a certain threshold is attained. This threshold is defined by the *Transparency Principle* (Lightfoot 1979:ch. 3.1), requiring that surface structures be not too far away from deep/initial structures. The actual change then is the abrupt reanalysis of linguistic input by children acquiring a language such that these children converge on a grammar different from the grammar that generated the input – by the Transparency Principle, a grammar that is closer to or more consistent with the input (the E-language of the parent generation). Lightfoot argues in his works that linguistic output, that is, the surface form (E-language) can exhibit some variation without affecting the underlying I-language. That is to say that innovative (adult) speakers are given a certain room to vary. Such variation can lead to markedness w.r.t. to the underlying grammar. This markedness will build up over generations until it reaches the threshold, triggering the abrupt or 'catastrophic' reanalysis. So, Lightfoot admits the existence of gradual changes, although most of these will not cause deep changes in the parameter settings of grammars: "The variation may be irrelevant for emerging grammars, even imperceptible, or it may reach some threshold level and trigger a different grammar".

An alternative approach to the gradualness of syntactic changes is Kroch's (1989, 1994) grammar competition approach. According to this approach, the variation is not located in the E-language, but in the I-language of speakers. The idea is that there is a competition of mutually exclusive grammatical options in one speaker if there is sufficient triggering input (clear evidence that the input cannot have been generated by just one grammar). In a sense, speakers are 'bilingual' w.r.t. to a certain parameter during periods of change. This bilingualism is unstable due to Kroch's interpretation of the Blocking Effect.[8] The exact time course of syntactic changes in Kroch's theory is governed by extragrammatical factors: based on evidence that bilingualism is never fully balanced and bilinguals generally have a preference for one of the two lan-

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[7] Cf. for example Kroch (1989) who discusses the replacement of *have* by *have got* in British English, the rise of the definite article in Portuguese possessive noun phrases, the loss of verb-second word order in French, and the development of English *do*-support.

[8] For blocking in the domain of morphological doublets, cf. Aronoff (1976), for the application in the grammar competition approach, cf. Kroch (1994).

guages, Kroch argues that "one would expect to see a shift over time in favor of the true 'native' language of a community in cases of syntactic diglossia" (Kroch 2001:722f). A variant can have such an acquisition advantage if it is either more native to more speakers or if there is a difference in social register between the competing variants, that is, that some form prestige plays a role. According to Kroch, children are sensitive to frequencies in their linguistic environment. That means that as soon as the new form gets a slightly higher probability of occurring in the input to the language learner, that is, a statistical advantage over the competing form, it will gradually replace the old form in use. This behaviour is observed in contexts of competition of alternating forms in other sciences as well, like biology or physics (Lightfoot 1999). However, it is a crucial step from a reanalysed parameter setting in an individual child to a 'successful' language change.

(3)   "It may be urged that change in language is due ultimately
             to the deviations of individuals from the rigid system. But it
             appears that even here individual deviations are ineffective;
             whole groups of speakers must, for some reasons unknown to
             us, coincide in a deviation, if it is to result in a linguistic
             change."

                                                        (Bloomfield 1927:445)

Niyogi and Berwick (1997) propose a mathematical model of the spread of syntactic changes in a population. Assuming an idealised grammar with binary parameters and a certain learning algorithm, they show that if two grammars differ in exactly one parameter setting, the result is a quadratic (nonlinear) dynamical system. If the probabilities for the two competing grammars are different, that is, if speakers are more likely to produce sentences generated by one of the two grammars, the spread of the setting with the higher probability will automatically have a logistic (S-shaped) growth. Although they do not assume grammar competition within individual speakers, but within populations, their model seems to be compatible with the former approach (provided an adaptation of the learning algorithm). As Kroch (2001:722f) argues, there will always be preferences in a speaker for one of the competing options.

   Against a grammar competition approach, Hinterhölzl (2004) argues that variation in grammar can be explained by a division of grammar rules into core and peripheral rules combined with a concept of markedness.[9] According to Hinterhölzl, peripheral or stylistic rules can be reanalysed as rules of the core grammar when their frequency in the output crosses a certain (not further specified) threshold. Working on phenomena of word order change, he crucially defines 'peripheral rules' not as post-syntactic rules, that is, applying at PF, but as applying in syntax proper as well. They are distinguished from 'core' syntactic rules by the kind of features that trigger their application. Achieving

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[9] This division is in fact quite old, cf. Chomsky (1965).

effects in information structuring, "a peripheral/stylistic rule can be defined as a rule that leads to a marked prosodic output" (Hinterhölzl 2004:133).

Combining the positions, depending on the change concerned, Faarlund (1990) argues for both functional and formal causes of syntactic changes. Like Hinterhölzl, he acknowledges the influence of discourse and information structure on word order. Other changes, e.g. in the configurationality of a language, are consequences of morphosyntactic changes e.g. in the case system of the language. His *Principle of Synchronic Coexistence* ("A change from one form F to another form G cannot take place unless F and G can coexist as alternatives in a language", Faarlund (1990:48)) approaches the grammar competition view in so far as it requires competing forms to coexist in a period of transition. For the mechanics of syntactic change, Faarlund also assumes it to be located in language acquisition.

Let us return the afinite construction in EMG. As often reported in the literature and already discussed in chapter 2, it is rather a phenomenon of written than of spoken language, probably influenced by the fact that spoken language usually makes less use of embedded clauses, the context of the afinite construction. It is therefore less likely that it constituted something 'more native' to language learners. In order to make a grammar competition approach work one would have to argue that it was (the consequence of) a parametric change and had a certain prestige, being used especially in the influential chancery style. On the other hand, it looks very much like something one would like to analyse as a 'stylistic' rule and therefore explore the applicability of an approach as the one sketched in Hinterhölzl (2004).

Under a grammar competition approach, one would expect that the effects of a given parametric change in the grammar should show up uniformly in all linguistic contexts. That is, the rate of replacement of the old form with the new one should proceed at the same speed in all these contexts. This intuition is captured by the Constant Rate Hypothesis (Kroch 1989; 2001). This so-called Constant Rate Effect (CRE) indicates that a given grammatical change is uniform, that is, driven by the same parametric change in all contexts in which the new form shows up. "The set of contexts that change together is not defined by the sharing of a surface property, like the appearance of a particular word or morpheme, but by a shared syntactic structure, whose existence can only be the product of an abstract grammatical analysis on the part of speakers" Kroch (1989:201).[10]

Thus, if we were to assume a grammar competition approach, we would have to demonstrate a CRE in the development of the afinite construction in order to argue for an old grammar without auxiliary ellipsis being supplanted by a grammar with auxiliary ellipsis. The CRE would be evidence that we are

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[10] There can of course be clusters of parametric changes as well. If they all target the same 'subsystem of grammar', that is, are the result of the same reanalysis, we would expect them to be reflected as one single parametric change.

dealing with a uniform phenomenon, due to the same parameter resetting affecting all contexts. Let us tentatively (and without the appropriate statistical equipment) assume a grammar competition scenario and look for a CRE.

The crucial question is, what are the different contexts that have to be considered? There are several possibilities, but Kroch's definition given above seems to be best fulfilled by the different clause types. As can be seen from table (1), auxiliary drop is generally a bit less frequent with argument clauses than with non-selected clauses. It would therefore be interesting to see if the rate of change is still constant in the three contexts. In order to test whether the CRE shows up in our data, we will compare the probabilities for the occurrence of auxiliary drop in the different types of embedded clauses. These probabilities should be in more or less the same ratio at all times for the Constant Rate Hypothesis to be borne out.[11]

In table (4), we see the probabilities of the different clause types in the five periods in which the frequency of auxiliary drop rises. The ratio between them is relatively constant before 1550, and also after, but at a different ratio. Between 1650 and 1700, the probabilities of adverbial and relative clauses are furthermore the inverse of the preceding period.

(4)

	relative	adverbial	argument
1450-1500	.39	.39	.22
1500-1550	.37	.38	.25
1550-1600	.46	.42	.12
1600-1650	.46	.39	.15
1650-1700	.38	.50	.12

One problem is that there are only very few occurrences for the first two periods (1450-1500 and 1500-1550), so the absolute numbers are probably just too small for a reliable statistical treatment.[12] We cannot conclude that there is a CRE w.r.t. the clause types. However, this does not necessarily have to mean that the ellipsis of the finite auxiliary does not develop as a uniform phenomenon. There are three possibilities: (i) our choice of contexts was wrong – as the afinite construction only really occurs in embedded clauses, this is perhaps the only context there is to match Kroch's definition[13], (ii) the change does not proceed by grammar competition, or (iii) because the afinite construction is

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[11] This is an alternative way of showing that there is a CRE, as "a constant rate of change accross contexts is mathematically equivalent to fixity of contextual effects, in direction and size, across time periods" (Kroch 1989:206). Kroch uses to the logistic transform (logit) of the frequencies, computing the slope of the logistic function used to approximate the S-curve at chosen time spots, but he cites the works of other scholars who have used probabilities as well.

[12] But see the other studies discussed in Kroch (1989); there always seems to be some noise.

[13] Other possible contexts might be morphological criteria of the missing auxiliaries like person/number/mood or the different types of auxiliaries, cf. (2). Taking auxiliary types as base for a CRE test yields just as unclear results as (4), cf. the following numbers for the four auxiliary types that show the same rise/fall behaviour (i.e., not passive *werden* and copula which begin to disappear from use earlier):

only a possible but not necessary consequence of some underlying syntactic change and therefore one should look for a CRE there.

At any rate, we have to ask the question why the afinite construction appears only at the point in time it does, not for example earlier. One factor we discussed already in chapter 2 may be that constructions with auxiliaries, the input to the deletion rule, only grammaticalise so late. But the mere existence of periphrastic constructions cannot alone warrant the ellipsis of auxiliaries, especially it cannot explain the restriction of this ellipsis to embedded clauses. In the following subsections I will argue for two changes in the formal marking of embedded clauses that immediately precede or accompany the emergence of the afinite construction which I will argue to be the input conditions to this emergence.

3.3.2. The loss of subjunctive mood and the visibility of assertional force

Generally, the period between 1350 and 1650 is marked by an increase in the number of hypotactic constructions and the depth of embeddings.[14] Factors like the invention of print and spreading literacy caused a "shift from a syntax for the ear towards a syntax for the eye", Betten (1987:161). Therefore, there seems to have been a need for a refinement of the formal means for hypotaxis formation.

Besch (1980) identifies two important syntactic changes in the EMG period which make more extensive hypotaxis formation possible. One concerns the complementiser system, more precisely, changes in the inventory of complementiser elements (subordinators) of EMG. The other is the establishment of sentence-final verb placement as a formal mark of embedded clauses. Lühr (1985) argues that these two changes do not occur simultaneously just by chance, but are in fact both linked to the loss of subjunctive mood (*Konjunktiv*) as mark of embedded clauses.[15] Therefore, new means of marking the dependency of clauses had to be established.[16] I will argue that the loss of sub-

(i)

	prspf	pstpf	s.pass	s+zu
1450-1500	.85	.08	.00	.08
1500-1550	.66	.10	.18	.07
1550-1600	.65	.23	.07	.05
1600-1650	.76	.16	.05	.03
1650-1700	.64	.26	.05	.06

[14] Cf. (Admoni 1967) and section 3.4 below.

[15] At least until the MHG period, the main function of subjunctive mood was to mark subordination, cf. Moser et al. (1981:100) ("der eigentliche Funktionsbereich des Konjunktivs im Althochdeutschen" 'the actual functional domain of the subjunctive in Old High German').

[16] In Modern German, conditional clauses and complements of verba dicendi (the latter only optionally and more in written language) still appear in the subjunctive. According

junctive mood is the underlying parametric change that entailed the changes in the left periphery as well as the fortification of sentence-final verb placement which both figure as input conditions to the emergence of the afinite construction.

Let us see how this scenario can be made to work in detail. I will assume a split-CP structure for the clausal left periphery as argued for by Rizzi (1997; 2004). Rizzi (1997) proposes to view the CP-layer of the clausal architecture not as a projection of one single head, but as a system of functional heads much like the split analyses of VP (starting with Larson (1988)) and IP (Pollock 1989). The function of this C-system, according to Rizzi, is to be "the interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause)" (p. 283). Starting from the observation that it is the complementiser that provides the clause-typing, or "Force", information (question, declarative, exclamative, ...), Rizzi proposes that the highest functional head in the split-C domain, 'facing outside', is Force. Similarly, the lowest head Rizzi assumes for the C-domain, Fin for finiteness, is 'facing inside', selecting a finite or nonfinite IP and linking it up to the C-domain, e.g. determining the choice of the complementiser (cf. *that* vs. *for*). Between ForceP and FinP, there are a Focus projection FocP and possible projections for Topics above and below it. TopP does not have to be projected, as indicated by the Kleene-star, meaning ≥ 0 occurrences.

(5)

```
                    ForceP
                   /      \
             Force°      TopP*
                        /     \
                     Top°     FocP
                             /    \
                          Foc°    TopP*
                                 /     \
                              Top°     FinP
                                      /    \
                                   Fin°    IP
```
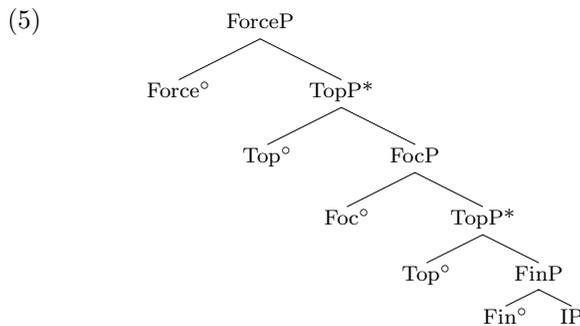
For our present purposes, especially the Force- and Fin-heads are important, but also Foc. FocP plays a role not only in focalisation, but, as argued by Grewendorf (2002), also in *wh*-movement, SpecFocP serving as the landing site of *wh*-phrases e.g. in German. Zwart (2000) argues for three CP-layers, the highest a kind of restrictor phrase, followed by a phrase hosting *wh*-elements and then one for *d*-elements (relative pronouns). In Dutch, the heads of these layers are $C_1 = als/zo$ 'as', $C_2 = of$ 'if' and $C_3 = dat$ 'that'. This confirms

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to Lühr (1985), until EMG, subjunctive mood was much more generally used in all kinds of argument and adverbial clauses.

exactly the Force-Foc-Fin order of C-domain heads as argued for by Rizzi and Grewendorf.

As will be discussed in more detail in chapter 4, I am assuming that the difference between independent and subordinate clauses consists in the presence or absence of assertional force, represented syntactically by the feature specification of Force° as [±AST], [+AST] in independent and [−AST] in subordinate clauses.

(6)
```
                ForceP
              /       \
         Force°       . . .
         [±AST]        |
                      FinP
                     /    \
                  Fin°     IP
```
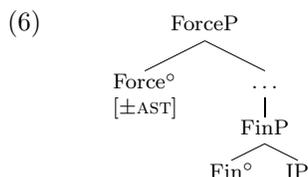
I propose that this feature and its values + or − have to be made visible in syntax.[17]

German (including EMG) has several ways of making [±AST] visible. Force [+AST] is e.g. marked by verb second. Force[−AST] in subordinate clauses can be marked by a complementiser, blocking verb movement[18], or by subjunctive morphology on the verb.[19] The idea is that Force[−AST] selects subjunctive mood in a functional head in the I/T-domain, MoodP. It does this via FinP, which establishes the relation between the I/T-domain and the C-domain. When subjunctive mood as an unmarked means of visualising [−AST] in Force is lost in the EMG period, as argued by Lühr (1985), the burden of visualising shifts entirely to the complementiser elements and the sentence-final verb placement they induce.

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[17] Brandner (2004) argues that German is a language in which the clause type always has to be made explicit, even in the unmarked case of declarative force. Her claim is based on a parallelism in the domain of interrogative marking. According to Cheng (1991), languages either mark interrogative force by particles (e.g., Chinese) or by *wh*-movement, that is, phrasal movement to the left periphery (e.g., English). Brandner observes that within the languages using the particle strategy, some like Japanese have particles only for interrogative force while others like Korean have particles also for declarative. She concludes that some languages have to mark illocutionary force explicitly while others do not need to mark the unmarked force. She extends this idea to the languages using the movement strategy to mark interrogative force and argues that the Germanic V2-languages, unlike e.g. English, also have to move an XP to mark the unmarked force, not only interrogative. That means that according to her, the trigger for V2 is really the need to move a non-interrogative XP to the left periphery in order to mark force. The verb movement under this analysis is only auxiliary to this in the sense that it creates the necessary specifier position. What V2 makes visible under this analysis is declarative and also assertional force, as becomes clear from Brandner's discussion of conditionals and questions.

[18] The correlation of the presence of a complementiser to the absence of verb movement is a common assumption since Bierwisch (1963), Koster (1975) and Den Besten (1977).

[19] For more discussion on this issue, cf. chapter 4.

The change in the realisation of [±AST] can be argued to be a parametric change in the sense of Roberts and Roussou (2003).

Grammaticalisation is generally defined as the creation of new functional material from previously lexical or also functional material. Because of its directionality (always from more lexical to more functional), grammaticalisation used to be a certain problem for generative theories of syntactic change, which views diachronic development of languages as their 'random walk' around the parameter space defined by UG (Lightfoot 1999). Such a view is incompatible with 'clines', drifts or pathways of change as found in grammaticalisation (Hopper and Traugott 1993).

Roberts and Roussou (2003) propose a unification of grammaticalisation and random parametric change in the P&P framework. Both are viewed as parametric changes. The differences between the two classes of parametric changes are illustrated in (7) for reanalysis after loss of movement, one type affecting all elements of a class (e.g., verbs) uniformly, the other targeting only a subclass (Roberts and Roussou 2003:§ 5.2.2). A feature Y formerly spelt out on a higher functional head X by movement can either result in the loss of the movement (7a), or in Y becoming the new exponent of X (7b).[20]

(7)   a. $[_{XP}$ Y+X $[_{YP}$ t$_Y$]] $>$ $[_{XP}$ X $[_{YP}$ Y]]
         b. $[_{XP}$ Y+X $[_{YP}$ t$_Y$]] $>$ $[_{XP}$ Y=X $[_{YP}$ Y']]

The distinctions between the two classes of changes Roberts and Roussou work out are the following (Roberts and Roussou 2003:208):

(8)   'Downward' changes ((7a), instantiated by e.g. the loss of V2, the loss of V-to-I/T, the change OV > VO)
         a.   apply to all members of Y;
         b.   do not change the category of Y;
         c.   involve no semantic or phonological change to Y-roots;
         d.   cannot be cyclic.

(9)   'Upward' changes ((7b), e.g. auxiliarisation of English modals)
         a.   apply only sporadically or to morphological subclasses of Y;
         b.   change category of Y;
         c.   are associated with semantic bleaching and phonological reduction;
         d.   can be cyclic.

For grammaticalisation, Roberts and Roussou identify three subtypes, given in (10) (Roberts and Roussou 2003:198f):

(10)   a. $[_{XP}$ Y+X $[_{YP} \ldots t_Y \ldots]]$ $>$ $[_{XP}$ Y=X $[_{YP} \ldots$ Y' $\ldots]]$

---

[20] Deviating from Roberts and Roussou (2003), in (7b), I am supplying the new exponent of Y after grammaticalisation of the old exponent of Y as the new exponent of X with a prime (Y') in order to stress the fact that this is a new exponent. In Roberts and Roussou (2003:207), (7b) looks as follows: $[_{XP}$ Y+X $[_{YP}$ t$_Y$]] $>$ $[_{XP}$ Y=X $[_{YP}$ Y]]. I am using this diacritic because it clearly indicates that the old and the new Y are different elements.

    b. $[_{XP} \ldots X_F \ldots [YP \ldots Y_F \ldots]] > [_{XP} \ldots X_F \ldots [YP \ldots Y \ldots]]$

    c. $[_{XP} \; YP \; X \ldots [YP \ldots t_{YP} \ldots]] > [_{XP} \; Y{=}X \ldots [YP \ldots]]$

Parametric variation is defined as variation in the morphological realisation of features. Therefore, there is a parametric change if a feature used to be spelt out by Move before the change and by Merge after, as in (10a,c), or if a feature used to be realised in two positions, a higher and a lower one, and comes to be realised only on the higher one, as in (10b). Grammaticalisation in Roberts' and Roussou's view is understood as structural simplification in the sense of (11), where "feature syncretism" means the presence of more than one formal feature in one structural position (Roberts and Roussou 2003:201).

(11)   A structural representation R for a substring of input text S is *simpler* than an alternative representation R′ iff R contains fewer formal feature syncretisms than R′.

The diacritic * on a feature F in (12) means that it requires a PF realisation, $F^*_{Move/Merge}$ means that this realisation is achieved by Move/Merge, cf. Roberts and Roussou (2003:29). Movement operations automatically create feature synchretism in the targeted head. Therefore, spelling out a feature by movement (F^*_{Move}) is considered to be the marked option as compared to other options like F^*_{Merge}. Roberts and Roussou (2003:210) give the following 'markedness hierarchy' for the expression of parameters:

(12) $F^*_{Move/Merge} > F^*_{Move} > F^*_{Merge} > F$

The more marked a parameter, the more robust its triggers have to be. Therefore, syntactic changes of the type (9), involving structural simplification, are predicted to replace a given expression of a parameter by one that is higher up the hierarchy in (12).[21]

Now, returning to our proposed change in the expression of the feature [±AST], we can state that it is an upward change as the morphological realisation of the feature shifts from a lower head (Mood) to a higher one (Fin or some other left-peripheral head hosting the complementiser). We have to admit however that it is not a change from $F^*_{Move} > F^*_{Merge}$. I would like to propose that features can be realised not only by Merge or Move, but also by Agree, and that the realisation of [±AST] on Force by morphological material in Mood is such a case.[22] Like a change $F^*_{Move} > F^*_{Merge}$, a change $F^*_{Agree} > F^*_{Merge}$ constitutes a structural simplification and therefore a parametric change in the sense of Roberts and Roussou (2003).[23]

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[21] The reason why languages never totally simplify w.r.t. parameter expression is that structural simplification is only local and may therefore create complexity in other places, cf. Roberts and Roussou (2003:212).

[22] Other potential cases are (negative) polarity items in *wh*-questions, which can be argued to agree with Force [+WH].

[23] Of course, there are still remainders of (synthetic) subjunctive mood in Modern German,

(13)   ForceP

    Force°   . . .
    [±AST] |
                     FinP

              Fin°   . . .
                          |
                        MoodP
                          |
                        Mood°
                        [±AST]
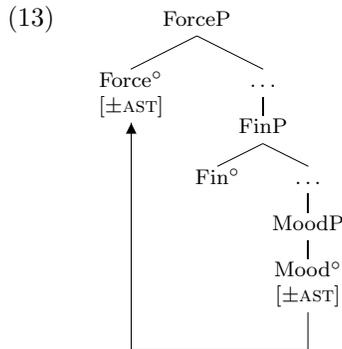
In the following, we will look at the two EMG innovations identified by Besch (1980), the changes in the C-system as well as the development of sentence-final verb placement in embedded clauses, which Lühr (1985) related to the loss of subjunctive mood just described. In section 3.3.5 we will relate these underlying changes to the rise of the afinite construction.

3.3.3. Changes in the inventory of subordinators

The extension and refinement of the inventory of complementiser elements in EMG is one of the major developments in the transition from MHG. The MHG inventory of subordinators was rather less elaborate than the EMG one and contained many polysemous complementisers like e.g. *dô, so, ob* and *wan(t)*. These are being diversified by three types of changes in EMG,

  (i) by the replacement by new/other forms,
 (ii) by compounding (e.g. of an old subordinator and an adverb as in the case of e.g. *ob-schon, wenn-gleich* 'although' (lit. 'if.already, if.soon'), *so-lange* 'as long as' etc.) and
(iii) by the creation of new complementisers, especially based on prepositions

Axel (2004:45f) distinguishes three subtypes for type (iii):

 (a) 'simple' preposition (possibly + *daz* 'that'), e.g. *bevor* 'before', *bis* 'until', *durch daz* 'through that', *ohne daz* 'without that'
 (b) deverbal preposition (+ *dass*), e.g. *während (dass)* 'during (that)', *ungeachtet (dass)* 'regardless (that)'
 (c) preposition+NP+(dass), e.g. *im Fall (dass)* 'in the case (that)'

(14) gives a rough picture of some of the changes.[24] Newly created forms (by compounding with the old base or entirely new ones) are indicated by a ⋆,

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but no longer as a canonical mark of subordination. It is restricted to conditionals and is becoming highly archaic after verba dicendi.

[24] For more detail, cf. Gelhaus (1972), Schieb (1970; 1978a;b), Betten (1984).

forms replacing one meaning component of older ones and thereby diversifying the older more general or polysemous meaning are indicated by →.[25]

(14) a. MHG | | EMG
dô	temporal	*da* 'then'	temporal
		da 'when'	temporal
		⋆ *als* 'when' (by (i))	temporal
		⋆ *nachdem* 'after' (by (iiia))	temporal
		⋆ *während* 'while' (by (iiib))	temporal
	causal	⋆ *weil* 'because' (by (i))	causal
b. *ob*	conditional	*ob* 'if'	conditional
		⋆ *wenn* 'if'	conditional
	concessive	⋆ *obschon, obgleich, obwohl, obzwar* 'although' (by (ii))	concessive
	concessive	⋆ *wiewohl* 'although' (by (ii), but from a different old subordinator)	concessive
c. *wenn/ wan(t)*	causal	(*wann* 'as, because')	causal
		→ ⋆ *da* 'as'	causal
		→ ⋆ *weil* 'because'	causal
		→ ⋆ *denn* 'because'	causal
	concessive	⋆ *wennschon, wenngleich* 'although' (by (iia))	concessive
	temporal	*wenn* 'when'	temporal

We will now see how in detail these changes took place.

The only concrete proposal to my knowledge is given in Lenerz (1984:ch. 2), who addresses the development of subordinate clauses in the history of German. According to him, no syntactic changes have taken place, in the sense that the structural representation of embedded clauses (and in fact also the one of unembedded clauses) has been identical throughout the entire history of the language. A more recent proposal to the same effect – that syntactic change is really the consequence of changes in the properties of lexical items

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[25] For specific discussion of OHG/MHG *wanta* 'as, because', see also Moser et al. (1981:209-212), who argue that the diversification was a reaction to homophony/polysemy, and served disambiguation of contexts, which were previously distinguished by other means such as word order or mood. An unambiguous subordinator, they argue, has the advantage of marking the type of a clause right at the beginning.

– is Longobardi's (2001) 'Inertia Theory'. According to this theory, "syntactic change does not exist as primitive [..], but can be reduced to independent changes in the phonological or semantic interfaces of individual lexical items" (Longobardi 2001:299). That means that lexical items change their properties independently of parameter settings, but can by this trigger a reanalysis of e.g. their featural content, parameter expression, or categorial status.

The structure Lenerz assumes for embedded as well as main clauses is the following:[26]

(15)
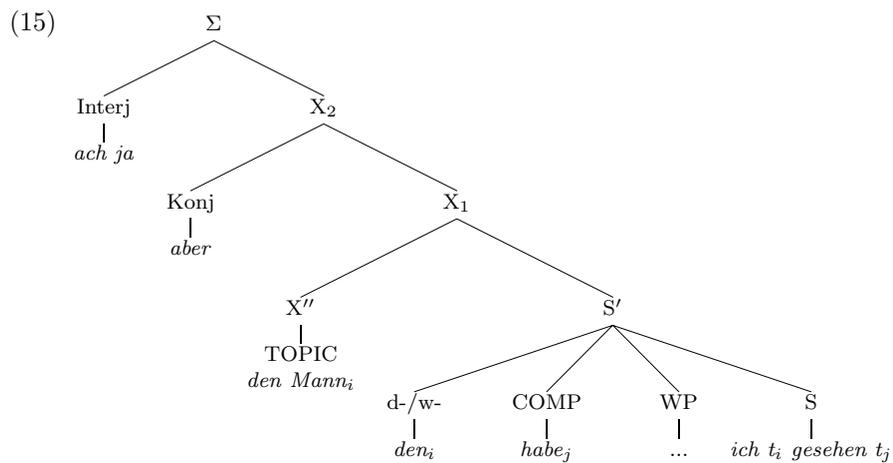
What changes in the history of German, according to him, is not the syntactic structure itself, but the subcategorisation properties of lexical items, which explains the emergence of new complementiser elements in the history of the language. The three possible reanalyses of material as exponents of COMP he argues for are summarised in his following representation:[27]

---

[26] Cf. Lenerz (1984:78). The translation of the represented sentence is 'Oh yes, but the man, I have seen him'. As can be seen, Lenerz assumes that conjunctions (*aber, und,* .. 'but, and') are in a different position than relative pronouns and complementisers (Konj, d-/w- and COMP, respectively). The label d-/w- refers to the kind of elements that appear in this position in German, namely demonstrative and *wh*-pronouns, e.g. relative or resumptive pronouns. WP is a label I added because this position immediately right of COMP is where Lenerz assumes 'Wackernagel'-material to reside, that is, light pronouns and adverbs that need a phonological host to their left. In the original representation, he mostly labels this node just '...'.

[27] Cf. Lenerz (1984:115).

(16)

$$X_1$$

X″
(correlate
coreferent
to S_j)

S′

d-/w-
(resumptive
pronoun,
correferent
to t_i in S_j)

COMP

WP
(Wackernagel
elements)

S_j
... t_i ...
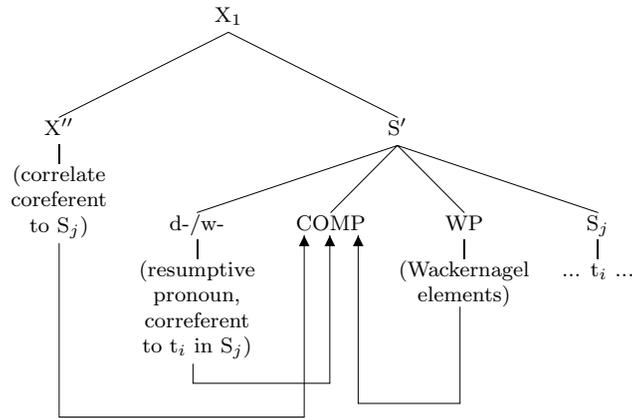
The trigger for these three reanalysis possibilities is the requirement that COMP be filled and a functional (not structural) change requiring the finite verb in clause final position as a mark of embedding. Filling COMP with some lexical element then blocks verb movement to that position and gives rise to the typical shape of embedded subordinate clauses in Modern German. However, Lenerz is working in the framework of the 'Revised Extended Standard Theory' (Chomsky 1965). As discussed in chapter 1, the variability of the properties of lexical items, especially functional elements, is exactly what is considered parametric variation in the Principles and Parameters framework (Ouhalla 1991, Chomsky 1995). I am arguing here that the reanalysis or grammaticalisation of so many new subordinators in the EMG period is the consequence of having to find new exponents for visualising the feature [−AST] after it is no longer (systematically) realised in Mood. Lenerz' proposal can be adapted for a richer CP-domain as proposed by Rizzi (1997), Grewendorf (2002) or Zwart (2000). The interpretation w.r.t. the nature of the changes is however very different from Lenerz'. As argued in 3.3.2, they are the consequence of a parametric change.[28]

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[28] In (17), I represent the 'Wackernagel'-position as a syntactic position, adjoined to whatever projection Fin° merges with (e.g. TP). This is merely a notational simplification, I rather assume light elements like pronouns and some adverbs and particles (e.g., *denn, wohl* 'then, well') to be placed to the right of the complementiser (the finite verb in main clauses) at PF as it is otherwise unclear what function/features in syntax this position would have.

(17)

```
                        ForceP
                       /      \
                  Force°       TopP
                  [−AST]      /     \
                            XP      Top′
                                   /    \
                                Top°     FocP
                                        /    \
                                      w-     Foc′
                                            /    \
                                         Foc°     FinP
                                                 /    \
                                               d-     Fin′
                                                     /    \
                                                  Fin°     TP
                                                  COMP    /  \
                                                         WP   TP
                                                              |
                                                             ...
```
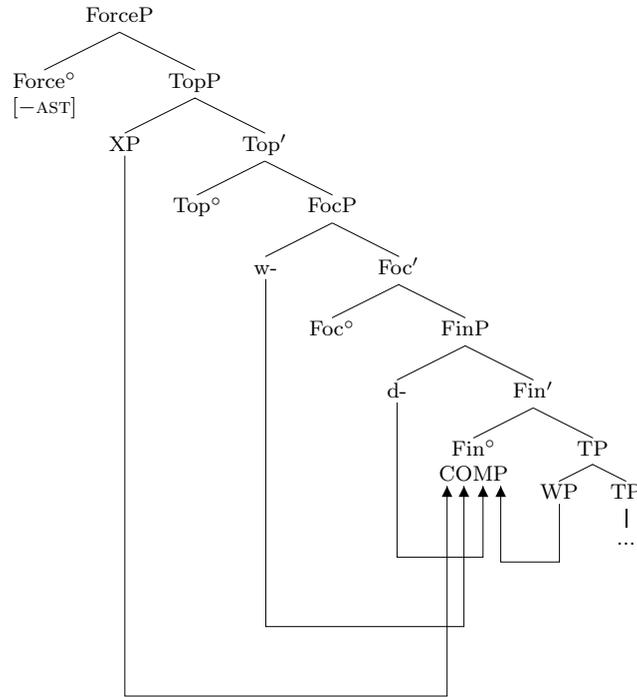
Let us now look at the different changes in the inventory of subordinators in more detail.

(i) Replacement of old complementisers by new forms. Changes of this type are often only semantic or functional shifts. As could be seen in the case of the highly polysemous MHG subordinator *dô* in table (14) above, new forms take over some of the many meaning components the old form had. As an instance of the changes of type (i), let us look at *weil* 'while → because' replacing *dô*. Originally it developed from an element in the main clause to a subordinating conjunction.[29] In the time we are interested in, however, it had already been reanalysed as a complementiser, namely a temporal one meaning 'while'. Using Longobardi's Inertia Theory, the development of *weil* looks as follows.

(18)   *weil*
        a.   semantic change: 'time span' > 'while' > 'because'
        b.   categorial change: N > C > C

---

[29] More to the detail, from an NP modified by the CP (kind of relative clause) – (all) the while [CP [C that] ...] ⇒ [CP [C while] ...]. For a similar development, see the case of *während* below.

The second change, from a temporal to a causal complementiser with the meaning 'because' is the one we are interested in here. A possible reason for this semantic or functional shift, not accompanied by a categorial change, could be that *weil* shifted in meaning because of a semantic overlap with the causal meaning (temporal coincidence interpreted as truth-conditional coincidence: 'while X is true: Y' > 'Y because X is true'). This gave room for the emergence of a new exponent for the meaning 'while', the originally deverbal preposition *während* we will discuss under (iii).[30]

(ii) New complementisers by compounding. In the corpus, we can actually see the process of compounding of an old subordinator with an adverb in progress. There are still examples of material intervening between complementiser and adverb next to examples of adjacent positioning, cf. (19) and (20):

(19)   vnd **ob** jhm **wol** 20. Tausendt Ritter   erschlagen [_]/
        and if   him well 20 thousand knights killed   [were/became]
        noch dennoch bezwangk er die Teutschen/
        but   still   defeated   he the Germans
        'and even though 20,000 of his knights were killed, he still defeated the Germans'

                                                              (Bange (1599; 11r,17-18))

(20)   und **ob wol** in Theologia, Physica und Mathematica, die Warheit
        and if   well in theology   physics and mathematics   the truth
        entgegengesetzt [_]
        opposed   [is]
        'and even though the truth is the opposite in theology, physics and mathematics'

                                                              (Andreae (1614; 17,23-24))

It seems therefore as if the new subordinators come about by reanalysis of an old subordinator and an adverb under adjacency. This reanalysis involves a number of changes:

1. the prosodic/intonational structure changes ([ób] [wol] → [obwól])
2. a change in categorial status (C+XP → complex C)
3. a change in meaning for C: in case of *ob* forming *ob-wol, -schon, -gleich, -zwar*, ..., the meaning change is conditional → concessive

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[30] One could also argue for a 'push chain' scenario, in which *während* pushed *weil* out of its temporal use. In that case, however, *weil*'s shift from 'while' to 'because' would not be warranted, as *weil* could just as well have disappeared from the language.

Presumably, the prosodic changes are a result of the reanalysis of the XP adjacent to the head as a complex C head.[31] This structural reanalysis constitutes a categorial change, namely that of a phrase as a part of a complex head. Forming a complex item, the stress falls onto what is reanalysed as the head of the compound, by the right-hand head rule holding in word-formation.[32] In a first stage, perhaps represented by (19), material can still intervene between adverb and C. Crucially, all such cases in my corpus seem to be restricted to pronouns (subject as well as object, the latter as in (19)). Also the adverbs that incorporate into C are rather light (monosyllablic), so it seems warranted that all these elements, the pronouns and light adverbs, are in the position right-adjacent to C which Lenerz (1984) reserves for 'Wackernagel'-elements. Above, I said that this 'position' is probably not a syntactic position as it does not serve any syntactic function, and the elements it hosts are rather varied. However, even assuming PF-'cliticisation ' (or just positioning) to the right of C (a common phenomenon across languages), the presence of the pronoun between the light adverb and C indicates a (phrasal) boundary between C and the adverb at this stage, because it indicates that the adverb is still in this 'Wackernagel position'. If frequency indeed plays a role in triggering reanalysis, it has to be assumed that the cases of C-adverb adjacency outnumbered the cases of C-pronoun-adverb order.

(21)   a.   CP   or   CP $\Longrightarrow$

                 C   WP   ...   C   WP   ...
                 | /   \ | /   \
                 ob   ...   AdvP   ob   AdvP   ...
                            | |
                           wol   wol

        b.   CP

                 C   ...
                 |
               ob—wol
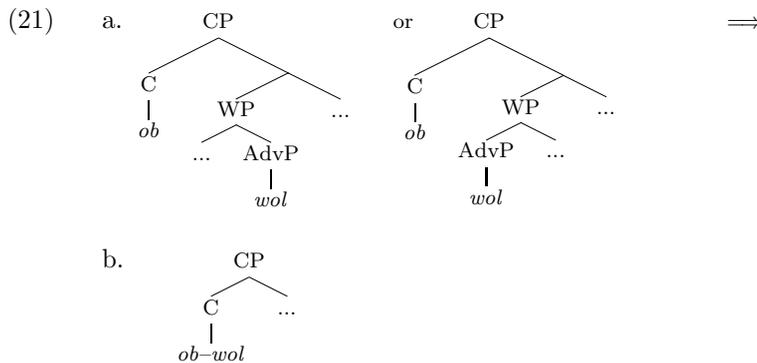
Some modal meaning component of the old adverb however 'lives on' in the newly formed complementiser, as the meaning of the new forms is different from the meaning of the old simplex complementiser. The whole process of reanalysis instantiated by type (ii) can be embedded into Longobardi's Inertia Theory again, assuming that the way to the reanalysis of the adverb together with the old complementiser must have been paved by a change in the interface

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[31]   Schrodt (1992) shows that reanalysis as subordinating conjunction goes together with a shift in word accent from the first part of the compound to the second. Although he shows this for a different set of complementisers (preposition + determiner, e.g. *seit.dem* 'since.that', *in.dessen* 'in.that' $\sim$ 'while'), he argues that the same happened in case of *ob* + adverb subordinators.

[32]   Cf. Williams (1981), Selkirk (1982), DiSciullo and Williams (1987).

properties of the adverb. Such a change is very likely to be a form of semantic bleaching or generalisation.[33] The modal meaning that the reanalysed adverbs contribute to the compounded subordinators has not much in common with the meaning of the independent adverbs which are still in use. So this reanalysis would be a case of a change in the syntactic structure triggered by a change in the interface properties of a lexical item.

(iii) New complementisers based on prepositions. Axel (2004) suggests that the prepositions in question may be undergoing a change in their selectional properties. She argues that they are beginning to take sentential (CP) instead of DP complements. The alternative to such an approach would be reanalysis of a former preposition as a complementiser, as proposed by (Lenerz 1984:103) for the preposition *während*:[34]

(22)

```
                        PP_i                        ⟹
             /           |            \
            P           NP_i           S_i
            |            |           /  |  \
        während       dessen_i   d-/w- COMP  S
        'during'      'that.GEN'   |    |    |
                                   ∅  dass_i  ...
                                      'that'
```

---
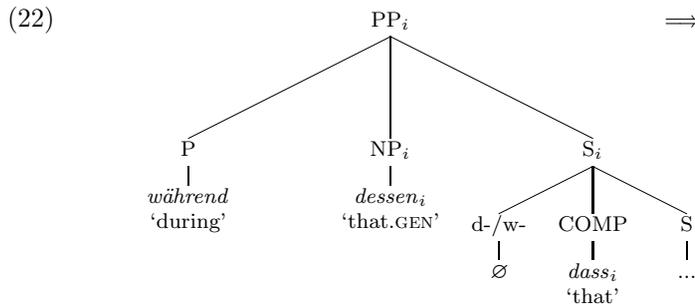
[33] However, there must have been some sort of diversification, because the independent adverbs are still in use.

[34] As is still visible from its morphology, the preposition *während* originates from a present participle. This reanalysis, Lenerz represents as follows:

(i)

```
            NP                  ⟹            PP
         /      \                         /      \
       Adj       N                       P        NP
      (=ptc)     |                       |       /   \
        |      Tages                  während  Det    N
    während es 'day.GEN'              'during'  |     |
   'during.GEN'                                des   Tages
                                             'the.GEN' 'day.GEN'
```

PP$_i$

P   S$_i$

∅

d-/w-   COMP   S

während (dessen)$_i$ ...
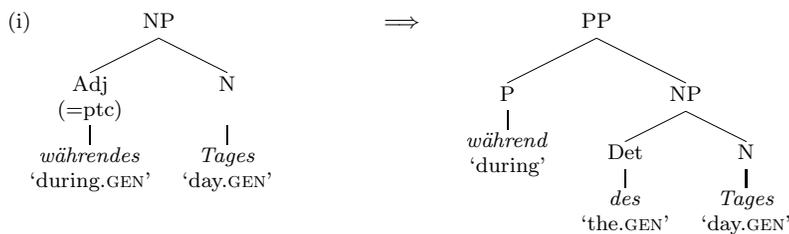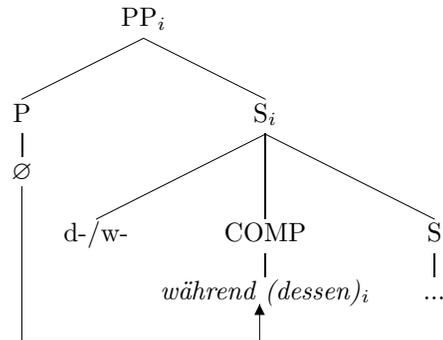
According to Schrodt (1992:269), the demonstrative element (dessen) disappears because it loses its function when the nominal embedding the subordinate clause disappeared. He argues that the original function of the P-NP[CP] construction had been to mark the 'semantic function' of CP. Given our representation of the left periphery in (17), we can understand this as follows.

(23)   a. $[_{PP}$ $[_P$ *während* $]$ $[_{DP}$ $[_D$ *des* $]$ $[_{NP}$ TIME.SPAN $[_{CP/ForceP}$ $\cdots$ $[_{FinP}$ $[_{Fin}$ *dass* $]$ $[_{TP}$ ... $]]]]]]$ $\Rightarrow$

        b. $[_{PP}$ $[_P$ *während* $]$ $[_{DP}$ $[_D$ *(dessen)* $]$ $[_{NP}$ ∅ $[_{CP/ForceP}$ $\cdots$ $[_{FinP}$ $[_{Fin}$ *(dass)* $]$ $[_{TP}$ ... $]]]]]]$ $\Rightarrow$

        c. $[_{PP}$ $[_P$ ∅ $]$ $[_{DP}$ $[_D$ ∅ $]$ $[_{NP}$ ∅ $[_{CP/ForceP}$ $\cdots$ $[_{FinP}$ $[_{Fin}$ *während* $]$ $[_{TP}$ ... $]]]]]]$ $\Rightarrow$

        d. $[_{CP/ForceP}$ $\cdots$ $[_{FinP}$ $[_{Fin}$ *während* $]$ $[_{TP}$ ... $]]]$

3.3.4. Verb placement

Next to the changes in the C-system, the establishment of sentence-final verb-placement in embedded clauses is regarded as one of the crucial developments in EMG syntax, diversifying embedded and unembedded contexts (Admoni 1967, Besch 1980). The texts in the corpus used here confirm the general tendency described in the literature that the possibilities for extraposition decrease and that the placement of the verbal complex containing the finite verb in the final position of the clause becomes the fixed order for embedded clauses.[35]

I will understand as "sentence-final placement of the finite verb" any non-extraposed word orders with the verb cluster in sentence-final position, that is, also those with 'verb raising' as in (24), where the finite verb is not final within the verb cluster ([aux ptc] instead of [ptc aux]):[36]

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[35] Cf. also Schildt (1976), Ebert (1980), Nyholm (1981).

[36] The absolute end-positioning of the finite verb in embedded clauses in German takes a little longer to develop, cf. Ebert (1981), although the authors in my corpus show a strong

(24)　Alßo solt　yhr euch　　　achten/ wie yhr seht in Christo/ der
　　　　thus shall you yourself esteem as　you see　in Christ　who
　　　　sich　　[**hat** entledigt] vnd ein knechtisch geperde an sich　　[[＿]
　　　　himself has　rid　　　and a　servile　　attitude on himself [*has*]
　　　　genommen]
　　　　taken
　　　　'Thus shall you behave like the Christ who rid himself (of wordly
　　　　things) and assumed a servile attitude.'

(Luther (1520; C3^b,14-16))

In the early 16th century, extraposition of DP arguments was still possible, but
this possibility is lost soon after:[37]

(25)　die weil　mich [e] ßo grawsam tiff　*sticht* [das urteil　deyns
　　　　the while me　　so cruelly　deep stinges the　verdict of.your
　　　　gerichts]
　　　　trial
　　　　'while/because the verdict of your trial stinges me so cruelly deep'

(26)　Alßo thut hie　der propheet, der　yn dießem psalme [e] *nennet* [sein
　　　　thus does here the prophet　who in this　　psalm　　names his
　　　　feind]
　　　　enemy
　　　　'Thus does here the prophet who in this psalm names his enemy'

We have argued in section 3.3.2 that the loss of subjunctive mood as one of
the means of realising the feature [−AST] of Force triggered major changes in
the inventory of C-elements. The presence of a lexical complementiser causes
the finite Verb in German to stay low. But this does not yet say anything
about how low or abaout the possibility for material to follow it. Given the
possibility of DP-argument extraposition until the first half of the EMG pe-
riod, something must have changed in the right periphery of embedded clauses
as well. The question now is how to assess the grammatical status of this
change – whether it really constitutes a parametric change or not. Admit-
tedly, sentence-final verb placement has been a possible variant all throughout
German language history.[38] Especially in embedded clauses, this form of the
right sentential bracket (RSB) has always been used more consistently than the

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　　tendency towards verb cluster-final positioning of the finite auxiliary. It seems to become
　　the strongly preferred option around 1600. As Ebert however shows, the relative order of
　　V and Aux is dependent on many factors like stress or the character of the main verb. By
　　non-extraposed I am referring to argument-DP-extraposition, not extraposition of CPs
　　and PPs.

[37] The examples in (25) (subject extraposed) and (26) (object extraposed) are taken
　　from Luthers "Die 7 Bußpsalmen" 169,25 and 159,18f, respectively; quoted after Lühr
　　(1985:46).

[38] Cf. e.g., Nyholm (1981), Lenerz (1984).

sentential bracket in main clauses (V2 with sentence-final placement of verbal particles or non-finite verbal material).

Especially Nyholm (1981:58ff) argues that sentence-final verb placement for embedded clauses is in fact very old and that the older tendency towards extraposition even of arguments (impossible in Modern German) was really a consequence of the medieval literature being closer to spoken language. With the invention of print and the often cited "shift from a syntax for the ear towards a syntax for the eye" (Betten 1987:161), this variant becomes the norm.

In the light of these considerations, it is possible that this shift in word order is rather a case of functional reanalysis/restriction of a stylistic variant than due to the resetting of a parameter. In that case, however, it remains unclear why arguments can no longer be extraposed in Modern German as they could until EMG, cf. (25) and (26).[39]

(27)   Present-day German
      a. *... weil   ich gegessen habe meine Suppe.
            because I   *eaten*   *have my*   *soup*
      b. *... weil   seine Suppe nicht gegessen hat mein Bruder.
            because his *soup*   *not*   *eaten*   *has my*   *brother*

As can be seen from figure 3.3, based on the data of my corpus, the possibility of extraposing DP arguments disappears around 1550. Extraposition of non-argumental material is also declining and hardly used in the texts in my corpus after 1600.[40]

Furthermore, if we look at the development of the full sentence frame in embedded clauses as discussed by Ebert (1980), we see that there is a rise in frequency in the full sentence frame in the 15th and 16th centuries, cf. (28).[41] However, the old observation that the tendency towards V-end/a full sentential bracket was rather strong also before is confirmed here as well – ca. 80% of the embedded clauses in Ebert's corpus have a full sentential bracket already in the 14th century. Still, there is a small jump in the frequency of sentences with a full sentence frame between the 15th and the 16th century.[42]

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[39] With the exception of stylistically very restricted cases such as train announcements (*Auf Gleis 1 erhält Einfahrt* **der ICE nach Frankfurt/Main Hauptbahnhof** 'On platform 1 will shortly arrive the high-speed train to Frankfurt/Main Hauptbahnhof') (cf. also Hinterhölzl (2004:152)) or death announcements in newspapers (*Nach langer und schwerer Krankheit ist von uns geschieden* **Rosemarie Haase** 'After long and painful illness has left us Rosemarie Haase').

[40] The data are based on counting the first ca. 850 words of every text. All numbers are given in appendix B.3.

[41] The percentages given in (28) are the average of the percentages given in Ebert's table 1, Ebert (1980:366f).

[42] The reason for the dip in the frequencies in the period of 1400-1450 is that Ebert is discussing only two texts for the period 1400-1450, as opposed to eight in the period from 1450-1500. These two texts happen to show much lower frequencies of full sentential brackets than the texts in the adjacent periods, so the dip is in fact an artifact of the corpus.
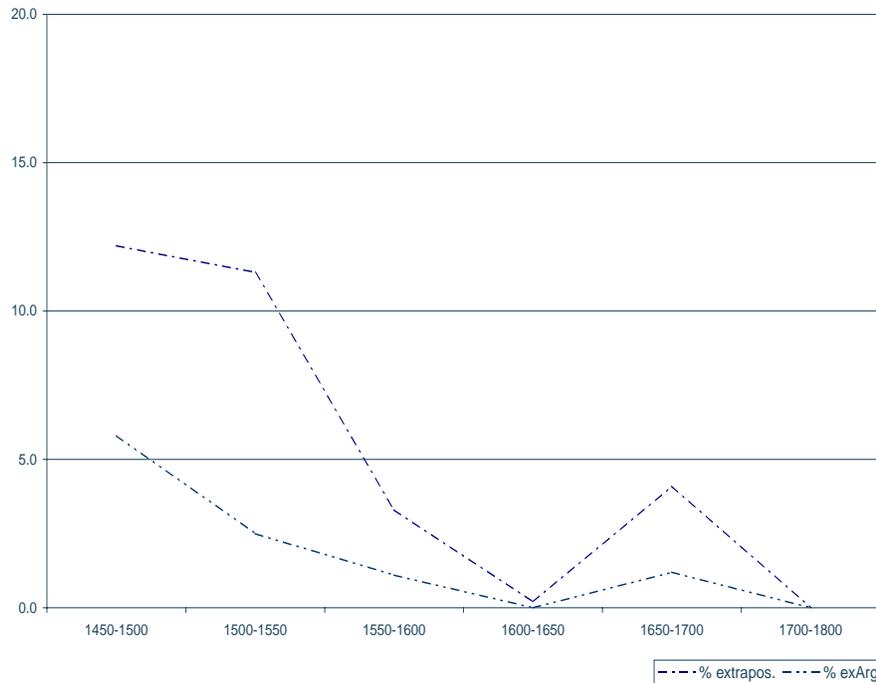
Figure 3.3.: The decline of extraposition in embedded clauses in my corpus

(28)

	%	total #
1300-1400	81.2	1458
1400-1450	63.4	706
1450-1500	82.3	1814
1500-1550	92.3	5560
1550-1600	91.6	3015

Hinterhölzl (2004) argues that this change is a reanalysis of a stylistic rule as a core rule of grammar which took place between OHG and MHG, as a consequence of the development of a determiner system from demonstrative pronouns. He claims that the discourse status/information-structural status of DP arguments in OHG was marked by position: backgrounded ("presupposed, prementioned or implied", (Hinterhölzl 2004:148)) material (pronouns and bare nouns) preceded the verb while focussed and 'heavy' material (e.g. modified DPs) followed, cf. (29).[43]

---

[43] Hinterhölzl's (2004:140) hypothesis (16). He bases this on the interaction of two prosodic rules interpreting syntactic structure:

(29)   C background V focus

In order to explain why German did not develop in the way English did, namely into a pure VO-language, Hinterhölzl (2004) argues that OHG was structurally similar to Yiddish, which has also both OV and VO features, in the syntactic correlates of information structure. In Yiddish, a syntactic distinction is made between contrastive and presentational (broad and narrow) foci. Contrastively focussed DPs move into SpecFocP, while presentational foci stay below in the scope of FocP. The change between OHG and MHG Hinterhölzl (2004) identifies is the reanalysis of a peripheral/stylistic rule that moves DPs into the preverbal SpecFocP position which for some reason became more and more frequently used until its frequency crossed the crucial threshold.[44]

(30)   [$_{\text{C}}$ background [$_{\text{FocP}}$ ContrastF [$_{\text{Foc}^{\circ}}$ V$_i$ [$_{\text{AgrP}}$ PresentationF [$_{\text{VP}}$ t$_i$]]]]]

Hinterhölzl's approach explains the development of the RSB and the loss of light predicate and DP-argument 'extraposition'. It has however often been noted that the full RSB was established earlier in embedded clauses than in main clauses. This can be accommodated in our analysis of the changes in the formal marking of subordination (Force[−AST]). Grammaticalising lexical complementisers which subsequently block verb movement is but one crucial step. Given the ambiguity of some frequent sentence-initial elements between adverbs and complementisers, sentence-final verb placement became *functionally* a crucial mark of clausal embedding in EMG. Lühr (1985:35) gives the following examples of Luther's translations of Luke 3,2 and John 8,36 with ambiguous sentence-initial elements which could both function as clause-linking adverbs in the first position of V2-clauses and as subordinating conjunctions with verb-last order:[45]

(i)   a.   *Interface Condition*
              The phonological phrase containing the focus (main accent) must be rightmost
              in its intonational phrase. (Hinterhölzl 2004:149, (29))
        b.   Focus constituents are mapped into the intonational phrase which contains the
              verb. (Hinterhölzl 2004:152, (33))

  Extraposition clashes with (ib), but information structure may require strict obedience
  to (ia). Hinterhölzl mentions that when the determiner system begins to develop in later
  OHG, it can be seen that NPs with determiners first show up in preverbal position, and
  he takes this to follow from (29). Although lacking information on the actual intonation
  of OHG, which makes it hard to distinguish focus extraposition (focus intonation) and af-
  terthoughts (falling/flat intonation), this observation is a good argument for Hinterhölzl's
  claims. Furthermore, afterthoughts with arguments would probably be expected to re-
  quire resumptive pronouns in the preverbal domain, cf. Modern German *Ich habe *(ihn)
  gar nicht gesehen, den Mann*'I have not seen him at all, the man'.

[44] (30) is taken from Hinterhölzl (2004:154), example (37).
[45] Lühr (1985) argues in fact for a direct correlation between the loss of subjunctive mood
      (*Konjunktiv*) as mark of embedded clauses and the fact that verb placement comes to be
      used to distinguish main and subordinate clauses.

(31)   a.   **da**   Hannas und Cayphas hohe priester waren, **da**   geschah
           when Annas and Caiphas high priests were then happened
           der befelh Gottis
           the order of.God
           '**when** Annas and Caiphas were high priests, (**then**) the word of
           God came true';
   b.   **szo** euch nu der son frey macht, **so**   seyt yhr recht frei
           if you now the son free makes then are you indeed free
           '**If** the Son therefore shall make you free, (**so**) you shall be free
           indeed'

Other examples can be found in my own corpus, where the placement of the verb distinguishes between the adverbial (32) and the complementiser use (33) of pronominal adverbs:

(32)   654. Fiel Feuer vom Himmel/ **darauff**   kam ein Sterbent/
       654 fell fire from sky there.after came a dying
       'In 654, fire fell from the sky. **Subsequently** started a period in which
       many died.'

<div align="right">(Schorer (1660; C1,20))</div>

(33)   **Darumb** ich aich nit allain von hŏrensagen/ bericht [__]   thuen
       there.fore I you not only from hearsay report [have] do
       wŏllen
       *want.*IPP
       '... because of which I did not want to report to you only based on
       hearsay'

<div align="right">(Herberstein (1557; 1r,25-26))</div>

Thus, verb placement becomes a new means of marking the dependency of clauses, next to the diversifications in the inventory of subordinators discussed above. Given the assumption that morphosyntactic features are represented as functional heads in syntax and given the common definition of parametric variation as variable properties of functional heads, the changes described here can be argued to be linked to parametric changes, despite their functional trigger.

3.3.5. The afinite construction as a reflex of the changes

Let us now return to the issue of the rise of the afinite construction. Our main hypothesis was that its development is the reflex of underlying changes in the grammar of EMG. In this section, I propose to interpret the changes just described as 'input conditions' for this development.

As observed by Demske-Neumann (1990), the afinite construction comes to disambiguate main and embedded clauses, corroborating the hypothesis of an implicational relation between the establishment of sentence-final verb placement as a mark of subordination and the emergence and spread of the afinite construction. In her discussion of the characteristics of the language of the earliest German newspapers (*Relation, Aviso*), Demske-Neumann (1990:246ff) gives special attention to the continuative relative clauses introduced by pronominal adverbs (*da/hier* 'there/here' + preposition as well as *deshalb, deswegen* 'because of that') as in (33) as opposed to V2 clauses with the same initial elements in topic position as in (32). As relative pronouns, these pronominal adverbs induce verb-end order. According to Demske-Neumann, it is this topological criterion that differentiates between the two uses. In her corpus, 84% of the continuative relative clauses are auxiliaryless. This means that the afinite construction can rely on the sentence-final verb placement marking the context where ellipsis is possible.

A further connection between the establishment of sentence-final verb placement and the emergence of the afinite construction can be established. As could be seen in figure 3.3, the possibility of extraposing DP arguments disappears around 1550. Extraposition of non-argumental material is also declining and hardly used in the texts in my corpus after 1600. If we compare the development of the afinite construction in embedded clauses with the development of the extraposition patterns, it becomes clear that the option to drop the finite auxiliary really 'takes off' and becomes very frequent when extraposition disappears.

A univariate variation analysis I carried out on the data in figure 3.3 (comparing the development of extraposition with the development of auxiliary drop in embedded clauses) supports this connection. It reveals that there is a statistically significant interaction effect between the two curves and time, $F(5,48)=15.897$, $p < .001$.[46] This means that over time, the rate of auxiliary drop interacts significantly with the rate of extraposition, which, given the actual development of the rates seen in figures 3.1 and 3.3, allows the interpretation that the full sentence frame is a precondition for the spread of the afinite construction.

As we have argued in the previous sections, sentence-final verb placement in turn depends on (i) changes in the left periphery concerning the realisation of [−AST] in subordinated ForceP and (ii) on a functional restriction of this word order.

Furthermore, as will be shown in chapter 4, the heads in the C-system, esp.

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[46] "Embedded clauses" here signifies the mean of the three types of embedded clauses we considered above. As a cautionary remark I would like to add that from a point of view of pure statistical methodology, the two developments could not actually be compared because different phenomena are counted. This 'creative' application of the variation analysis should be understood as showing that the temporal coincidence of the two phenomena (loss of extraposition and coincident steep increase in auxiliary drop) can also be demonstrated to interact mathematically.

Fin°, take part in the formal licensing of the auxiliary drop that characterises the afinite construction. A more refined inventory of subordinators facilitates the recovery of the features of the finite auxiliary. The new temporal complementisers for example with clearly differentiated features (e.g. *bis* 'until', *nachdem* 'after', *bevor* 'before', ...) may be argued to make the recovery of tense features much easier. Furthermore, more and deeper embedding becomes possible by the reformed complementiser system. As the auxiliary drop is now licensed in embedded clauses, a rise in frequency is expected also in the absolute numbers.

Summing up, the changes described in the previous sections can be argued to be input conditions to the emergence of the afinite construction.

3.4. The decline of the afinite construction

In this section, I will discuss the reasons for the rapid drop in the frequencies of the afinite construction after 1700. As mentioned in section 3.2, I assume that causal forces different from those driving the rise and spread have to be postulated for this new process of change.

3.4.1. Reversing language change processes in the literature

Reversing language change does not seem to be a frequently occurring phenomenon nor have they been often investigated. Given the acquisition-related theories of syntactic change in the P&P-framework, the most self-evident assumption is of course that the new change is caused by a new parametric change in the underlying grammar. Such an approach is taken by e.g. Tanaka (2000) and Pancheva (2003).

According to Tanaka (2000), transitive expletive constructions (TECs), which emerge in Late Middle English in the second half of the 14th century, disappear merely 200 years later in Early Modern English due to a change in clause structure. He attributes the change to the loss of an extra subject position because of the conflation of originally two I-related heads, Agr and T, into one, motivated by the loss of verbal inflectional morphology in Early Modern English around 1500.

(34)
```
        AgrP                              ⇒              IP
       /    \                                           /  \
   Spec     Agr'                                    Spec    I'
           /    \                                          /  \
       Agr°      TP                                      I°    VP
               /    \
           Spec     T'
                   /  \
                 T°    VP
```
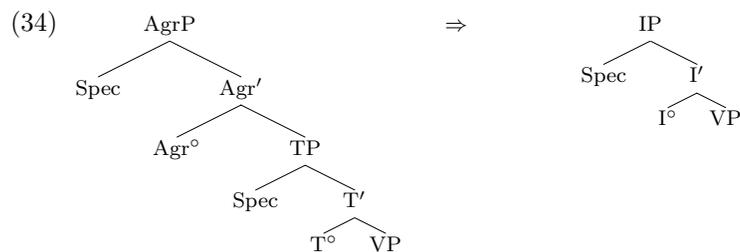
The underlying change triggering the loss of the TECs is therefore a parametric one, given a definition of parametric variation in terms of the number of functional projections in a language. The change that gave rise to the TECs in the history of English, Tanaka identifies as the loss of a formal feature [clitic] on the higher inflectional head Agr and the establishment of an EPP feature there. This leads to a uniform preverbal placement of both nominal and pronominal subjects and enabled the merger of an expletive in SpecAgrP because of this new EPP-feature.

Similarly, in her discussion of the development of cliticisation patterns in the history of Bulgarian, Pancheva (2003) argues for two separate parametric changes underlying the rise and fall of second-position cliticisation in the history of Bulgarian, namely a change from post-verbal to second-position cliticisation in the 9th-13th century on the one hand and then a change from second-position to the modern pre-verbal cliticisation since the 13th century on the other.

Kroch (2001:fn. 14) furthermore refers to an unpublished paper by Susan Garrett, who describes the reversal of a syntactic change in the history of Spanish. In the early 13th century, the use of 'any' words (*alguno*) comes up in Negative Concord contexts, replacing the usual 'no' words (*ninguno*). Until 1600, the use is modestly, but steadily increasing, but after 1600, it declines again until 'any' words are no longer possible in these contexts in modern Spanish.

3.4.2. What is plausible?

In the case of the disappearance of the afinite constructions, an argument for a parametric change cannot be made. The reasons are the following:

- The construction falls out of use within only a few decades. This very untypical for parametric changes which by definition take several generations to gather momentum and spread.
- The construction does not fall out of use entirely. Auxiliary drop in embedded clauses with at least the present perfect auxiliaries remains possible at a comparatively high level – around 45 %.[47]
- The context in which the afinite construction (only of perfect auxiliaries) remains possible becomes soon restricted to elevated or poetic style.[48]

Having concluded that an argument for a new parametric change underlying this new process cannot be made, there are two ways to go. One would be

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[47] Past perfect *haben* and *sein* and *sein* in stative passive drop to about 5 %. Afinite constructions with *werden* and the non-parallel coordination ellipses disappear entirely, copulae are dropped only around 1.5 % of all possible cases.

[48] "Indessen können die Hülfswörter *haben* und *sein*, doch nur, wenn sie hinten stehen sollten, und die Deutlichkeit nicht zu sehr leidet, in der höhern und dichterischen Schreibart weggelassen werden. werden " 'However, the auxiliaries *have* and *be* can be omitted in higher and poetic style, but only if they would appear sentence-finally and as long as the clarity does not suffer.' (Adelung 1782:396).

to argue that the fact that the replacement rate of the afinite construction never reaches 100% and even drops again after a while has to do with its being a possible but not necessary consequence of the changes described. Its development suggests that for a change to 'catch on', that is, to affect the whole population, a certain percentage of the population have to have acquired the new form for the probability of being acquired by (almost) all speakers in one of the following generations to be high enough. This would be a likely scenario under a grammar competition approach as proposed by Kroch because under this approach, a new form spreads only if its probability to appear in the output of an individual grammar is higher than that of the competing form, e.g. conditioned by sociolinguistic factors.

Although this is a promising idea, it cannot account for the speed at which the afinite construction (in its extreme baroque form) disappears from general use within one generation and neither for the survival of only present perfect auxiliary drop in a stylistic niche. Especially in the light of the last point we may wonder if stylistic reasons could actually play a role in the process of the disappearance of the afinite construction. I would like to draw the attention to some more observations.

- The data in tables (1) and (2) in 3.2 show that the auxiliary-less constructions never come to fully replace the constructions with overt auxiliaries. Instead, the curves level out at just under 70% in case of relative and adverbial clauses, that is, the construction remains optional.
- It has often been observed that the afinite construction is especially frequent in text types that are less close to spoken language, like e.g. the highly formal chancery texts.

Thus, there is the possibility of a stylistic change to have caused the disappearance of auxiliary drop from written language use. A third possibility, a reversal of the parameter change that helped to bring up the afinite construction, we can reject out of hand. The change argued in 3.3.2 to underlie its emergence is still effective in Modern German. The complementiser system and the verb placement patterns in embedded clauses are still the same. Therefore, we will explore the explanation in terms of stylistic changes in more detail, although we cannot exclude the population-dynamic explanation mentioned first.

3.4.3. An account of the decline

The approach I will take is following a similar line of reasoning as Admoni (1967), who observed an increase in complexity in the construal of complex sentences from 1300 until 1800, and a decrease after that. In particular, he looked at the average length (as well as the minimal and maximal lengths) of 'elementary clauses' ("Elemantarsätze"), the number of embedded clauses as compared to main clauses, and the depth of embeddings, comparing the number

of embedded clauses of degree one with the number of all embedded clauses.[49] With respect to these figures, he observed great variation within texts in the 14th and 15th centuries, a certain stabilisation at a moderate level of complexity in the 16th century and an extraordinary increase in the following century. After 1700, the complexity decreases 'dramatically' ("aufs entschiedenste", p. 169). I analysed the first about 850 words of all the texts in my corpus w.r.t. two of Admoni's coefficients, the coefficient of embedded clauses and the coefficient of embedded clauses of degree one. A high frequency of main clauses and a high frequency of embedded clauses of degree one are indicative of a lower complexity of textual construal.

These are the results from my corpus analysis, reflecting very closely Admoni's findings:[50]

(35)

	1450-1500	1500-1550	1550-1600	1600-1650	1650-1700	1700-1800
embedded clauses	46.3	54.4	55.6	65.4	50.5	47.3
emb. cls. degree-1	74.0	74.9	65.5	58.0	71.6	79.7

As can be seen, the complexity is steadily increasing until 1650 and decreasing again thereafter. The number of embedded clauses relative to main clauses is reaching 65.4% between 1600 and 1650 and goes back to 47.3 % between 1700 and 1800. At the same time, the depth of embedding is increasing until 1650 and decreasing after that. Figure 3.4, based on (35), makes clear that there must be a correlation between these two developments, as both are linked to the complexity of sentences. It furthermore shows a conspicuous parallelism between the sentence complexity on the one hand and the rise and fall of the afinite construction on the other.[51]

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[49] "Embedded clause of degree one" means that the clause is embedded directly under an independent clause, not within another embedded clause.

[50] The abbreviations stand for emb. = ratio embedded clauses vs. main clauses, emb.-1 = ratio embedded clauses of degree 1 vs. all embedded clauses. Cf. appendix B.4 for the details of the counts.

[51] Gertjan Postma (p.c.) objects that this correlation may be spurious, as of course, embedded clauses without auxiliary (afinite constructions) were included in the counts. According to him, a correlation of sentence complexity and the rise and fall of the afinite construction can only be established if the sentences without auxiliaries are not counted in the computation of the ratio of main and embedded clauses and of embedded clauses of degree one and deeper embeddings. Of course, especially in those periods where the afinite construction is especially frequent (between 1550 and 1650), the outcome would be very different, because almost 70% of the embedded clauses (frequency of the afinite construction) would not be considered and it would be very likely that main clauses would come out as much more frequent than embedded clauses. Postma's objection can be rejected, however. I have argued in chapter 2 and will argue more extensively in chapter 4 that embedded clauses in the afinite construction have to be counted as full-fledged finite embedded clauses because they have a finite complementiser as well as an overt subject. I therefore see no reason not to count them just as regular embedded clauses on a par with embedded clauses with overt auxiliaries.

Figure 3.4.: The development of sentence complexity

The data raised on the basis of my corpus therefore confirm the trend described by Admoni (1967). Following him, they can be interpreted as shifts in closeness to spoken language. However, I would not go as far as Admoni to link the complexity of sentence construal to the complexity of content ("Denkinhalte") captured in the texts in question. Still, a return to a less baroque language closer to spoken language can be read from the data. The interpretation I would like to suggest now (implicitly given in Admoni (1967) as well) is that the afinite construction, being less close to spoken language, disappears when the general writing style assumes more features of 'natural' language again, that is, closer to spoken language.

This interpretation is supported by the univariate variation analysis I carried out on the data (cf. appendix B.4). I compared the development of the two complexity coefficients together and separately with the development of the rate of auxiliary drop in embedded clauses. I found a statistically significant interaction effect between the curves, $F(2,72)=4.129$, $p < .001$.[52]

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[52] The same methodological caveat as in footnote 46 has to be stated here as well – normally one could not compare the rates of two different phenomena, here, the rate of (deeper)

Of course, we now have to deal with a possible objection. On the basis of figure 3.4, it may be argued that perhaps also the *emergence* of the afinite construction was just the consequence of a stylistic change. Just as we see a correlation between the disappearance and the decrease in sentential complexity in figure 3.4, a correlation between the increase in complexity and the spread of the afinite construction may be read out of it as well.

While the influence of stylistic changes on the rapid spread of the afinite construction is not unlikely – even more so as it is especially found in texts with a more complex, less 'natural' language – this cannot be the only reason for the emergence of the construction. It is conspicuous that it emerges only when the other changes described had taken place. An explanation along the lines of Hinterhölzl (2004) is possible, namely that the afinite construction is a peripheral rule which has a certain stylistic effect. This may be a reason for the fact that the construction never fully replaces embedded clauses with overt auxiliaries. In the next chapter, I will argue that pragmatic factors determine the application of the deletion rule. But even stylistic phenomena have to be licensed by the grammar of a language. This follows from our assumptions about the character of human language: any variant in linguistic output has to be licensed by the grammar that generated the output and cannot contradict UG.[53]

Furthermore, also the increasing complexity of sentence structures – of course a stylistic choice – is only rendered possible by the parametric changes described above: with a more refined complementiser system and a clear formal separation of main and embedded clauses, many more and more complex dependencies could be expressed. So in fact, it is rather the opposite scenario that seems likely – it is not the increasing text complexity that facilitates the auxiliary drop, but the possibility of dropping the auxiliary, strengthened by the greater differentiation of main and embedded clauses, which facilitates embedding even further. In chapter 4, I will discuss in how far the afinite construction can be argued to be developing into an additional means to mark embedding.

3.5. Conclusion

This chapter addressed the time course of the development of the afinite construction. The analysis of the corpus in section 3.2 revealed that after its emergence between 1450 and 1500, the construction becomes steadily more frequent but drops out of use rather abruptly after 1700. It was furthermore

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embedding and the rate of auxiliary drop. Again, the rates of auxiliary drop in the three types of embedded clauses have been aggregated.

[53] "Nun ist aber Stil nichts anderes als die individuelle Anwendung der dem Sprecher von der Sprache gebotenen Möglichkeiten..." 'Style is nothing but the individual application of the possibilities the language provides the speaker with', Fleischmann (1973:45). In the terminology of generative grammar, this is to say that the E-language has some room for variation within the boundaries of the I-language.

shown that the afinite construction never fully replaces constructions with overt auxiliaries.

The rise and spread of the afinite construction until 1650-1700 turned out to describe the S-shaped trajectory familiar from many syntactic changes discussed in the literature (Kroch 1989). The decline however proceeded very rapidly and not evenly for all auxiliary types. Such a behavior is rather untypical of parametric syntactic changes, at least comparable cases are very hard to find in the literature.

In line with standard theories of syntactic change, I opted for treating the two processes, the rise on the one hand and the decline on the other, as two separate phenomena. For the rise and spread, which follows the typical time course of syntactic changes, I argued that it is the reflex of an underlying parametric change in the formal marking of embedded clauses, namely the loss of subjunctive mood as a realisation of [−AST] on Force marking subordination. Specifically, this change induced changes in the complementiser system and in the verb placement, which were argued to have made the emergence of the afinite construction possible. However, this emergence was not a necessary, but only a possible consequence of these changes. They were argued to have set the environment in which the auxiliary ellipsis was licensed and were therefore necessary input conditions. The ellipsis itself however has to be regarded as a possible choice within the grammar of the language, 'peripheral' in the sense of Hinterhölzl (2004), that is, as a rule of narrow syntax, but triggered by peripheral features. In the next chapter, I will discuss this in more detail.

The reversal of this development, however, cannot be attributed to a reversal of the parametric change(s) which brought about the afinite construction. Rather, the system largely remains in Modern German as it developed in the early 16$^{\text{th}}$ century. It could be shown that the development of the afinite construction goes along with stylistic changes, that is, changes in language use. As a consequence of a more refined complementiser system and a clear distinction between main and embedded clauses, embedding became much easier. Especially chancery style, but also written language in general made extended use of these new possibilities, leading to a strong increase in text complexity between 1500 and 1650. The decline of the afinite construction (after 1700) sets in soon after the text complexity is decreasing again after 1650.

The rise of the afinite construction is also running parallel to an increase of text complexity between 1550 and 1650, and a correlation is likely. However, it was argued that the construction could only emerge because of parametric changes in the grammar which created the necessary licensing conditions. While the underlying parametric changes in the grammar did not reverse later, the afinite construction disappeared when written language use turned back to a more 'natural' style, closer to spoken language.

Licensing conditions and occurrence restrictions

[C]omplementizers and the deletion of temporal aux-iliaries are to a considerable extent the very marks of subordination.   (Andersson 1975:130)

4.1. Introduction

We have discussed two varieties of finite auxiliary drop in EMG. First, a finite auxiliary can be missing from an uncoordinated embedded clause, which is known as the *afinite construction*. The second type that we addressed is the non-parallel ellipsis of auxiliaries from coordinations, that is, where the overt and the targeted auxiliary differ in person/number, tense or even lexical item (*have* vs. *be*). We have argued in sections 2.4.1 and 2.5 that both these cases are indeed ellipses and not e.g. freely used nonfinite predicates. Furthermore, it was made clear that the inhomogeneous auxiliary ellipses in coordinations could not be licensed under parallelism, at least not directly. As we have established that we are actually dealing with ellipsis in case of the afinite construction, we have to answer the question of how the missing element is recovered, what are the licensing conditions on the ellipsis.

The licensing of the ellipsis of the finite auxiliaries has two dimensions, a formal and a pragmatic one. On the formal side, we have to account for the fact that the ellipsis is possible at all (section 4.2). Auxiliaries being functional elements, as argued in chapter 1, they express information which has to be recovered somehow in case its exponent, the auxiliary, does not receive a phonological realisation. On the other hand, we saw in chapter 3 that even when the ellipsis is very frequent, it never reaches 100%, in fact, far from that.

It will be argued in section 4.3 that this is not just uncompleted language change, but can receive a pragmatic explanation.

4.2. Syntactic licensing conditions

The question of licensing auxiliary ellipsis encompasses two questions: (i) Why is the ellipsis possible and (ii) How is identified? The formal perspective on the issue only deals with the second question. Before we turn to the licensing mechanisms of EMG auxiliary drop, let us look at two previous approaches to the empirically related phenomenon of Swedish *ha*-omission.

4.2.1. Previous approaches to the licensing of Germanic auxiliary drop

As already discussed in chapter 2, there are yet no formal accounts of the licensing conditions on EMG auxiliary drop itself. However, there are some publications on the very similar phenomenon of *ha*-omission in Swedish embedded clauses, and Den Besten's (1977) attempt at a unified solution for both the archaic German and Modern Swedish auxiliary ellipses.[1] I will first present his account and then a more recent approach to Swedish *ha*-omission, given by Julien (2002).

4.2.1.1 Den Besten (1977)

To the best of my knowledge, the first to have attempted an account of the ellipsis of finite auxiliaries in (archaic/poetic) German and Swedish in a generative framework was Den Besten (1977)[2], although he is not the first generative linguist to have *addressed* the issue of Swedish *ha*-omission. Andersson (1975) mentions it several times, but without saying more than:

> "In case of the deletion of temporal auxiliaries, it seems that we have to include a condition saying that this rule may only apply in syntactically subordinate clauses. If some rational principle can be found (either in the function of these rules or in the form of a general restriction on transformations) that determines the domain of these rules, these conditions can be taken away. As long as no such principles are found, these conditions must be kept."

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[1] As mentioned above, the afinite construction as it exists in EMG disappears in older Modern German. The ellipsis of the perfect auxiliary (and rarely also of the copula and *sein* in passives) remains possible for a little longer, however restricted to elevated style. In the present-day language, as also discussed by Den Besten, it has a strongly poetic or archaic connotation and is not used productively, though it is recognisable by native speakers.

[2] Focussing on synchronic grammar, he does not mention EMG itself, only that the auxiliary drop rule for German is 'archaic', den Besten (1977:19). The page numbers in what follows refer to the republished version of this paper in the 1989 PhD thesis.

Andersson (1975:142)

Den Besten's approach constitutes such a restriction on transformations and shows that the assumption of a separate category of transformations only applying in embedded clauses is not necessary.

Den Besten's paper is mainly concerned with the definition of root transformations and the question of whether a separate class of anti-root transformations has to be postulated in order to account for (apparent) anti-root phenomena. Instances of such phenomena are e.g. the auxiliary ellipsis in German and Swedish or *er-er* contraction in Dutch and other deletive rules which only apply in embedded clauses.

The crucial observation is that verb movement (V2) bleeds auxiliary deletion, since otherwise it could apply in main clauses as well. This is captured in den Besten's Counter-Deletive Ordering Principle (CDOP) (den Besten (1977:61)):

(1)   *Counterdeletive Ordering Principle*
       Nondeletive rules precede deletive rules.

But the definition of applicational domains for transformations by Williams (1974), which den Besten uses in order to account for root phenomena such as V2 ('verb preposing') implies that auxiliary drop as a VP-rule should be able to apply in any VP, be it in a root or in an embedded clause. Den Besten's (1977:77) crucial amendment to Williams' definition of applicational domains is (2d), which implies that a moved auxiliary in COMP in main clauses cannot be affected by the deletion rule. This is because if R_i is a deletion rule referring to a constant C_k, the auxiliary, and it is applied to a phrase X=CP containing C_k, there will be a phrase Y=VP, where Y is properly contained by X and Y contains C_k. That is, CP properly contains VP, and VP (by assumption) contains the auxiliary, and therefore the Condition on Applicational Domains in (2) accounts for the bleeding effect of V2.

(2)   *Condition on Applicational Domains*
       A rule R_i cannot apply to a phrase X unless the structural index of R_i contains a constant C_k and the C_k analyzed by R_i is such that
       a. C_k is properly contained in X and
       b.   there is no phrase Y such that X properly contains Y and Y contains C_k and
       c. C_k is satisfied by a factor changed by the rule and
       d. C_k could be base-generated under X.

(3)   *Definition of X-Domain Rule*
       A rule R_i is a X-domain rule *iff* there is a derivation that is not blocked such that R_i has been applied to X.

Although he does not discuss how the ellipsis of the finite auxiliaries is *licensed/recovered* – an issue that did not play a big role in transformational grammar where rules could freely manipulate strings of terminal elements –

Den Besten's approach gives a good description of the conditions under which a finite auxiliary can be dropped. Interpreted in a certain way, it furthermore contains the tacit assumption – because of the CDOP – that the auxiliary is deleted post-syntactically, at least post-cyclically. That means that it is not really absent from the structure, and therefore a licensing issue will not arise.

4.2.1.2 Julien (2002)

Like EMG, modern Swedish allows the ellipsis of the perfect auxiliary (*ha*) in embedded clauses. A comparison of the two languages suggests itself as it has been claimed by Johannisson (1945; 1960) that the Swedish construction was borrowed from German in the end of the 17th century. The examples in (4)-(6) show the omission of *ha* in a complement clause, an adverbial clause and a relative clause, respectively.[3]

(4)   Vi anser   att hon (har) blivit illa   behandlad.
        we consider that she has   been badly treated

(5)   Jag mötte henne när   hon (hade) flyttat till Sundsvall.
        I   met   her   when she had   moved to Sundsvall

(6)   Vi talade med dom som (hade) kommit.
        we talked with those that had   come

Julien's proposal is that *ha* need not be spelled out unless it has what she calls a unique function.[4] It has such a unique function if some of its "morphological" components (functional heads *ha* spells out) expresses e.g. a temporal relation independent of the specifications of the embedding clause. This will be substantiated presently. So, if it does not have such a unique function, it can be dropped as long as it is *identified*. Such identification, Julien argues, is achieved either by spelling out *ha* or an element in its specifier, that is, the subject or the relative complementiser *som* in subject relatives, cf. (6).[5] *Som* can identify omitted *ha* because Julien assumes with Holmberg (2000) that *som* is in reality an expletive which occupies the subject position.

   Evidence for the necessity of an overt subject identifying *ha* if it is omitted comes from (i) cases like (7) where there is only a subject trace (not sufficient for licensing), (ii) constructions like (8)-(10) in which the subject trace is spelled out by a resumptive pronoun, and (iii) evidence from the Finland Swedish variety, which lacks the that-*t* effect (that is, resumptive pronouns are normally

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[3] All Swedish examples in this section are taken from Julien (2002).

[4] "Concerning the optionality of embedded, finite ha, I argued that [...] a finite *ha* in an embedded clause need not be spelled out if none of its morphological components have a unique function." Julien (2002:94).

[5] Note that in Swedish, the relative complementiser *som* is normally optional as well. As Julien notes in an unpublished older version of her paper, however, *som*-omission is only compatible with *ha*-omission in object relatives, where there is an overt subject. In subject relatives, *som* would be the only licenser of elliptic *ha*.

optional), but still requires a resumptive pronoun in case of *ha*-omission, cf. (11).

(7)   Kalle$_i$ kan jag garantera C t$_i$ *(har) klarat   sig.
        Kalle can I   guarantee   has   managed REFL
        'As for Kalle, I can guarantee he has made it.'

(8)   Kalle$_i$ kan jag garantera att *(han$_i$) (har) klarat   sig.
        Kalle can I   guarantee that he   has   managed REFL
        'As for Kalle, I can guarantee that he has made it.'

(9)   Detta är student-en$_i$ som jag undrar vad   *(han$_i$) (har) läst.
        *this   is student.*DEF *that I   wonder what he   has   read.*
        'This is the student about whom I wonder what he has read.'

(10)   Anna$_i$ undrar jag vad   *(hon$_i$) (har) sagt.
        Anna wonder I   what she   has   said
        'As for Anna, I wonder what she has said.'

(11)   Kalle$_i$ kan jag garantera att   t$_i$ *(har) klarat   sig.
        Kalle can I   guarantee that   has   managed REFL
        'As for Kalle, I can guarantee that he has made it.'

So, an overt subject in the specifier of *ha* makes the drop of the finite auxiliary possible, assuring identification. According to Julien, the tense of *ha* can also be recovered from the environment, more specifically, by the embedding clause. Again, if *ha* has a unique temporal function, it cannot be dropped. A case in which the tense of the embedded auxiliary can be identified with the tense of the matrix verb is the following:

(12)   a.   Hon berättade(T_1) att   hon hade(T_2) rest(T_3) mycket.
              she told   that she had   travelled much
        b. T_1=past: S after E_1
              T_2=past: S after R
              T_3=past: R after E_2
        c. E_2 E_1,R   S
              ├────────────┼──────────────┼───────→ T
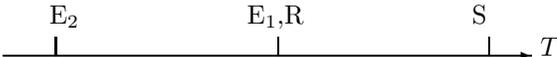
As can be seen in (12), because R and E_1 coincide, T_1 is equivalent to T_2, so T_2, expressed on the embedded auxiliary is really superfluous. Given that *ha* is furthermore identified by an overt subject, it is licensed for both tense and φ-features. In (13), the tense of the main verb, T_1, cannot be identified with the tense of *ha*, T_2, .

(13)   a.   Hon berättade(T_1) just att   hon i går   *(hade)(T_2) åkt(T_3)
              she told   just that she yesterday had   gone
              till USA för tio år   sedan.
              to   USA for ten years ago
              'She just told (e.g., us) that yesterday, she had gone to the USA

        ten years ago.'

b. T_1=past: S after E_1; E_1='just'
        T_2=past: E_1 after R; R='yesterday'
        T_3=past: R after E_2; E_2='ten years ago'

c. E_2 R E_1 S

      |————————————|——|——|——————→ T
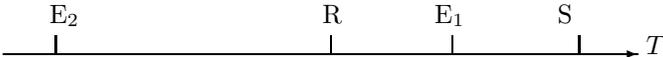
In (13), forced by the adverb *yesterday*, the time interval expressed by the tense of *ha* is one day before the event time expressed by the tense of the matrix verb. Therefore the two cannot be identified as in (12), and the tense of *ha* would not be recovered in case of omission.

There are a few problems with Julien's account of the ellipsis of finite *ha* in embedded clauses in Swedish.

In chapter 1, we already discussed Julien's assumptions about the structure of the present and past perfect, which also underlie Julien (2002).[6] The next problem has to do with the identification of *ha*'s φ-features by "an element in its specifier", namely the subject. Swedish is an asymmetric verb-second language, that is, it is verb-second in main clauses, but not in embedded clauses. As can be seen from (13), adverbs (*i går* in this case) can intervene between the subject (perhaps still in SpecFinP as Julien assumes for main clauses, but perhaps lower, cf. Zwart (1997)) and the finite auxiliary.

Given that Julien adopts Cinque's theory of adverb placement, this would indicate that the subject is in the specifier of a different, higher, projection than *ha*. If it had moved there from the specifier of *ha*, it would mean that a trace can in fact license empty *ha*, contrary to Julien's claim based on the data reported in (7)-(11) above.[7] This locality requirement is interesting and may point to a solution along the following lines: an overt subject (not just its features) has to identify omitted *ha within the same phase* (Chomsky 2000; 2001). Phases are defined as 'propositional units' with "a degree of phonetic independence" Chomsky (2001:12). This justifies the assumption that they constitute the active part of a derivation and are the units that, once their share of the derivation is completed, are sent off to Spell-Out together. The requirement on identifying Swedish *ha*-omission may thus be that an overt subject be present for identification in the same bit of structure sent to PF as the 'gap'. This seems a reasonable assumption given that the optionality of *ha* is a question of Spell-Out as well, cf. Julien (2002).

A third problem with Julien's approach is the explanation for the identification of the temporal information expressed by *ha*. It is known that Swedish is a Sequence of Tense language, that is, the tense in embedded clauses is influenced by the tense in the matrix clause. However, a direct dependency can

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[6] Cf. Julien (2002:70).
[7] Furthermore, recall from chapter 1, (37b), that Julien assumes that the subject is in SpecFinP, while the auxiliary is in one of the TPs. That means that the subject is not in the specifier of the same phrase as the auxiliary anyway.

only exist in case of argument clauses, not in relative or adjunct clauses. Let me digress briefly to discuss the anchoring conditions on tenses as developed in Enç (1987).

Based in the GB framework, Enç assumes that tenses are referential expressions (denoting intervals) that must be licensed in a way similar to nominal referential expressions. This licensing, or identification, Enç calls 'anchoring'.

(14)   *The Anchoring Principle*
        Each tense must be anchored.

"Past" or "present" are relational notions that must somehow be semantically specified. As there is an often observed close connection between Comp and Infl, it is plausible to locate the specifier of tense in C.[8] Enç's assumption is that C optionally carries a temporal index, in which case it serves as the specifier of tense and yields an interval as its semantic value. The denotations of "past" and "present" then come out as follows:

(15)   a.   Where α is a past tense, β is a Comp with a temporal index, and β is the *local* Comp of α, $\parallel \alpha \parallel$ is an interval T such that every moment t in T precedes every moment t' in $\parallel \beta \parallel$
        b.   Where α is a present tense, β is a Comp with a temporal index, and β is the local Comp of α, $\parallel \alpha \parallel$ is an interval T such that $T = \parallel \beta \parallel$
        c.   A Comp β is the local Comp of a tense α iff β governs α.

Following the GB notions, temporal specification proceeds under government. Therefore, only a local Comp can function as a specifier of tense because Comp governs IP. A non-local Comp could not serve as tense-anchor because the main verb act as a closer governor.

(16) α governs β if and only if
        a. $\alpha = \mathrm{X}°$,
        b. α c-commands β and if γ c-commands β then γ either c-commands α or α is c-commanded by β.

                                                        Chomsky (1981:163)

(17) spells out how the anchoring of tenses works.

(17)   *Anchoring Conditions*
        a.   Tense is anchored if it is bound in its governing category, or if its local Comp is anchored. Otherwise, it is unanchored.
        b.   If Comp has a governing category, it is anchored if and only if it is bound within its governing category.

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[8] This close relationship between C and I is assumed because the selection of particular complementisers depends on whether I is tensed or not, cf. e.g. Rizzi (1997).

    c.   If Comp does not have a governing category, it is anchored if and
          only if it denotes the speech time.

<div align="right">Enç (1987:643)</div>

The term governing category is defined as in (18).[9]

(18)   *Governing Category*
       β is a governing category for α if and only if β is the minimal category
       containing α, a governor of α, and a SUBJECT accessible to α.
       (Subject: NP in Spec,β or AGR/I)

<div align="right">(Chomsky 1981:211)</div>

By (17a), the tense of matrix clauses is governed by Comp, but as matrix
Comp is not in the domain of any subject, tense is not anchored by binding,
because it has no governing category, but has to be linked to the speech time.
Tense in complement clause can be anchored in two ways: (i) by anchoring the
embedded Comp through binding by the matrix verb and therefore the matrix
tense and (ii) by binding the embedded tense by the matrix tense directly
(because the complement clause has a governing category). The first option
leads to the so-called *shifted* reading; in a sentence like (19a), this leads to the
reading (19b). The second option produces the so-called *simultaneous* reading
(19c). So, a sequence of tense effect in complement clauses is a consequence
of the second possibility, but not a necessary one, as could be seen in example
(13) from Swedish, where the adverbs force a shifted reading.

(19)   a.   John heard that Mary was pregnant.
        b.   Mary was pregnant at a time prior to John's hearing about it.
        c.   Mary was pregnant when John came to hear about it.

Now, in relative clauses, there can be no binding and therefore no tense iden-
tification/anchoring by the matrix clause, because the NP heading the relative
clause is intervening between the matrix verb and the Comp of the relative
clause. Therefore, the tense of a relative clause is anchored through its Comp.
Equally, in adverbial clauses, the tense is independent of matrix tense, because
adjunct clauses are not in the scope of the matrix subject. Therefore, the
clause would not have a governing category and the tense of the clause has to

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[9] Enç in fact proposes to use the concept of a Complete Functional Complex (Chomsky
1986) instead of Governing Category, because according to her, the traditional defini-
tion of governing category makes the wrong predictions for tenses, because it allows the
governing category to be a domain where the subject c-commands that expression but
not the governor of the expression (subject does not have to be accessible to the gover-
nor). For tense, a domain is needed where the governor of tense (Comp) is in the scope
of the subject. A CFC is defined as the maximal projection of a governor with all its
grammatical functions satisfied inside this maximal projection. In this sense, CP is a
CFC.

be anchored through its Comp.[10]

Summing up, Julien's claim about temporal licensing, that is, identification of the embedded tense by the matrix tense, is only substantiated in the case of complement clauses. However, Swedish *ha*-omission is equally possible in relative and adjunct clauses, as evidenced by Julien's examples (5) and (6). Their tenses cannot possibly be anchored through government by the matrix verb as Julien claims.

Although I will follow Julien's approach in the great lines, I will propose a slightly different approach to the recovery of temporal information and show that the recovery of finiteness and agreement automatically falls out of Chomsky's (2001) *Derivation by Phase* framework. The anti-root behavior of the afinite construction will come to concern us again in section 4.3, when we also propose an answer to the question *why* the auxiliary is deleted.

4.2.2. Licensing EMG auxiliary drop

4.2.2.1 The formal ingredients

Approaching EMG auxiliary ellipsis, we first have to understand what it is that has to be identified and possibly recovered in case of an ellipsis. We know that it is the finite part of a complex verb form consisting of one or more nonfinite parts like participles, infinitives, nominal predicates etc., and a finite auxiliary verb or copula. According to Julien (2002), finiteness must be overtly realised for a clause to count as finite. But finiteness is not a very clear concept and there exist different definitions or conceptions of this term. Traditionally, finiteness is understood as tense and mood marking on the verb together with its agreement with a nominative subject (cf. also the term 'tensed'). As not all languages use the same formal strategies to mark finiteness of a clause, the question arises if finiteness is not a more abstract notion than actual morphological expression.

Lasser (1997:77) distinguishes between "the overt form that finiteness takes and the invisible function that finiteness serves", M(orphological) and S(emantic) finiteness, respectively. We will turn to S-finiteness only in section 4.3. At this point, we will only be concerned with M-finiteness. I would like to interpret this concept as the morphosyntactic features *tense* and *agreement* expressed by the inflectional morphology. That means that these features are expressed through a finite (auxiliary) verb, and will have to be identifiable and recoverable in case of auxiliary drop. The question is thus which other elements refer to these categories or make them visible. This is the topic of the next subsection.

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[10] Enç notes, however, that in cases like (i), the adjunct clause shares a second temporal index with the matrix tense, serving as an antecedent of the matrix tense in a broad sense, because it includes the matrix tense (John's visit is included in his time spent in London):

(i)   John visited his aunt [when he was in London]

4.2.2.2 Recovering finiteness

It is not only the inflectional morphology that can realise M-finiteness, but also lexical complementisers heading finite embedded clauses. In fact, it has effectively (though in different terms) been argued that the semantic correlate of M-finiteness is a property of the clausal left periphery.

Since the end of the 1980s, finiteness is taken to be formally represented in the C-system, cf. Holmberg and Platzack (1988; 1995). Holmberg and Platzack (1995:44) argue that $[\pm F]$ is a feature that, depending on parametric choice in a language is either situated in C° (V2-languages) or in I° (non-V2-languages). They take the feature to be licensed, that is, made visible, by lexicalisation of the head hosting it and the presence of a nominative subject it governs. This captures the generative conception of Germanic verb second (V2) as V-to-C movement, based on the complementary distribution of finite verbs and lexical complementisers.[11]

Likewise, Rizzi (1997), whose split-CP representation we already discussed in section 3.3.2, argues for such a connection between finiteness and the C-system. In his paper on the fine structure of the left periphery, he argues that the lowest of the heads he postulates to make up his more articulated CP-domain is Fin°. The function of this head is to relate the morphological expressions of finiteness from the IP-domain (mood, subject agreement, nominative case, tense) to the CP-domain, resulting e.g. in differential choice of complementisers depending on whether the verb is finite or not (cf. *that* vs. *for* in English). According to Rizzi (1997:284f), the more 'nominal' C-domain has to reflect or mirror the (e.g. temporal) specifications of the more 'verbal' I-system. He therefore argues that rudimentary temporal and modal information is coded in the C-system as well and that the matching between this information in the C-system and this information in the I-system is achieved by Fin°. Much as the Fin-head of the C-system is facing 'inward', relating the finiteness features of the verbal domain to higher domains, Force°, the highest head in the C-system is faced 'outward', relating the clause to the higher (discourse) context. The C-system is thus the interface between the propositional structure of IP and the 'outside' context of the clause. Therefore, the information of whether the clause is finite or not has to be reflected in this interface.

Having argued in chapter 1 that finite auxiliaries reside in T, we have to establish how the finiteness features residing in C (which I will use as synonymous to Fin in the remainder of this section) can help in the recovery of features connected to T.

Chomsky (2000; 2001) postulates such a close connection between T and C. T is argued to be an inherently defective functional head, in the sense that it is not inherently φ-*complete*, that is, "entering into Case/agreement structures". A T in a raising construction, for example, is not able to license a subject in its

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[11] Cf. Koster (1975), Den Besten (1977).

specifier, although it has an EPP-feature, which can be satisfied by an expletive (or allow the raising subject to move through its Spec). It is defective in the sense that it only has an incomplete set of φ-features (only [person]), matching a raising nominal in a part of its features. This is enough to implement raising, but not enough to license the subject (inactivate it) and assign structural Case to it. T is thus φ-incomplete if selected by V (the raising verb), not by C. If selected by C, T is φ-complete, that is, it licenses a nominal subject in its Spec, assigning structural Case to it and having its φ-features valued and deleted by it. That means that in a finite clause, where T licenses a nominative subject in this way, the presence of a C+T complex is obligatory.

Now we see the link between finiteness of a clause and the presence of a complex of C- and T-head in the derivation. Taking over the assumption that C is always φ-complete, a clause will be recognised as finite and requiring an overt subject as soon as there is a lexical (finite) complementiser present in the derivation.[12] This is so because a φ-complete C-head always entails a φ-complete T. An overt C-head (filled with a subordinator like a complementiser or relative pronoun) can therefore serve as an identifier for (EMG) auxiliary drop. But what about the exact morphosyntactic features of the subject?

It is commonly assumed in recent generative theories that φ-features are canonically realised on D, the head of the DP subject. In the terminology of the Minimalist Program, Chomsky (1995), this is stated in terms of interpretability, that is, readability at the LF interface. Thus, φ is [+int(erpretable)] on D, but [−int] on T (I, Agr, ...). Assuming the subject which would agree in φ-features with the finite auxiliary sits in the specifier of T, the position where the auxiliary is normally spelt out, the [−int] φ-features of T are valued under Spec-Head Agreement; cf. also Julien's approach to Swedish *ha*-omission.

As noted above, this can however not account for the problems raised by (7)-(11). Normally, the features of the subject should be on its trace/lower copy/lower occurrence (depending on one's favourite theory of displacement) even in case it has been extracted. The Finland Swedish example shows that we cannot be dealing with a locality (or other) problem for the A′-extraction of the subject in Julien's examples – the that-trace effect in Swedish is independent of the need for a resumptive pronoun in embedded clauses with *ha*-drop. This is unexpected. It is equally unexpected that the relative complementiser *som* (which seems to be cognate to *so* in the same function in EMG) is identifier enough in subject relatives although it does not bear φ-features in any obvious way. It appears therefore as though the auxiliary ellipsis is a postsyntactic or at least an interface phenomenon and in order to make this process recoverable at the interface, local overt identification of the gap is necessary. That is to say,

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[12] This idea is akin to Svenonius' (1994) claim that IPs are semantically incomplete (open) functions, while CPs are 'information units', a combination of a proposition (IP) and an ANCHOR. This ANCHOR establishes the necessary connection between the proposition and a possible world, that is the spatio-temporal context in which a sentence is uttered and interpreted. This anchoring is achieved by C. That is, IP needs to combine with a complementiser in order to form an information unit, that is, an anchored proposition.

the φ-features of T *are* valued by the Subject or its trace, but for the recovery of the ellipsis at the interface, a local identifier – or flag – is needed.[13] Unlike in Julien's proposal, this does not necessarily have to be a specifier-head relation, but the requirement seems to be that the overt subject be in the same phase as the gap, as I already suggested in section 4.2.1.2.

As we have seen in the discussion of Julien's proposal for the identification of the temporal features visualised by the finite auxiliary, it is not so straightforward to have the features of T identified with or even valued by those of the higher verb. In the next subsection, I will propose an account of the temporal anchoring of auxiliary-less embedded clauses.

4.2.2.3 Recovering temporal information

Not only the ability to license nominative subjects is dependent on the presence of a complete C+T complex. According to Stowell (1982), there is a tense operator in C responsible for the tense interpretation [+PAST]. Similarly, as we have seen above, Enç (1987) attributes to C an important role in the temporal anchoring of an utterance as it denotes the speech time in matrix clauses and links up the tense of an embedded clause to the context. Essentially following Stowell, but proposing his own theory of temporal relations, Butler (2004:ch. 5) argues that C binds the situation variable/time in SpecTP,[14] which is similar to Demirdache and Uribe-Etxebarria (2000)'s assertion time AST-T, and puts it into relation with speech time (the context time in case of subordination). So, C plays in fact an important role in the identification of temporal relations within the clause. The tense morphology in T, if there is any, is the spell out of the temporal relation holding between C and T (their temporal arguments).

We can furthermore assume that part of the temporal information on T is or can be shared by C as well. It is clear that some C-elements can directly express temporal information, like the adverbial subordinators *nachdem* 'after', *bevor* 'before' or *als* 'when'.[15] These can induce certain tense forms to appear on T. But given that C encodes speech time,[16] we can assume that C contains temporal information not only in case of the mentioned temporal subordinators, but **always**.

In the general case, this will be a sort of *default*-tense, that is, present tense. In case of the aforementioned complementisers, it will be a specified variant. A

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[13] Recall the brief discussion of the presence or absence of flagging in the Swedish *ha*-drop construction in chapter 1. As already suspected above, it is not the participle which works as flag, but the subject, *pace* van Riemsdijk (2002).

[14] The highest C in the clause that is, since Butler has a CP topping off every 'phase', phases being *v*P and *t*P (and potentially *asp*P and *prog*P), where *t* is a 'little' head like *v* (cf. Hale and Keyser (1993), Chomsky (1995)) introducing a situation variable. The role of C is to bind these variables quantificationally.

[15] Cf. e.g. Klein (1994:section 11.2), who argues that some subordinators operate on the temporal component of his finiteness operator FIN*.

[16] To include embedded clauses, Butler (2004:107) notes, the term 'speech time' (Enç 1987) can be used more neutrally as a shorthand for "the time that the situation time is ordered with respect to".

reasonable assumption is that there is a feature [±PAST] in C by default, and that it can be specified as [+PAST] by a certain lexical selection (complementisers like *nachdem*) or, in case of complement clauses, by the embedding clause (*consecutio temporum*/SoT). In all other cases, it will surface as [−PAST].

In (20) and (21), I indicate this selectional relationship between the complementiser and T by coindexation. *do* and *als* are subordinators specified for [+PAST], whence the past tense interpretation on the missing auxiliary, yielding pluperfect.

(20) Hernach **do** jm der artzet widerumb gehulffen [_]/
      after.that when him the doctor again   helped   [had]
      'After that, when$_i$ the doctor had$_i$ helped him again ...'

                                                    (Lavater (1578; 13v,09-10))

(21) **Als**   nun die Storcken ausgelacht   [_], gerahtschlagt sich
      when now the storks   finished.laughing [had] deliberated   REFL
      Gargantua mit seim Hofgesind was   zu thun sey.
      Gargantua with his   servants   what to do   be.SUBJ
      'When$_i$ the storks had$_i$ at last finished laughing, Gargantua deliberated
      with his servants what to do.'

                                                    (Fischart (1590; 302,22-23)

But there are more means to recover functional information on dropped auxiliaries. There is more temporal information encoded in the syntax of a sentence than the link to the outside context of the clause (speech or context time). In our EMG corpus, almost 80% of the auxiliary ellipses occur in perfect tenses (present and past perfect together). Assuming that participial morphology is provided by a special Asp head as we have above, we get two temporal-aspectual heads in the clause structure. The Asp-head expresses temporal boundedness of the verbal event.

Furthermore, temporal adverbs or the discourse context can allow inferences w.r.t. the specification of T as [+ or −PAST]. The form of T is, then, always recoverable.

(22) daß er alles das, welches er **zuuor** vnter seinen alten Lehrmeistern
      that he all that which   be before under his   old   teach.masters
      eingesogen [_], vergaß
      sucked.in [had] forgot
      'that he forgot everything that he **had** learned **before** from his old
      teachers'

                                                    (Fischart (1590; 334,10-12))

Summing up, the temporal information of the dropped finite auxiliary is anchored through C and partially recovered by the presence of temporal informa-

tion [±PAST] on this head as well. Other sources of recovery include temporal adverbs and the aspectual information in non-finite verb forms.

4.2.3. Summary

In this section, two previous approaches to the phenomenon of finite auxiliary ellipsis in embedded clauses were discussed. Both approaches are especially concerned with the problem of identifying the ellipsis by either restricting the context or giving formal identifiers. Den Besten's approach explains the anti-root behaviour of the finite auxiliary drop in Swedish and archaic German by a condition on the applicational domains for transformational rules, which derives the bleeding effect of V2 on the ellipsis. Julien aims at an account of the conditions under which the ellipsis of *ha* is identified.

I argued that the chief responsibility for the licensing lies with the presence of a C/Fin node in the derivation. This is because C, selecting φ-complete T and hosting a temporal operator linking the temporal interpretation of the clause to the next higher context, is the host of both finiteness and temporal information which helps recover these features canonically spelt out on the finite auxiliary in T. The φ-features of the subject, which the auxiliary in T normally Alternatively Realises (cf. (63) in chapter 1), are recovered by the overt subject, the canonical bearer of these features. For identification of the gap, this subject has to be overtly present in the same phase as the gap.

I proposed that C plays the main role in recovering the information usually spelt out by an overt auxiliary in T, because C was argued to host both a temporal operator that binds the time expressed in T and the information that a given clause is finite and therefore has a φ-complete T, that is, a T that assigns nominative case to a subject and agrees with it in its entire set of φ-features.

(23)
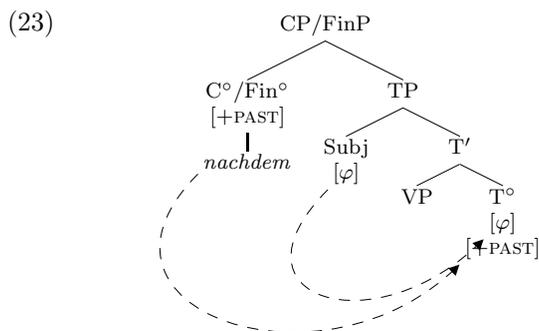
Like Julien, I assume that the omission of the finite auxiliary takes place at PF/Spell Out, in the sense of not PF-Lexicalising functional features.[17]

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[17] Cf. (62) in chapter 1 (Emonds 2000).

Until now, we have only been able to establish the conditions under which the auxiliary can be omitted. It has to be identified and its features have to be recoverable locally. Now we know *how* the ellipsis is made possible, we can address the question of *why* it can be omitted. The formal licensing does not entail obligatory drop. Apparently it is optional not only in Swedish, but also in EMG – we have seen that there are never more than 70% of the embedded clauses in my corpus affected by them, even in the period with the highest frequency (1600-1650).

4.3. EMG auxiliary drop and the syntax-pragmatics interface

This section will focus on the pragmatic dimension of the auxiliary ellipses in EMG. The reason for looking into this aspect of the EMG auxiliary ellipses is that we still have no explanation (i) for its optionality, and (ii) for the non-parallel coordination ellipses of auxiliaries in main (and embedded) clauses. The licensing account proposed in section 4.2 falls short of accounting for both problems.

As mentioned above, it has been proposed in the literature that the afinite construction develops into one of several means of marking subordination.[18] I will examine this claim here and seek to make clear in which sense it can be construed. Furthermore, we still have not come back to the non-parallel auxiliary ellipsis in coordinations. In this section, I will argue that it can receive a unified explanation together with the afinite construction discussed in the previous chapters. I claim that the function of the ellipsis of the finite auxiliary is to mark a lesser degree of spatio-temporal anchoring and thereby enable the pragmatic backgrounding of the event described w.r.t. the higher/embedding event.

The crucial ingredient for this argument is to understand what it is that distinguishes independent and subordinate clauses. How should 'subordination' be defined? An important distinction is the one between what we may call semantic and syntactic subordination.[19] As discussed extensively in the framework of functionalist typology by Cristofaro (2002; 2003), from a cross-linguistic perspective, subordination should only be defined semantically, namely as lack of assertion. I already made use of this in the last chapter when I proposed a feature [±AST] on the clause-typing head, Force°. Let us first discuss the concept of assertion (4.3.1), then look at its interaction with subordination (4.3.2), and finally turn to the role auxiliary drop plays in this respect (4.3.3).

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[18] Cf. Admoni (1980:346) and Demske-Neumann (1990:240ff).
[19] Cf. already Andersson (1975).

4.3.1. Assertion

In section 4.2, I already mentioned the distinction between M- and S-finiteness made by Lasser (1997). M-finiteness was characterised as the morphological (or syntactic) expression of the morphosyntactic features tense and agreement with a subject on the (auxiliary) verb. The term S-finiteness encompasses the semantic correlates of these features. According to Lasser, besides the notions traditionally associated with finiteness, TENSE, ASPECT and MODALITY, an important "interpretive feature" of S-finiteness is ASSERTION. This notion she takes from the work of Klein (1994; 1998; 2003), who conceives of it as a validity claim about the truth of the verbal situation for a certain time interval – the topic time (TT) of the utterance and argues that this validity claim can only be made by a finite verb.

   This is a rather specific use of the term "assertion", not commonly used in linguistic theory. Generally, there are two related uses of this term distinct from Klein's. Both refer to a proposition that is made against the background of another proposition, the so-called presupposition. In the strictly logical sense, the presupposition is a proposition whose truth conditions have to be fulfilled in order for the assertion to be true. Cancelling the assertion by negation or some other modal operator does not cancel the presupposition, cf. McCawley (1981:236):

(24)   A semantically presupposes B if A $\Vdash$ B and $\sim$ A $\Vdash$ B.

In a pragmatic use of the terms, a presupposition is "a proposition which the speaker 'takes for granted' when he utters the sentence, that is, a proposition which either has been established in the preceding discourse or the speaker can assume that the parties to the discourse will agree to" (McCawley 1981:251), thus the common knowledge background of the discourse participants. A pragmatic assertion is then any utterance made in the context of this established discourse background. According to Searle (1969:29), an assertion is a property of an utterance as well, namely the speech act used to make a commitment to the truth of a proposition.

The problem with Klein's proposal to link assertion to finiteness is that he is only talking about independent declarative clauses. Non-declarative and embedded clauses receive only a very marginal treatment in in his works. Non-declarative clauses like questions are (M-)finite as well, but it cannot be maintained that the semantic function of their M-finiteness is making a validity claim as well. Likewise, it is far from clear if (M-)finite embedded clauses, which are of course of special interest for the purposes of this thesis, make a validity claim. In fact, most are not assertional, cf. e.g. the complements of factive verbs (Kiparsky and Kiparsky 1970, Karttunen 1971) which are presuppositional.[20] Klein (2003) makes an attempt at dealing with embedded

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[20] An obvious difference between independent and embedded clauses is that the 'topic time'

finiteness, but without providing a workable solution.[21]

But although Klein is not specific about details, the intuition that there are properties of the C-domain which determine if a clause is assertive or not, and that finiteness is scoping over the proposition from the left periphery seems attractive. I would therefore like to stick to Cristofaro's (2003) assumption that semantic subordination is defined by the lack of assertion and provide more arguments in favor of this in the next section.

4.3.2. Subordination

In order to find more arguments for the semantic definition of subordination as lack of assertion, and for the assumption that this is syntactically reflected by properties of the clausal left periphery, let us look at cases where syntactic and semantic subordination clash.

There are cases of syntactic subordination (embedding) which show properties of non-subordination. Hooper and Thompson (1973) discuss extensively the environment where Root Transformations (Emonds 1976) can apply in English (syntactically) embedded clauses as well, and argue that the requirement is that these clauses express an assertion. They show that Root Transformations cannot apply in presuppositional or otherwise non-assertive clauses. In the next section I will discuss a similar phenomenon from German and Swedish which is subject to the same restriction.

4.3.2.1 The embedded verb second phenomenon

In chapter 3 (fn. 17), I briefly mentioned Brandner's (2004) assumptions about the relationship between illocutionary force and V2 in Germanic. According to her, V2 is triggered by the need to make the unmarked force, declarative, explicit in syntax for interface legibility. The recent literature on the phenomenon of V2 in (what appear to be) embedded clauses, especially in German and Swedish, seems to agree that V2 correlates with the presence of assertional force. In the present section, I will discuss these phenomena, because their distribution will help us to determine the contexts where embedded V2 is impossible. I will show that these are exactly the contexts where the afinite construction is possible in EMG.

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in the former is related to the utterance time, while in the latter, it is generally not. Klein does not go into this point.

[21] He proposes two possible ways of dealing with embedded finiteness, the "direct" and the "indirect carrier view". Both are dealing with the way in which the assertion or validity component of the finiteness operator are valued in embedded clauses. According to the 'direct' view, all clauses, independent or subordinate, have an initial operator in COMP which "carries the information 'assertion' or 'obligation'" which in case of subordinate clauses can be overwritten by a higher operator (Klein 1994:234, fn.2). Under the 'indirect' view, the FIN operator itself contains initially only a tense specification, and it continues to do so in embedded clauses. In main clauses, it "takes over validity" Klein (2003:19), but he does not specify where from.

Already Andersson (1975) observed that the syntax of Swedish embedded clauses depends on the presence of assertion: non-assertive embedded clauses are clauses which are presupposed (e.g. the complements of factive verbs, cf. (25a)) or irrealis, and they can never occur with V2. Complements of verbs of saying or belief however (e.g. *hope*, *believe*, *say*) can be indirect assertions and they can indeed (optionally) occur with V2 (cf. (25b)).[22]

(25)   a.   Jag ångrar att jag { *har inte / inte har } läst   lapska.
              I   regret that I   have not   not have   studied Lappish
              'I regret that I never studied Lappish'
        b.   Hugo påstod att   du { kommer aldrig / aldrig kommer } att
              Hugo claims that you   come   never   never come   to
              läsa den här boken.
              read this   book
              'Hugo claims that you will never read this book'

With the same class of verbs, embedded V2 is also possible in German, although, unlike in Swedish, only without a complementiser.[23]

(26)   a.   Ich glaube, der Chef ist im Urlaub.
              I   believe the boss is on holiday
        b.   Ich glaube, daß der Chef im Urlaub ist.
              I   believe that the boss on holiday is
              'I think (that) the boss is on holiday.'

That the V2 clause does indeed express an assertion, while the clause without verb movement does not, can be tested by trying to embed it under negation (27), questions (28) or imperative (29).[24] As these contexts presuppose their complements, assertions cannot be embedded under these contexts. Therefore, ungrammaticality is predicted.[25]

(27)   a.   Du hast mir (*nicht) erzählt, sie ist verheiratet.
              you have me not   told   she is married
              'You didn't tell me she is married'
        b.   Du hast mir (nicht) erzählt, dass sie verheiratet ist.
              you have me not   told   that she married   is

(28)   Läser Nicke på universitet därför att han { *kan inte / inte kan }
        studies Nicke at university because   he   can not   not can

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[22] Example (25) is taken from Wechsler (1990:231). Thanks to Björn Lundquist (p.c.) for
      pointing out that the politically correct term should be *samiska* instead of *lapska*.
[23] Wechsler (1991) attributes this to a parametric difference between the two languages.
[24] For more discussion on the non-assertivity of complements to negated, interrogative,
      imperative or conditional sentences for German, cf. Meinunger (2004:319).
[25] Example (27) is German, (28) is taken from Andersson (1975:26) and (29) I owe to Björn
      Lundquist (p.c.). In fact, at least in written language, (27a) can appear in subjunctive
      mood. More on that below.

få   jobb?
get a.job
'Does Nicke study at the university because he cannot get a job?'

(29)   Säg att   du { *har aldrig / aldrig har   } varit otrogen   mot mig
        say that du   have never   never have   been unfaithful to   me
        'Tell me you've never cheated on me'

A further point is that assertive embedded clauses cannot be preposed, as has been variously observed.[26]

(30)   a.   That Salieri poisoned Mozart I know/recognise/admit/regret
        b.   That Salieri poisoned Mozart I $^?$believe/$^?$claim/*say/*think/*reckon

(31)   a.   ... eftersom Johan { har inte / inte har } kommit
                 since   J   has not   not has   come
              'since John has not come'
        b.   Eftersom han { alltid   har / *har alltid   } varit interesserad av
              since   he   always has   has always   been interested   in
              språk,   studerar Robin linguistik
              language studies   Robin linguistics

Similar observations can be made for (Modern) German, which besides the complementiserless V2-complements as in (27) also allows 'embedded' V2-declaratives with complementisers to a certain extent:

(32)   a.   Wir müssen bis   morgen   warten, [weil   die (haben) jetzt
              we must   until tomorrow wait   because they have   now
              schon   geschlossen (haben)]
              already closed   have
              'We (will) have to wait until tomorrow, because now they are closed already'
        b.   [weil   die (*haben) jetzt schon   geschlossen *(haben)],
              because they have   now already closed   have
              müssen wir bis   morgen   warten
              we   must until tomorrow wait
              'Because they are closed already now, we (will) have to wait until tomorrow'

In (32a), the V2-order goes along with a special intonation pattern (clause$_1$ (/) *weil*: (.) clause$_2$). After *weil*, there is an intonational break (.), before the complementiser *weil*, there is a non-final boundary-tone (/). This pattern indicates that we are dealing with something similar to the German V2-relative clauses discussed by Gärtner (2001a;b; 2002), which also have a non-final boundary-tone (/) at the border of the two clauses and are obligatorily extraposed. They

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[26] Cf. also Kiparsky and Kiparsky (1970), Hooper and Thompson (1973), Horn (1986). Examples (30) from Wechsler (1990:233) and (31) from Andersson (1975:20).

are not simply juxtaposed main clauses, because a final boundary tone (\) is impossible, nevertheless, according to Gärtner, such "integrated verb second" clauses are paratactic to the putative main clause. The inversion of subject and verb in the main clause in (32b) on the other hand indicates that the adverbial clause introduced by *weil* is syntactically embedded, thus the construal is hypotactic. In (32b), where only embedded clause word order is possible, the adverbial clause forms the presupposition for the main clause assertion. Being in topic position, and therefore in a position for information given in discourse, it is pragmatically interpreted as the background while the matrix clause is in focus.

Gärtner (2001b) argues that V2-relatives have assertional "proto-force", which can translate into full assertivity under certain conditions, and makes entire backgrounding of the clause in terms of focus-background structure impossible. This accounts for the oddity of (33c).

(33)   a.   A: Wer kennt jemanden, der ein Fahrrad besitzt?
                  who knows someone   that a   bicycle   owns
               'Who knows someone who owns a bicycle?'
        b.   B: MARIA kennt jemanden (/), der ein   Fahrrad besitzt.
                  Mary   knows someone   that a   bicycle owns
               'It is Mary who knows someone who owns a bicycle'
        c. ??B: MARIA kennt jemanden (/), der besitzt ein Fahrrad.

Gärtner's (2001b) ASSERTIONAL PROTO-FORCE CONSTRUAL assigns assertional force to a V2-relative clause if no interveners like negation or incompatible proto-forces in the higher clause prohibit it. The consequence is that V2 relatives cannot be fully backgrounded in pragmatics as just seen. That implies that the normal construal of embedded, non-(proto-)assertional clauses, is presuppositional, and can therefore be pragmatically interpreted as backgrounded. As just discussed, the complements of some non-factive verbs like *hope*, *believe* or *say* express indirect assertions (Wechsler 1991). These are verbs which in German for example allow for optional V2 order without complementiser, cf. Wechsler (1991:188). With Gärtner, one can say that the complements of these verbs have assertional proto-force if they have V2 order, and can be construed as assertional if they do not clash with the matrix clause.

Given these observations, there is a clear correlation between the presence of assertional force and verb movement to Fin°, which can be captured by assuming, as we have done in chapter 3, the presence of a corresponding feature [±AST] on Force° which has to be made visible in syntax. The head which takes care of this visualisation is not Force° itself, but Fin°. This is because this is the head linking the C- and I/T-domains of the clause, the interface between the clause-internal, inflectional domain and the syntax-pragmatics interface. Wechsler (1990; 1991) proposes to treat V2 or the presence of a lexical complementiser as illocutionary force indicators. This term is taken from Searle (1969), according to whom actual syntactic or morphological elements or phonological

devices function as indicators of illocutionary force (e.g. assertion). Examples he gives are "word order, stress, intonation contour, punctuation, the mood of the verb, and the so-called performative verbs" (Searle 1969:30).

I claim that it is Fin° that spells out the assertiveness and clause-typing features of Force°, cf. the choice of complementisers depending on it. The claim is that the devices Fin° has to spell out [±AST] in EMG are verb movement (V2), the insertion of a lexical complementiser to block V2, and, receding, subjunctive mood. I therefore propose that Fin° itself can be understood as exercising the function of indicating illocutionary force, by always hosting one of Searle's 'actual' indicators. I furthermore propose that a clause with Force° specified as [−AST], made visible by Fin°, can pragmatically be interpreted as backgrounded. Therefore, the independent/subordinate distinction is a result of the working of the Force-Finiteness system plus a pragmatic interpretation of its syntactic specifications.[27]

Having discussed the connection of the lack of assertional force and subordination and its visualisation by Fin°, we now have to ask how the ellipsis of finite auxiliaries fits into the picture.

4.3.2.2 M-finiteness and subordination

In the last subsection, we have seen conditions under which embedded clauses can potentially express an (indirect) assertion. If these conditions are not fulfilled, a clause is subordinate and does not express an assertion. Under these circumstances it can be interpreted as backgrounded. The question is now if there is a relation between subordination (Fin° visualising [−AST]) and the absence of finite morphology, as also in the afinite construction. In this subsection, I will claim that there is such a connection and that it is actually cross-linguistically well-attested.

According to Cristofaro (2003), it is a cross-linguistically typical strategy to mark subordination and thus the lack of assertion by expressing less finiteness categories in the subordinate clause. Finiteness categories are the ones associated with the *verbum finitum* in the Latin grammar tradition: Tense, Mood, Aspect, Person and Number (Lühr 1998).

Schrodt (1980) and Donhauser (1986) argue that different verb forms express different degrees of 'actualisation' of the verbal event, depending on the number of finiteness categories they encode. According to Schrodt and Donhauser, indicative mood expresses the highest degree of 'actualisation' because it contains the highest number of finiteness-features and infinitives express the lowest

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[27] There is more cross-linguistic evidence for a connection of clause typing and the main/subordinate clause distinction, which indicates that both are functions of the Force-Finiteness system. Take for example Cheng's (1991) observation that the particles typing clauses as interrogative in *wh*-in-situ languages ('Typing Particles') "have a 'matrix clause' property, i.e. [...] if a language has a Typing Particle, it will always be able to appear in matrix clauses", but not necessarily in embedded clauses. Cf. Cheng (1991:35), and her chapter 2 more generally.

degree. We can equate the concept of 'actualisation' with the 'spatio-temporal anchoring' of the verbal event, that is, the degree of its location and actuality in the world.[28]

(34)	form	content	degree of 'actualisation'
	infinitive	semanteme + categorial feature 'verb'	non-'actualised'
	participle	semanteme + 'verb' + aspect	minimally 'actualised'
	imperative	semanteme + 'verb' + aspect + number	partially 'actualised'
	subjunctive	semanteme + 'verb' + aspect + number + person	partially 'actualised'
	indicative	semanteme + 'verb' + aspect + number + person + tense	fully 'actualised'

Now interestingly, many languages make a formal distinction between main and subordinated clauses by using verb forms that are somewhere higher on the hierarchy in (34) in subordinate clauses, e.g. gerunds or participles or subjunctive mood. It seems to be a cross-linguistically very common pattern that in subordinate clauses, fewer finiteness distinctions (Tense, Mood, Aspect, Person and Number) than in independent clauses are expressed, or none at all. This strategy of subordination marking is what Cristofaro (2003:54ff) calls a *deranking* strategy.[29] The following sentences exemplify this. In Singhalese, according to Matzel (1987), there can only be one finite verb form in a sentence, the predicate of the main clause. All verbs of dependent clauses must be realised as participles, cf. (35).

(35)   ḷamayā liyumak liyalā   nidā- gannavā
       the.boy a.letter having.written sleep took
       'After having written/he had written a letter, the boy went to bed.'

(Matzel 1987:47)

The Portuguese *infinitivo pessoal* (inflected infinitive) used in certain subordinate clauses probably has to be analysed on a par with other 'minimally actualised' forms like subjunctive, it is inflected for person and number, but not for tense, mood or aspect.[30]

(36)   Ao   sair-mos   da   piscina,   nós encontrá-mos o
       at.the leave.INF.1PL from.the swimming.pool we meet.PERF.1PL the

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[28] The table in (34) is a roughly translated merger of the tables in Schrodt (1980:36) and Donhauser (1986:141).

[29] Another deranking strategy besides differential marking of the verb form in the subordinate clause Cristofaro discusses is differential participant coding. The opposite strategy of subordination marking Cristofaro (2003) discusses is *balancing*, that is, no formal distinctions obtain between main and subordinate clauses, only semantic-pragmatic ones (viz. lack of assertion).

[30] Thanks to Jorge Andrade da Silva (p.c.) for example (36).

> Jorge.
> *Jorge*
> 'On leaving/When we left the swimming pool, we met Jorge'

The following example from Italian demonstrates the use of a special morphology, subjunctive mood, in subordinate clauses. Subjunctive mood also expresses fewer finiteness features than indicative, according to (34).

(37) Pens-a   che io sia   molt-o brav-a
      think.PRES.3SG *that I be*.PRES.SUBJN.1SG *very   smart*
      'He thinks that I am very smart'[31]

(Cristofaro 2003:133)

It is well known that subjunctive mood in French occurs in the complements of negative, interrogative, doubting, subjective, potential and irrealis clauses, and is obligatory in preposed clauses like (38), taken from Wechsler (1990:233), thus all the contexts identified as non-assertive.[32]

(38) a.   Que Minet boive   est évident
           that Minet drink.SUBJN *is   evident*
      b.   Il est évident que Minet boit
           it is   evident that Minet drink.INDIC

We thus see that the notion of spatio-temporal anchoring or actualisation is closely related to the assertivity of a clause. As a last point demonstrating a correlation between the absence of 'finite' morphology in subordination and assertion cf. Hooper and Thompson (1973:484f), who show that Root Transformations can never be applied in what they call 'reduced' clauses, by which they mean "infinitives, gerunds, and subjunctive clauses, i.e. those complement types which have uninflected verbs". They attribute this to the fact that reduced clauses can never be assertions. It therefore seems that Klein's intuitions about the relationship between assertion and finiteness are not entirely wrong, but that the relation is inverse and one-way: absence of finiteness implies absence of assertion, but presence of (M-)finiteness does not automatically imply the presence of an assertion.

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[31] The abbreviations are Cristofaro's; PRES = present tense, SUBJN = subjunctive.

[32] Remember I remarked in footnote 25 that complementiserless complements to verbs of saying can appear in subjunctive mood in Present-day German. In fact, the V2-clause of (27) improves with subjunctive in the complement, although it is an incomplete utterance, *Du hast mir nicht erzählt sie sei/wäre verheiratet [SONDERN ...]* 'You did not tell me she was married [BUT ...]'. Cf. Hooper and Thompson (1973:482) for a similar observation on English. I take this to indicate that the subjunctive V2 clause has less or no assertive potential, because it can be embedded under negation.

4.3.2.3 Summary

This section has shown that the verb form in subordinate clauses has a cross-linguistic tendency to express fewer finiteness features. We have to wonder why that would be such a common strategy. As established above, an independent clause is usually anchored to the speech time and generally the here and now of the speaker, while subordinate clauses are anchored through C°/Fin°. The expression of fewer 'finite' categories thus seems to go together with a lesser degree of spatio-temporal anchoring, much in line with (34). We furthermore discussed the role of Fin° in marking a clause as $\pm$ subordinate, functioning as an illocutionary force indicator. The fewer finiteness features are realised, the less a clause can be used to make an assertion and the more it can thus be interpreted as part of the background.[33]

These correlations are suggestive if we look at the auxiliary ellipses in EMG. If the finite auxiliary is omitted, what remains is a form that is higher up on the hierarchy in (34), namely a past participle or an infinitive ($\pm$ *zu*). The claim I would like to defend here is that the omission of the finite auxiliary is another strategy of marking subordination by deranking on a par with subjunctive mood e.g. in the Italian example in (37). Realising Force[−AST], it is one of several ways to express the lack of anchoring to the speech context.

A non-assertive embedded clause is likely to receive a pragmatic interpretation as backgrounded. Ultimately, this will provide us with an explanation beyond the auxiliary drop in embedded clauses (afinite construction) for the non-parallel auxiliary ellipses in coordinations, both with embedded and main clauses.

4.3.3. Auxiliary drop as marking non-assertiveness

My claim in chapter 3 was that the emergence of sentence-final verb placement and changes in the the inventory of complementisers formed the preconditions for the rise of the afinite construction. There and in section 4.3.2, I argued that verb placement and the presence of a lexical complementiser are the expression of the lack of assertion. Why would a language need an extra marker of [−AST]? In the remainder of the chapter, I propose that given that lack of assertion in subordination is a condition for pragmatic backgrounding, the EMG auxiliary ellipses develop into a means to facilitate pragmatic backgrounding. Furthermore, auxiliary drop in EMG is used to express indirect/reported speech and a lower degree of veracity.

4.3.3.1 Remarks on the empirical domain again

Let us recapitulate the facts we want to account for here. First, there is the afinite construction in embedded clauses, as exemplified by (39). This is the

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[33] Cf. Hopper and Traugott (1993:495) for establishing a link between (non-)assertivity and focussing (emphasis) and backgrounding.

construction type we focussed on most in the preceding chapters because it cannot receive an explanation in terms of deletion under identity.

(39) do   wir die Schiffungen mit Speiß/ Geschützt vnd ander
      when we the ships   with food   arms   and other
      notturfft: biß vff den xxv: tag des   mertzen [...] gerust   vnd
      necessities until to the 25ᵗʰ day of.the March   equipped and
      versehen   [_]   Haben wir vff den selben tag in gottes namen
      provided.with [had] have   we on the same   day in God's name
      angesegelt gegen   Jndiam
      to.sailed   towards India
      'When we had equipped our ships until March 25 with food, arms and other necessities, we set off sailing towards India the very same day.'

      (Springer (1509; A2a,19-23))

The other type of auxiliary ellipsis that we addressed in the beginning of this thesis but have not yet come back to are the non-parallel auxiliary ellipses in coordinations. (40) is an example of such an ellipsis with coordinated relative clauses, while (41) is an example of coordinated main clauses.

(40) welcher ein BurgersKind von Memmingen / vnd zu Straßburg **war**/
      who   a citizen.child of Memmingen   and at Straßburg was
      auch hernacher Doctor der   H.   Schrifft worden [_] / vnd zu
      also afterwards doctor the.GEN holy Bible   become [is]   and at
      Vlm gelehret [_]
      Ulm taught   [has]
      'who was a citizen of Memmingen and Straßburg (and) also later became a theologist and taught in Ulm'

      (Schorer (1660; B15,04-06))

(41) vnd die drey gebrüder **sein** auf solch ersüchen khumen/ vnd [_]
      and the three brothers are   on such request   come   and [have]
      das gepiet zwischen einander   außgetailt
      the area   among   eachother divided
      'On such request, the three brothers came and divided the land among them'

      (Herberstein (1558;2ᵛ,34-35))

The main characteristic is that they are also arguably not deletion under identity, at least not in the traditional sense. While the overt auxiliary in (40) is the copula in past tense, the missing ones are perfect auxiliaries, a form of *sein* 'be' in the first conjunct and of *haben* 'have' in the second. The only features they have in common are person and number (3SG), as they all pertain to the same

subject. Person, number and tense are the same for the perfect auxiliaries in
(41), but again, the lexical items are different, *sein* is overt, *haben* is covert.[34]
Recall from chapter 3 that prior to the establishment of sentence-final verb
placement (and the emergence of auxiliary drop), subjunctive mood was fre-
quently used in subordinate clauses (Lühr 1985). Thus, older stages of German
can be argued to have had a tendency to mark subordination by the expres-
sion of fewer finiteness features, be it subjunctive mood or auxiliary drop. My
claim here is therefore that the ellipsis of finite auxiliaries in EMG develops as a
marker of subordination expressing a lesser degree of spatio-temporal anchoring
or actuality similar to subjunctive mood.

In what follows, I will first make this argument for the afinite construction,
that is, the omission of finite auxiliaries in embedded clauses, and then for the
the non-parallel coordination ellipses of finite auxiliaries.

4.3.3.2 The afinite construction in embedded clauses

First, I would like to show that the ellipsis of the finite auxiliary indeed func-
tions as a marker of subordination. Recall from chapter 3 that in case of am-
biguous sentence-initial elements, verb placement as well as auxiliary ellipsis
can decide over their status (adverbs vs. complementisers).

In EMG, there were a number of sentence-initial elements that were am-
biguous between being subordinating complementisers and adverbs occupying
the *Vorfeld* in V2 main clauses, including *da* 'there, then', *so* 'thus, who,
which', and pronominal adverbs, formed by *da* + preposition. According to
Lühr (1985), it is the position of the finite verb that decides the status of the
initial element (adverb vs. complementiser). As already discussed in chapter
3, pronominal adverbs were frequently used introducing so-called continuative
relative clauses, adverbial relative clauses continuing on a preceding clause.
Demske-Neumann (1990) finds in her corpus of EMG newspapers that 85%
of the continuative relative clauses introduced by a pronominal adverb in the
function of a relative pronoun are in fact auxiliaryless. That means that the
lack of the finite auxiliary makes clear if one is dealing with a subordinate or

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[34] Person and number do not have to be identical though. In (i), it is the number which is
incongruent, some being singular, some plural.

(i)   drumb   siht man itzt/ das welschlandt/ fast   wust   **ist**/ kloster
        therefore sees one now that Italy   almost depredated is   monasteries
        vorstoret [_]/ bistumb vortzeret   [_]/ prelaturn vnnd aller   kirchen   tzinße
        *destroyed [are] dioceses consumed.up [are] prelatures and   all.*GEN *churches tax*
        gen   Rome tzogen [_]
        towards Rome drawn [is]
        'therefore one can see now that Italy is almost completely depredated, that monas-
        teries are destroyed, dioceses are consumed up, that money from all churches and
        prelatures is drawn to Rome'

                                                          (Luther (1520;C3[b],29-32))

an independent clause.

The two following examples from my corpus show how verb placement and auxiliary drop determine the status of the clause as a main or relative clause, respectively.[35]

(42)   654. Fiel Feuer vom Himmel/ **darauff** kam ein Sterbent/
    654 fell fire from sky there.after came a dying
    'In 654, fire fell from the sky. **Subsequently** started a period in which many died.'

            (Schorer (1660; C1,20))

(43)   **Darumb** ich aich nit allain von hörensagen/ bericht [_] thuen
    there.fore I also not only from hearsay report [have] do
    wöllen
    *want.*IPP
    '... because of which I also did not want to report only based on hearsay'

            (Herberstein (1557; 1r,25-26))

In order to substantiate the claim that the function of auxiliary drop is to express a higher degree of dependency, and to pragmatically background a proposition, let us look at the following example of a very extensive preposed adverbial clause, which itself contains several levels of clausal embedding, partly using infinitival constructions.

(44)   ALs Jch gar nahe von jugendt auff sondere begürde gehabt
    as I almost from youth on special desire had
    [_]/ in ferre Landtschafften zů ziehen/ fürnemlich aber inn
    [have] into far countries to travel foremost however into
    die Morgenländer/ alß die für andere mehr berümbt vnd
    the orient.countries as they before others more famous and
    fruchtbar seind/ welliche die älteste Völcker erbawet [_]/ auch die
    fertile are which the oldest people built [have] also the
    mechtigisten Potentaten vnd Monarchen der Welt/ vor Jaren
    most.powerful emperors and monarchs of.the world before years
    jnnengehabt/ vnnd bewohnet [_]/ nicht allein derselbigen
    owned and lived [have] not only their
    Jnnwoner leben/ sitten vnd gebräuch/ warzunemen/ sonder
    inhabitants' life customs and customs to.learn but
    auch vnd vilmehr die schöne Gewächs vn̄ Kreüter/ vom
    also and much.rather the beautiful plants and herbs by

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[35] Cf. also chapter 3, section 3.3.4.

Theophrasto, Dioscoride, Auicenna, Serapione 'c.   beschriben/ an
T.   D.   A.   S.   etc. described   in
den enden vnnd orten/ da   sie   wachßen/ zuerkundigen/ vnnd
the ends   and   places where they grow   to.research   and
zuerkennen/ damit   mir jre   beschreibungen inn ansehung vnd
to.learn   so.that me their descriptions   in   watching and
betrachtung   deren/ sonderlich aber   der mehr frembden vnd
contemplating them   especially however the more strange   and
vnbekandten/ zum   thail bekandtlicher vnd verstendtlicher
unknown   to.the part more.known   and more.understandable
wurden/ zum   thail auch den Apoteckern vrsach gebe/ ferrner
became   to.the part also the pharmacists reason give   further
nach denen/ die   jhnen zu haben von nöten [_]/ zu trachten/
after those   which them to have   of   need [is] to seek
Sůchet ich diß mein fürneṁen ins   werck zusetzen/ mittel vnd weg/
sought I   this my   plan   into work to.put   means and ways
...

'[As I had had already early on the desire to travel into faraway coun-
tries, especially into the countries of the orient [as they are more famous
and fertile than others, and have been founded by the oldest people and
in the past, were ruled and lived in by the most powerful emperors and
monarchs in the world], in order to not only study the life and customs
of their inhabitants, but also and much rather in order to study the
beautiful plants and herbs, described by Theophrastes, Dioscorides,
Avicenna and Serapionis, in the places where they are growing, so that
in part I would come to understand their descriptions better by look-
ing at them, especially of the less or unknown ones, in part in order to
iniciate pharmacists to look further for those (plants and herbs) they
need], I was seeking means and ways to make this plan of mine come
true.'

(Rauwolf (1582; 1,13-2,11))

Let us first look at the core of the preposed adverbial clause, 'ALs Jch gar
nahe von jugendt auff sondere begürde gehabt [_]/ in ferre Landtschafften zů
ziehen [...]/ Sůchet ich [...] mittel vnd weg/' (*As I had had already early on the
desire to travel into faraway countries, I was seeking means and ways (i.e., the
financial means)*). First of all, it is a presupposition, as negation of the main
clause – 'I was (not) seeking means and ways' does not cancel it, the 'desire
to travel faraway countries' will remain. Given that the clause cannot be an
assertion, we have to check if it is actually backgrounded or 'backgroundable'
in any conception of focus-background structure.

Now let us briefly turn to the other cases of auxiliary drop in (44), first

the non-restricive relative clause further down, '[die Morgenlånder] welliche die
ålteste Völcker erbawet [_]/ auch die mechtigisten Potentaten vnd Monarchen
der Welt/ vor Jaren jnnengehabt/ vnnd bewohnet [_]/ ' (*the countries of the
orient, which have been founded by the oldest people and in the past, and were
ruled and lived in by the most powerful emperors and monarchs in the world*).
It is a well-established fact that non-restrictive relative clauses express presup-
positions, cf. the following example from Hooper and Thompson (1973:486):[36]

(45)   a.   The Tiv, who respected Bohannon, are (not) a generous people.
              ⇒
        b.   The Tiv respected Bohannon.

Given that the relative clause from (44) is non-restrictive and therefore a pre-
supposition, the lack of assertion is automatic. Given that it is a non-restrictive
relative clause, background information on the topic 'the countries of the ori-
ent', is provided, which does not (and cannot) have a prominent role in the
focus-background structure of the text.[37] The same argument can be made for
the other relative clause in (44), 'nach denen/ die jhnen zu haben von nöten
[_]/ zu trachten' (*to seek those [plants and herbs], which they are in need of*).
It can be either restrictive or non-restrictive, but crucially, it is backgrounded
additional information.

    Therefore, I propose that the ellipsis of the finite auxiliary in these cases is
a means to express the status of the clause as non-assertive and (more) back-
grounded.

The analysis of my corpus reveals that adverbial clauses are especially frequent
in clause-initial (*Vorfeld*) position and in my corpus, they are mostly auxiliary-
less in this position.[38] I tested all clause types for a statistic correlation of
auxiliary drop and position of the embedded clause, and for adverbial clauses,
I found a strong correlation.[39] Given that preposed clauses are generally non-
assertions, this is no surprise.

    As opposed to the other two types of embedded clauses, the ratio of position
types (preposed, postposed, or medially positioned) is not the same for adver-
bial clauses with and without overt finite auxiliaries. Table (46) shows how
many (non-) occurrences of auxiliary drop are found in which position.[40]

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[36] Given a definition of (semantic) presupposition as the one by McCawley (1981) cited in
      section 4.3.1.
[37] For comparison, cf. Gärtner's (2001b) example cited in (33) above, where 'intregrated'
      V2 makes backgrounding impossible.
[38] The type of modfying relation to the embedding clauses seems to play a role as well,
      temporal and causal clauses tend to appear in the *Vorfeld* while consecutive, concessive
      and final clauses show a preference for following the embedding clause.
[39] The details of this analysis for all clause types can be looked up in appendix B.5.
[40] "+" means auxiliary drop, "−" means overt auxiliary ("± occurrence of the afinite con-
      struction"). As in the previous chapter, I have grouped the data into periods of 50 years.
      Of course, a sample of only five speakers is far too small to make any statements about a

(46)

	pre		middle		post	
	+	−	+	−	+	−
1450-1500	3	106	0	19	4	118
1500-1550	14	80	6	6	24	126
1550-1600	122	66	28	18	72	125
1600-1650	128	32	38	33	173	108
1650-1700	146	37	42	16	115	93
1700-1800	4	40	2	9	6	74

This shows that in the periods in question, the percentage of auxiliary drop is much higher in preposed adverbial clauses compared to the other position types. (47) gives the results of the correlation analysis.

(47)

Period	ϕ	χ^2	p	s.l.	N
1450-1500	0,051	0,650	.722	n.s.	250
1500-1550	0,193	9,536	.006	$< .01$	256
1550-1600	0,276	32,832	.000	$< .001$	431
1600-1650	0,205	21,517	.000	$< .001$	512
1650-1700	0,247	27,393	.000	$< .001$	449
1700-1800	0,101	1,377	.505	n.s.	135

We see in (47) that the ϕ-coefficients of correlation and therefore the correlation of position and auxiliary drop in the periods in question are even highly significant So, for adverbial clauses, we do find a strong correlation in exactly those periods in which the afinite construction is most strongly established, as we already saw in chapter 3. The linguistic interpretation that, given (46), suggests itself for this – so far purely mathematical – result is that the auxiliaries are especially dropped in preposed adverbial clauses while they are preferably kept in postposed clauses (medially positioned ones are less clear).

Our assertion tests above demonstrated that preposed clauses must be presuppositional. We furthermore argued that such clauses are prone to receive a backgrounded function in the focus-background structure, which is expected given that they are probably in some topic position and that topics form established information. We can take this to prove the claimed correlation of lack of assertion, backgrounding, and auxiliary drop.[41]

Of course, even when the ellipsis becomes established as a means of structuring discourse after 1550, there are still enough cases in the corpus with an

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language speaking population, but given this cautionary remark, it should still be possible to work out a trend in the data (not necessarily in EMG as a language) even if it is only for such a small sample. (46) gives the aggregated numbers for adverbial clauses, the results for the other clause types can be found in the appendix.

[41] Recall section 2.4.4, which discussed an earlier assumption that auxiliaries are often dropped at the right periphery of embedded clauses under adjacency to a homonymous form in a following main clause (Ebert (1986:133) and Ebert et al. (1993:442)). Such an adjacency can only arise in case of a preposed embedded clause. In the light of numerous counterevidence to both the adjacency as well as to the arguments for haplology/homophonony, we now understand what is behind the frequent auxiliary ellipsis in preposed adverbial clauses.

overt auxiliary in a preposed (adverbial) clause. Therefore, non-assertiveness is not sufficient for auxiliary drop.

(48) Wie nun diser grund   gelegt **wz**/ sind sy   z$\overset{o}{\text{u}}$ etlichen
      when now this foundation laid   was are they to several
      fürnem̄en burgerē/ die jnē   nit vngünstig   warend gangen/
      noble   citizens who them not unfavorable were   gone
      'When these foundations had been laid, they went up to several noble citizens who were not unfavorable towards them'

(Lavater (1578; 30^v,05-07))

As Wechsler (1990:243) argued for embedded V2 in Swedish, as long as there are distinguished means to mark (syntactic) dependency, 'optionality' is not surprising, but expected. I would like to propose a hierarchy of grammatical means to express dependency of a clause in EMG, where auxiliary ellipsis appears as something like the elsewhere-case:

(49) $V2 \gg C+V2/V2+subjn \gg C+V_e \gg C+V_e+subjn \gg C+V_e+aux.drop$

This should be understood as follows: V2 is the word order in independent clauses which are most likely to express an assertion and cannot be backgrounded. A complementiser with V2 is what we find in the V2 relatives or *weil*+V2. As shown above, these cases cannot easily be backgrounded and are impossible in preposed position, where only presuppositional clauses are possible. V2 with subjunctive mood in embedded clauses is what can be used in indirect speech. We will turn to this case directly and see that in EMG, this type, more common in Present-day German, is often replaced by the afinite construction ($C+V_e+aux.drop$). A complementiser with sentence-final verb placement (V_e) is the most neutral case of an embedded clause. A complementiser with sentence-final verb placement and subjunctive mood could be argued to mark a higher degree of dependency still. This type is also found with indirect speech. Last, a complementiser with sentence-final verb placement and auxiliary drop, I claim here, is the construction that marks the highest degree of dependency.

There is one more function to the afinite construction, besides expressing lack of assertion and thereby backgrounding a subordinate clause, namely marking indirect evidentiality and to a certain degree doubted veracity. This function is also related to using verbal forms higher on the hierarchy in (34) to express a lesser degree of 'actualisation'.

Generally, reported utterances are assumed to at least potentially express indirect assertions.[42] That is, non-factive verbs like *say* and *claim* are assumed to introduce such indirect assertions. Now, the typical format of EMG news-

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[42] Cf. Hooper and Thompson (1973:§ 2.2), Wechsler (1991:181f/188) and our discussion in section 4.3.2.

paper reports is "We receive the information that X", followed by a sequence of embedded clauses containing the reported news, cf. also Demske-Neumann (1990). Therefore, following the introducing phrase, we expect the clause to have assertive potential and therefore no auxiliary drop, according to our above assumptions. This is however not the case, in all the embedded clauses following the opening "report"-statement, the auxiliary is missing.

(50)   Bey Zumachung diß   kompt ein/ das der   Stendt Volck
        *at   closing   this.*GEN *comes in   that the.*GEN *states people*

        mit den Bucheimischen Reutern einen starcken Scharmützel gethan
        with the Bohemian   knights a   strong   skirmish   done

        [_]/ vnd die Bucheimischen so   vbermannet gewesen [_]/
        [has] und the Bohemians   thus overpowered been   [are]

        vber   100. der   andere aber/   welche eine guten Vorteil
        more.than 100 of.the others however who   a   good   advantage

        gehabt [_]   gar   wenig geblieben [_]/ von Bucheim Jhr
        had   [have] hardly little   remained [are] from Bohemia to.His

        Kön: May: wieder solchen Gewalt vmb starcke Hülff
        Royal Majesty against such   violence for   strong help

        zugeschrieben [_]
        to.written   [have]
        'At closing this [issue of the newspaper] we receive the report that the army of the States had a fierce battle with the Bohemian knights and that the Bohemians have been overpowered; of more than a hundred others however who had a good advantage, hardly any survived [and] wrote from Bohemia to His Royal Majesty for powerful help against such violence.'

                                          (Aviso (1609; 3/4,17-22))

What this looks like is that in complements of reporting predicates, the afinite construction functions like an evidential, that is, a morphological means to mark the source of knowledge, in this case the indirect acquisition of this knowledge. Evidentiality is a grammatical category marked morphologically in some languages to express on what kind of evidence a statement is based, cognitive (direct aural, visual, ... experience), apparental (drawn from indirect evidence), indirective (hearsay), etc., cf. Aikhenvald (2004). Like about 75% of the world's languages, German does not count as a language marking evidentiality morphologically. It is rather using lexical means like parentheticals (exactly constructions like *they say, we hear that*). Interestingly however, in Present-day (written) German, verbs of saying and reporting can optionally take subjunctive complements still ($\pm$V2), where subjunctive mood acquires an evidential extension and marks the fact that the source of knowledge is indirect (reported/indirect speech).

(51)   Es wurde verlautbart, dass neue Übereinkünfte zwischen den
       it was   reported   that new agreements   between the
       Parteichefs   getroffen worden **seien**.
       *party.leaders made   been   be.*SUBJN
       'It was reported that new agreements between the party leaders have
       been made'

(52)   Bislang **seien**   zwei Angehörige des   Gefängnispersonals in
       *so.far be.*SUBJN *two members   of.the prison.staff   in*
       Guantánamo diszipliniert worden, hieß   es aus   Kreisen
       Guantánamo disciplined   been   was.reported it from circles
       des   Weißen Hauses.
       of.the White   House
       'It was reported from White House sources that so far, two members
       of the prison staff at Guantánamo have been disciplined.'

Given our argument that the afinite construction is a means of expressing a
lesser degree of spatio-temporal anchoring on a par with subjunctive mood, this
connection is striking, even more as we have seen in chapter 3 that it emerges
as a consequence of subjunctive mood being pushed out of marking embedded
clauses. Therefore, I am claiming that omitting the finite auxiliary in EMG
functions as a non-firsthand evidential in indirect speech and reporting con-
texts similar to subjunctive mood.

Embedding the proposition under a reporting predicate is furthermore a pos-
sible means of relativising its 'assertive power'– "it is reported that X is the
case" is less assertive than "X is the case". According to Aikhenvald (2004),
non-firsthand evidentials tend to overlap with epistemic extensions such as
reliability, probability or possibility – "the speaker could choose to use the re-
ported evidential if he or she does not vouch for the veracity of the reported
information" (Aikhenvald 2004:7). As just mentioned, in Present-day German,
reported facts can be marked by subjunctive mood. Often, this is used as well
to mark that the truth or trustworthiness of the reported is doubted by the
reporter:[43]

(53)   Es wird gemunkelt, dass der Bundeskanzler   eine Affäre mit einer
       it is   rumoured   that the federal.chancellor an   affair with a
       bekannten Journalistin **habe**.
       *known   journalist have.*SUBJN
       'Rumour has it that the chancellor has an affair with a known journal-
       ist.'

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[43] According to Reis (1997:124f), this is the main function of subjunctive mood in indi-
      rect/reported speech.

Concerning the assertive potential of complements of non-factive verbs, remember from chapter 3 that between 1550 and 1700, the period when the auxiliary ellipsis seems most established, there is a notable difference of about 20% in the frequency of auxiliary ellipsis between relative and adjunct clauses on the one hand and complement clauses on the other. The non-selected clause types tend to show auxiliary drop more frequently than selected clauses. This suggests that indirect assertivity may play a role, in the sense that sometimes, the complement clauses do express (indirect) assertions and therefore cannot be backgrounded. The figures are repeated in (54).

(54)

	relative	adjunct	argument
1550-1600	48,4	54,2	26,5
1600-1650	67,3	69,0	49,2
1650-1700	60,8	65,9	44,9

Given that adverbial clauses and (non-restrictive) relative clauses generally provide presupposed background information against which assertions can be made, this difference is not surprising.

4.3.3.3 Non-parallel coordination ellipses

This subsection finally addresses the so-far neglected case of non-parallel auxiliary ellipsis in coordinations. We will see that the pragmatic backgrounding potential of the auxiliary ellipses becomes even clearer if we look at the non-parallel coordination ellipses. Of course, it is a question if the explanation developed above can be extended to the non-parallel coordination ellipses of finite auxiliaries especially in main clauses as well. I would like to claim that this is indeed the case. It has often been noted in the literature that not all coordinations are symmetric (cf. e.g. Höhle (1990), Büring and Hartmann (1998)). Rather, while the conjuncts are still syntactically/formally parallel, they show signs of dependency between them. The following is an example of what Foley and Van Valin (1984:242) call cosubordination.[44] An important feature is that the order of the conjuncts cannot be reversed.

(55)   a.   She fell on the stairs and broke a leg.
        b.   *She broke a leg and fell on the stairs.

Turning to the non-parallel auxiliary ellipses in coordinations in EMG, we find that 88% of them in the corpus on which this research is based have this property. Take the following example, which is an asymmetric coordination

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[44] Their typology of clause-linkage types is based on the two parameters of syntactic embedding and semantic/pragmatic dependency and looks as follows:
coordination = [−dependent,−embedded],
subordination = [+dependent,+embedded],
cosubordination = [+dependent, −embedded].

with a subject gap in the second conjunct exactly as discussed by Höhle (1990) and Büring and Hartmann (1998).

(56)   vnd die drey gebrüder **sein** auf solch ersüchen khumen/ vnd [_]
         and the three brothers are   on such request   come   and [have]
         das gepiet zwischen einander   außgetailt
         the area   among   eachother divided
         'On such request, the three brothers came and divided the land among
         them'

(Herberstein (1558;2^v,34-35))

We can assume that (57) with the reverse order of the conjuncts – just as in Present-day German – did not make much sense.

(56)′   *vnd die drey gebrüder [haben] das gepiet zwischen einander außgetailt
         / vnd sein auf solch ersüchen khumen

It seems thus that in these asymmetric coordinations, one event is temporally or causally/ consecutively dependent on the other. My claim is that this dependency is expressed by the ellipsis of the finite auxiliary. Cristofaro (2003) gives the following Italian example of such asymmetric coordination where the dependent event is realised with less morphological markers of finiteness categories, just as in subordination.[45]

(57)   È   uscita   da   casa, **prendendo**
         AUX.PRES.IND.3SG *go.out*.PAST.PTCP.FEM *from home take*.GER
         poi   l'autobus.
         then ART.*bus*
         'She left home and then took the bus'[46]

(Cristofaro 2003:59)

Furthermore, 52.2% of all the non-parallel auxiliary ellipses in coordinations in my corpus are such that there is no auxiliary overt in any of the conjuncts, cf. (58).

(58)   Wie aber   sy die Moabiter am   morgē frü vfbrochē/
         when however they the Moabitans in.the morning early left
         vn̄   die Son̄ vfgangen [_] vnd vff das wasser/ [...] geschinē [_]/
         and the sun risen   [is] and on the water   shone   [has]

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[45] According to her, however, the second clause in (57) is asserted. Still, a temporal dependency obtains between the two clauses, and the gerund could not possibly appear independently.

[46] The abbreviations are Cristofaro's; IND = indicative, PAST.PTCP = past participle, GER = gerund, ART = article.

habind sy   das wasser für bl$\overset{o}{u}$t   anges$\overset{e}{a}$h$\bar{e}$/
have   they the water for blood taken
'When however the Moabitans left early in the morning and the sun
went up and shone on the water, they believed the water was blood.'

(Lavater (1578; 19^v,19-23))

Therefore, even the loosest interpretation of 'deletion under identity' (e.g. 'some
form of auxiliary'), cannot be assumed for the licensing of these cases. As they
are mostly embedded clauses, the licensing conditions discussed in section 4.2
can account for the recovery of their formal features. If the subject is not shared
by the conjuncts, it has to be overt in each conjunct with a new subject, cf. the
example in fn. 34 above. Note that in (58), the whole complex adverbial clause
is in *Vorfeld* position and remember that preposed clauses are non-assertional.
Given these assumptions, we expect to find no auxiliary.

As they are mostly embedded clauses, the licensing conditions discussed for
the afinite construction overlap here. First, the conjuncts are in a tempo-
ral/causal dependency relation among each other. But even the least depen-
dent conjunct is put into background by the embedding clause, which is why
there is no overt auxiliary at all. The dependency analysis follows from the fact
that the ellipsis decreases the number of overtly expressed finiteness features
in a clause, thereby spelling out not only a lack of assertion but also a lesser
degree of spatio-temporal anchoring, as established above.

4.3.4. Summary

In this section, I have claimed that EMG auxiliary ellipsis develops as a for-
mal marker of subordination, following a cross-linguistically widely attested
strategy of deranking subordinate clauses (formally distinguishing them from
independent clauses) by expressing less or no finite categories on the subor-
dinate verb form. The function of this auxiliary drop was argued to be to
pragmatically background a proposition.

This explains why a language would develop such an extra tool for marking
clauses as subordinate if there is already one strategy for doing so, the verb
placement. At this point I would like to come back to the discussion at the end
of chapter 3. It was shown there that the development of the EMG auxiliary
ellipses temporally coincides with changes in text complexity. The increasing
text complexity after 1550 seems to have created a need for a stronger means
of foreground-background structuring; cf. also Admoni (1967). Given our
argument above that there is in fact a correlation between overt marking of
finiteness categories and focus-background structuring of texts, this coincidence
of the twodevelopments is quite suggestive.

Let us return to the two questions formulated in the introduction to section
4.3, (i) why there are never more than 70% of the embedded clauses affected
by the auxiliary drop and (ii) how can the non-parallel coordination ellipses of

auxiliaries in both main end embedded clauses be explained. With respect to the first, there is not much more to say than as a means to mark a clause as dependent, the afinite construction is as optional as embedded V2 or subjunctive mood in indirect speech in Present-day German. As for the question of how to account for the non-parallel auxiliary ellipses in coordinations, I argued that these are in fact not cases of coordination, but asymmetric coordination or cosubordination, that is, one of the clauses is really dependent on the other. Again, the ellipsis of the auxiliary is used to structure events and show their degree of dependency on each other.

4.4. Conclusion

In the present chapter, I proposed answers to the two questions, (i) why is the auxiliary in EMG sometimes omitted and (ii) how is the ellipsis identified and recovered?

With respect to the latter question, I argued in section 4.2 that the tense of the embedded clause lacking the auxiliary is anchored and identified through the complementiser in Fin° (or possibly another head in the C-layer). The actual finiteness of the clause, the fact that it has a subject and can be temporally anchored, was also argued to be a function of the C-layer, as only a complete C+T (or, Fin+T) complex entails that T is 'φ-complete', that is, can license a nominal subject in its Spec, by assigning structural Case. The φ-features of the subject the finite auxiliary would agree with are recovered by the subject valuing the set of φ-features of T. However, having defined the context which makes auxiliary drop possible cannot account for the fact that, even when the ellipsis of finite auxiliaries is most frequent, it never exceeds 70% of all possible cases. If the reason for the auxiliary drop was merely that it was licensed, this optionality would have no explanation.

In section 4.3, I argued that the criterion that determines when use is made of these licensing mechanisms and when the auxiliary is spelt out is pragmatic in nature. Based on Cristofaro's (2003) observation that subordination is cross-linguistically often marked using a deranking strategy – often one which means to express less finiteness categories –, it was argued that auxiliary ellips is such a deranking strategy. It is one of the means EMG had to express dependency of a clause. The dependency of a clause is morphosyntactically coded in the feature [−AST] on the clause-typing head Force and has to be made visible by Fin° or be mediated by it. The means to make [−AST] visible in EMG are (a) an overt complementiser inducing verb-end order, (b) subjunctive mood, and (c) auxiliary ellipsis, the latter depending on a complementiser and verb-end order. It was shown that auxiliary ellipsis can only occur in non-assertive clauses, which are furthermore either backgrounded in the discourse or form indirect or reported information. Therefore, the ellipsis of the finite auxiliary in embedded clauses is a means of expressing a reduced degree of 'actualisation' or spatio-temporal anchoring of the event in question.

The same was argued to hold in cases of non-parallel ellipsis of the finite auxiliary in coordinations, where the dependent event is construed in spatio-temporal dependency of the other event. The factors for uncoordinated and coordinated ellipsis overlap in cases of non-parallel auxiliary drop in coordinations where no auxiliary is overt in any conjunct. These cases appear only in embedded clauses.

Concluding summary

The goal of this thesis was to investigate the diachronic and synchronic aspects of the phenomena of auxiliary ellipsis in later Early Modern German (EMG) and older Modern German. Auxiliary drop in EMG encompasses two empirical ranges of phenomena, the so-called afinite construction and non-parallel ellipses of finite auxiliaries in coordinations. The afinite construction is an ellipsis of the finite auxiliary (perfect, passive, etc.) in an embedded clause, cf. (1). Non-parallel ellipsis of finite auxiliaries in coordinations is also frequent in, but not restricted to, embedded clauses, cf. the (asyndetic) coordination of two main clauses shown in (2).[1]

(1)   do   jm Brutus erzalt wie er ein vnghür gsǎhē [_]   /
       when him Brutus told   how he a   monster seen [had]
       'when Brutus told him that he had seen a monster'

                                              (Lavater (1578; 12r,17-18))

(2)   weren wir komēn gein Monsebick   so   weren wir all hungers
       were we come into Moçambique then were we all of.hunger
       gestorben   [_]   auch schiff vnd gut   verloren/
       died   [and] [had] also ship and assests lost
       'Had we come to Moçambique, we would have starved to death and would have lost our ship and assets as well'

                                              (Springer (1509; C4^a,16-18))

The analysis of a corpus of 30 texts from later EMG and older Modern German revealed that the historical development of the afinite construction shows a curious pattern as compared to other syntactic changes described in the lit-

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[1] (2) is an asyndetic coordination, that is, the conjunction *und* 'and' is missing. It is still a coordination of 'we would have starved to death' and '[we] would have lost our ship and assets as well'.

erature. After a relatively short period of rise and spread, the construction disappears from use in almost all auxiliary types apart from present perfect auxiliaries within just a few decades. It only survives in a very restricted stylistic niche. The rise and spread of the construction proceeds along a trajectory familiar from other processes of syntactic change, e.g. the rise of *do*-support in the history of English described by Kroch (1989). The disappearance however happens very quickly and abruptly, and does not show the typical S-shape in the frequency curve over time. Because the two processes of rise and fall of the afinite construction are likely to have different causes, I proposed to treat them as two separate phenomena.

As the rise of the afinite construction behaves like other syntactic changes which have been shown in the literature to be the reflex of underlying changes in the settings of formal parameters, I explored the possibility of such an explanation for this development. As the underlying parametric change in question, I isolated the loss of subjunctive mood as the morphological realisation of the feature [−AST] (assertion), the specification of the clause-typing head Force in subordinate clauses. This change was argued to have triggered shifts in the inventory of complementisers and the fixation of sentence-final verb placement as unambiguous marks of embedding. The afinite construction was argued to be parasitic on these developments, because they create the licensing environment for the ellipsis and therefore are necessary input conditions.

The rapid disappearance of the afinite construction was attributed to a stylistic change resulting in a reduction of text complexity. Text complexity was shown to increase steadily until ca. 1650 and to reduce again thereafter. As a mark of embedding, the afinite construction was argued to have helped the structuring of complex texts, and this need became less strong again when text complexity decreased. It was conceded that the rise in text complexity may also have played a role in the emergence of the afinite construction, certainly in its spread, but it was stressed that the parametric changes had to create the background conditions for the ellipsis first.

The function of auxiliary ellipsis as marking clausal dependency was also the main topic of chapter 4, in which the synchronic aspects of EMG auxiliary drop – the licensing conditions – were addressed. I first explored a formal account of the afinite construction building on but extending Julien's (2002) account of Swedish finite *ha*-omission in embedded clauses. My extensions are the following.

1. Temporal anchoring of TP and partially also recovery of 'speech' time (the highest time) is achieved by C/Fin
2. C also plays an important role in licensing an overt subject, which is needed as a flag to identify the gap. This follows from the assumption (Chomsky 2001) that T can only host a subject in its Spec if it is ϕ-complete, and this is only the case if T is selected by C, which is always ϕ-complete.

Accordingly, the information that a clause is finite is always recoverable through its C-system. However, any formal account of the licensing conditions on the afinite construction is problematically faced with the optionality of the construction. Furthermore, while the non-parallel auxiliary ellipses in subordinate clauses could be subsumed under the account for the non-coordinated afinite construction, this is not possible for the non-parallel auxiliary ellipses in main clauses. In section 4.3, I therefore turned to the pragmatic aspects of the auxiliary ellipsis.

The background for this is Rizzi's (1997) proposal of a split CP-domain with a clause-typing head Force forming the interface to the higher context of a clause and a head Fin facing inside, connecting to the inflectional domain of the clause. Being the target of verb movement or host of complementisers, I proposed to understand Fin, the lowest head of the C-domain, as an illocutionary force indicator (Searle 1969), because it spells out the specifications of the head of ForceP by morphological, lexical, or syntactic means. As already in chapter 3, it was assumed that Force bears a feature [±AST], and that this feature always has to be made visible in (Early Modern) German, not only its marked value [+AST] (the trigger of verb second in main/assertional clauses), but also its unmarked value [−AST]. The latter is normally marked by an overt complementiser, causing sentence-final verb placement, but as argued in section 4.3, a further possibility in (later) EMG was to drop the finite auxiliaries. It was shown that EMG auxiliary drop is restricted to non-assertional clauses (presuppositions, indirect speech, indirect source of knowledge and/or doubted veracity of a reported statement). Similarly, non-parallel auxiliary ellipses in coordinations were argued to be a means to mark the dependent event in a cosubordination. That is to say that under the right pragmatic conditions, the spell-out of the finite auxiliary is optional.

Finally, it was shown that dropping the finite auxiliary from a verbal complex instantiates in fact a cross-linguistically well-attested pattern – the deranking of subordinated clauses by using less finite morphology.

Sources

Adelung, Johann Christoph (1782). *Umständliches Lehrgebäude der Deutschen Sprache, zur Erläuterung der Deutschen Sprachlehre für Schulen.* Facsimile edition 1971. Hildesheim: Olms.

[Andreae (1614-16)] Dülmen, Richard van (1981). Andreae, Johann Valentin. *Fama Fraternitatis* (1614), *Confessio Fraternitatis* (1615), *Chymische Hochzeit: Christiani Rosencreutz. Anno 1459* (1616). Stuttgart: Calwer.

[Augsb. Konf. (1530)] Tschackert, Paul Moritz Robert (ed.) (1901). *Der kritische Text der Augsburgischen Konfession, deutsch und lateinisch, gegenübergestellt dem Textus receptus.* Leipzig.

[Aviso (1609)] (*Aviso: Relation oder Zeitung. Was sich begeben und zugetragen hat / in Deutsch: und Welschland / Spanien / Niederlandt / Engellandt / Franckreich / Ungern / Osterreich / Schweden / Polen / unnd in allen Provintzen / in Ost: und WestIndien etc. Gedruckt im Jahr 1609.*). Schöne, W. (ed.) (1939). *Der Aviso des Jahres 1609.* Faksimile. Leipzig: Otto Harrassowitz.

Bange, Johann (1599). *Thüringische Chronick oder Geschichtbuch (...) anfenglich auss einem alten geschriebenen (...) Exemplar colligirt (...) vnd ferner durch weiland Ern Friderichen Schmidt Pfarherrn zu Grossen Beruingen reuidiert vnd vermehret / dann (...) von andern (...) continuirt. Jetzo aber (...) in Druck geben / durch Johan Bangen Mühlhausen 1599* Printed by Andreas Hantzsch. Mühlhausen.
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/255.html)

Birken, Sigmund von (1668). *Spiegel der Ehren des (...) Erzhauses Oesterreich (...) 1212 anfahend (...) 1519 sich endend. Erstlich vor mer als C*

Jahren verfasset durch (...) Johann Jacob Fugger (...) nunmehr aber (...) aus dem Original neu-üblicher umgesetzet (...) erweitert (...) durch Sigmund von Birken.
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/137.html)

Edlibach, Gerold (1485-1486). *Gerold Edlibach's Chronik mit Sorgfalt nach dem Original copirt und mit einer gleichzeitig verfertigten Abschrift genau verglichen und aus derselben vermehrt und ergänzt von Joh. Martin Usterj*
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/213.html)

Eschenloher, Marcus (1678). *Medicus evcharistico-augustanus, oder goettlicher Augspurgischer Artzt. (...). Durch R.P. Marcum Eschenloher, gedachten Orths (...) Priestern*
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/227.html)

[Eyb (1472)] Geck, Elisabeth (ed.) (1966). *Ehebüchlein von Albrecht von Eyb; Faksimile der Originalausg. von Anton Koberger, Nürnberg 1472.* Wiesbaden: G. Pressler

[Fischart (1590)] Alsleben, A. (ed.) (1891). *Johann Fischarts Geschichtsklitterung (Gargantua).* Halle: Niemeyer.

[Fortunatus (1507)] Roloff, Hans-Gert (ed.) (1981). *Fortunatus. Studianausgabe nach der Editio Princeps von 1507..* Stuttgart: Reclam.

[Geiler (1494)] Bauer, Gerhard (ed.) (1989). *Johannes Geiler von Kaysersberg: Sämtliche Werke.* Vol. I. Berlin/New York: Walter de Gruyter.

Gottsched, Johann Christoph (1736). *Ausführliche Redekunst, Nach Anleitung der alten Griechen und Römer, wie auch der neuern Ausländer; Geistlichen und weltlichen Rednern zu gut, in zweenen Theilen verfasset und mit Exempeln erläutert.* Facsimile edition 1973. Hildesheim: Olms.

Herberstein, Sigmund (1557). *Moscouia der Hauptstat der Reissen / durch Herrn Sigmunden Freyherrn zu Herberstein (...) zusamen getragen (...).* Wien.
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/115.html)

[Herder (1770)] Proß, Wolfgang (ed.) (1978). *Johann Gottfried Herder, Abhandlung über den Ursprung der Sprache. Text Materalien, Kommentar.* München/Wien: Hanser.

[Ickelsamer, Valentinus (1534)] Ickelsamer, Valentinus, *Ein- Teütsche Grammatica [...].* In: Fechner, Heinrich (ed.) (1972). *Vier seltene Schriften des sechzehnten Jahrhunderts. Mit einer bisher ungedruckten Abhandlung über*

Valentinus Ickelsamer von Friedrich Ludwig Karl Weigand. Hildesheim: Olms.

[Kepler (1604)]. Caspar, M. (ed.) (1938). *Gesammelte Werke. Band 1.* München; 393-399.
(http://staff-www.uni-marburg.de/~gloning/1604kpgb.htm)

Klopstock, Friedrich Gottlieb (1754). "Von der heiligen Poesie". In: Höpker-Herberg, Elisabeth (ed.). Klopstock, Friedrich Gottlieb, *Der Messias.* Stuttgart: Reclam; 114-127.

Lamprecht (1737). "Alfonso und Alcina". In: "Der Menschenfreund" (1737-1739) (weekly periodical);
(http://gutenberg.spiegel.de/lamprech/erzaehlg/Druckversion_alcina.htm)

Lavater, Ludwig (1578). *Von Genspãnsten Vnghüren / Faelen / vn anderen wunderbare Dingen (...) kurtzer vnd einfaltiger Bericht / gestelt durch Ludwigen Lauater Diener der Kirchen zuo Zürych.* Zürich
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/215.html)

[Luther (1520)] Wölfel, Eberhard (ed.) (1961). *Martin Luther, An den christlichen Adel Deutscher Nation (Wittenberg, Melchior Lotter, 1520).* München: Johann Froben Verlag.

Moscherosch, Hans Michael (1650). *Gesichte Philanders von Sittewald.* Printed by Johann Philipp Mülbe. Strasbourg.
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/237.html)

[Opitz (1624)] Sommer, Cornelius (ed.) (1970). Martini Opitii Buch von der Deutschen poeterey. Stuttgart: Reclam.

Rauwolf, Leonhart (1582). *Leonharti Rauwolfen / der Artzney Doctorn / vnd bestelten Medici zuuo Augspurg. Aigentliche Beschreibung der Raiß / so er (...) inn die Morgenlaender (...) selbs volbracht.*
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/125.html)

[Schäferey (1642)] Kaczerowsky, Klaus (ed.) (1970), *Die verwüstete vnd verödete Schäferey.* Reinbeck: Rowohlt.

Schorer, Christoph (1660). *Memminger Chronick(...) durch Christoph Schorern / der freyen Künsten vnd der Artzney D. Fürstl. Würtenbergis. Mümpelgartischen Rath / vnd bestellten Physicum zu Memmingen.*
(http://www.ikp.uni-bonn.de/dt/forsch/fnhd/127.html)

[Schottel (1663)] Hecht, Wolgang (ed.) (1967). *Ausführliche Arbeit von der Teutschen HaubtSprache.* Facsimile Print. Tübingen: Niemeyer.

[Springer (1509)] Schulze, Franz (ed.) (1902). *Balthasar Springers Indien-fahrt 1505/1506. Wissenschaftliche Würdigung der Reiseberichte Springers zur Einführung in den Neudruck seiner "Meerfahrt" vom Jahre 1509.* Strassburg: Heitz.

[Tepl (1482)] Hammerich, Louis Leonor and Günther Jungbluth (eds.) (1951), *Johannes von Tepl. Der Ackerman. Bibliographie. Philologische Einleitung. Kritischer Text mit Apparat. Glossar.* Kobenhavn: Munksgaard.

[Wyle (1478)] Keller, Adelbert von (ed.) (1861), *Translationen von Niclas von Wyle.* Stuttgart; 7-12.
(`http://staff-www.uni-marburg.de/∼gloning/wyl_trvo.htm`)

Corpus results

B.1. Background assumptions

As discussed in chapter 1, the main problem of historical linguistics research is the right choice of witnesses. Depending on the particular choice of texts for the corpus, different results are likely to be obtained, due to the variation between individual texts. This variation can only be neutralised by considering as many texts as possible, and by controlling for the influence of variables such as gender, profession/education or dialect of the authors. In chapter 3, we have seen that the ellipsis of finite auxiliaries correlates with the complexity of sentence and text construal and in chapter 4, that it is furthermore determined by pragmatic factors.

Therefore, it is impossible to determine whether the variation between the chosen texts results from a difference in the I-languages of the authors or whether it is a function of the text type/style, and thus the rather free variation in the E-language (cf. chapter 1). Although it is a potential methodological problem from a statistic point of view, I chose to group five authors into groups of 50 years (cf. chapters 3 and 4), despite the sometimes considerable variation among the members of a group. Technically, we are therefore not able to generalise the results obtained, talking about the EMG period as such, but only individual authors (cf. chapter 1). However, given the EMG auxiliary ellipses are a pragmatic choice, variation is expected. Perhaps, then, the distributions found in our highly restricted corpus are not so far from what we would have found in a larger population. Furthermore, striving for homogeneity in building the corpus by leaving out 'deviant' texts would have meant an unacceptable restriction, as obviously, variation existed in the entire population. As a last point, I would like to direct the reader's attention to the studies of Admoni (1967) and Härd (1981), who obtained very similar results on the basis of en-

tirely different selections of texts.[1] I hope these remarks are able to justify my choice and my methods.

In what follows, I will always give the results for all authors individually, while in the main text, I have only cited the aggregated 50-year-groups of five authors, (perhaps wrongly) abstracting away from dialect and idiolect.[2]

B.2. Numbers

The following table gives the number of occurrences of auxiliary ellipses for every text, as well as the approximate total number of words per text.

author	words	occ.	author	words	occ.
Eyb 1472	9200	4	Kepler 1604	2600	58
Wyle 1478	1800	2	Aviso 1609	10400	287
Tepl 1482	10232	2	Andreae 1614-16	17000	433
Edlibach 1486	11000	8	Opitz 1624	9000	51
Geiler 1494	7800	3	Schäferey 1642	6600	101
Fortunatus 1507	8000	10	Moscherosch 1650	15400	132
Springer 1509	6700	9	Schorer 1660	9900	155
Luther 1520	8900	29	Schottel 1663	22000	38
Augsb. 1530	12000	62	Birken 1668	10200	127
Ickelsamer 1534	6400	15	Eschenloher 1678	8400	244
Herberstein 1557	8100	211	Gottsched 1736	7500	17
Lavater 1578	12390	156	Lamprecht 1737	4500	13
Rauwolf 1582	7400	155	Klopstock 1754	10600	0
Fischart 1590	10000	34	Herder 1770	10900	34
Bange 1599	14300	81	Adelung 1782	7100	3

B.2.1. Clause types

Abbreviations:

obj	–	object relative
subj	–	subject relative
free	–	free relative
adj/prep	–	adjunct/prepositional relative (often continuative relative clauses)
adv	–	adverbial clause
arg	–	argument clause
main	–	main clause

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[1] In Härd's study, based on a large corpus of 141 texts for the period 1450-1800, of course only the verbal complexes with finite perfect auxiliaries (e.g. perfect of *werden*-passive) are relevant for comparison, but the development of auxiliary ellipsis in these closely matches my own findings.

[2] The aggregation was achieved by summing up the counted numbers, upon which the different analyses were then carried out. Grouping several texts of one period together and then comparing the periods as if their results had been generated by the same grammar seems to be a common practice in generative historical linguistics though, cf. e.g. Kroch (1989).

	relative				adv.	arg.	main	SUM
	obj	subj	free	adj/prep				
Eyb 1472	1	1	0	1	1	0	0	4
Wyle 1478	1	0	0	0	1	0	0	2
Tepl 1482	0	0	0	0	2	0	0	2
Edlibach 1486	1	0	0	2	0	4	1	8
Geiler 1494	0	0	0	0	3	0	0	3
Fortunatus 1507	0	2	0	0	5	1	2	10
Springer 1509	0	2	0	0	6	0	1	9
Luther1520	1	1	1	2	12	7	5	29
Augsb. 1530	1	15	2	5	19	19	1	62
Ickelsamer 1534	1	6	1	2	2	2	1	15
Herberstein 1557	16	36	7	16	59	11	66	211
Lavater 1578	10	25	2	3	59	47	10	156
Rauwolf 1582	13	50	2	24	61	4	1	155
Fischart 1590	2	6	1	4	18	3	0	34
Bange 1599	7	17	2	9	31	1	14	81
Kepler 1604	1	9	1	8	30	8	1	58
Aviso 1609	19	46	2	49	80	56	35	287
Andreae 1614-16	61	71	15	70	171	37	8	433
Opitz 1624	9	6	1	9	18	7	1	51
Schaeferey 1642	2	8	4	15	46	24	1	100
Moscherosch 1650	9	21	1	7	66	26	2	132
Schorer 1660	9	32	10	22	55	23	4	155
Schottel 1663	2	5	1	4	19	7	0	38
Birken 1668	12	27	3	14	56	7	8	127
Eschenloher 1678	15	25	1	36	143	18	6	244
Gottsched 1736	2	8	0	0	3	4	0	17
Lamprecht 1737	0	3	0	1	0	9	0	13
Klopstock 1754	0	0	0	0	0	0	0	0
Herder 1770	1	12	0	5	8	8	0	34
Adelung 1782	0	0	1	1	1	0	0	3

Figure B.1.: Auxiliary ellipsis in the different clause types, absolute numbers

	relative		adverbial		argument		main	
	%	total	%	total	%	total	%	total
Eyb 1472	4.7	64	0.0	92	2.2	45	0.0	197
Wyle 1478	4.8	21	6.7	15	0.0	9	0.0	12
Tepl 1482	0.0	37	7.4	27	0.0	22	0.0	163
Edlibach 1486	3.5	86	0.0	77	3.7	109	0.9	111
Geiler 1494	0.0	21	8.8	34	0.0	30	0.0	70
Fortunatus 1507	5.3	38	5.7	88	2.4	41	2.7	74
Springer 1509	10.0	20	33.3	18	0.0	9	1.4	73
Luther1520	6.5	77	19.0	63	15.9	51	3.0	164
Augsb. 1530	24.7	93	25.3	75	16.0	119	0.5	202
Ickelsamer 1534	37.4	27	15.4	13	13.3	15	1.6	61
Herberstein 1557	67.6	111	70.2	84	37.9	29	22.4	295
Lavater 1578	36.0	111	45.0	131	49.5	95	3.1	319
Rauwolf 1582	66.4	134	73.5	83	20.0	20	2.2	46
Fischart 1590	31.7	43	42.9	42	20.0	15	0.0	94
Bange 1599	39.3	35	38.6	80	4.8	20	4.8	292
Kepler 1604	79.2	24	75.0	40	40.0	20	2.6	38
Aviso 1609	84.7	137	78.4	102	71.8	78	11.4	307
Andreae 1614-16	81.0	268	75.7	226	46.3	80	5.1	156
Opitz 1624	28.1	89	33.3	54	29.2	24	1.7	59
Schaeferey 1642	61.7	47	82.1	56	70.6	34	1.9	52
Moscherosch 1650	57.6	66	53.3	124	45.6	57	0.9	221
Schorer 1660	76.0	96	78.6	70	69.7	33	2.8	141
Schottel 1663	36.4	33	47.5	40	35.0	20	0.0	106
Birken 1668	61.5	91	60.2	93	22.6	31	5.8	137
Eschenloher 1678	72.6	106	88.8	161	51.4	35	5.7	106
Gottsched 1736	25.6	39	15.8	19	40.0	10	0.0	71
Lamprecht 1737	14.3	28	0.0	14	52.9	17	0.0	75
Klopstock 1754	0.0	27	0.0	19	0.0	15	0.0	60
Herder 1770	41.9	43	14.5	55	33.3	24	0.0	151
Adelung 1782	7.7	26	2.6	38	0.0	10	0.0	51

Figure B.2.: Auxiliary ellipsis in the different clause types, relative numbers

B.2.2. Frequency differences between clause types

In chapter 3, footnote 3, I addressed the question of whether the difference in frequency of the auxiliary ellipsis between the different clause types is statistically significant or not. The following tables gives the result of the χ^2-test I carried out to determine this.[3]

	chi-2	p	s.l.	N
Eyb 1472	0.447	0.490	n.s.	137
Wyle 1478	0.626	0.429	n.s.	24
Tepl 1482	1.699	0.192	n.s.	49
Edlibach 1486	2.888	0.089	n.s.	186
Geiler 1494	2.777	0.096	n.s.	64
Fortunatus 1507	0.663	0.415	n.s.	129
Springer 1509	3.857	0.050	<.05	27
Luther1520	0.575	0.448	n.s.	114
Augsb. 1530	2.563	0.109	n.s.	194
Ickelsamer 1534	0.024	0.877	n.s.	194
Herberstein 1557	9.545	0.002	<.01	113
Lavater 1578	0.435	0.510	n.s.	226
Rauwolf 1582	19.809	0.000	<.001	103
Fischart 1590	2.482	0.115	n.s.	57
Bange 1599	8.877	0.003	<.01	101
Kepler 1604	7.033	0.008	<.01	60
Aviso 1609	1.054	0.305	n.s.	180
Andreae 1614-16	23.482	0.000	<.001	306
Opitz 1624	0.132	0.716	n.s.	78
Schaeferey 1642	1.634	0.201	n.s.	90
Moscherosch 1650	0.905	0.341	n.s.	181
Schorer 1660	0.961	0.327	n.s.	103
Schottel 1663	0.848	0.357	n.s.	60
Birken 1668	13.175	0.000	<.001	124
Eschenloher 1678	27.403	0.000	<.001	196
Gottsched 1736	2.097	0.148	n.s.	29
Lamprecht 1737	10.444	0.001	<.001	31
Klopstock 1754	0.000	1.000	n.s.	34
Herder 1770	3.652	0.056	n.s.	79
Adelung 1782	0.269	0.604	n.s.	48

Figure B.3.: Adverbial vs. argument clauses

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[3] Cf. Butler (1985:ch. 9.4). Abbreviations: s.l. = significance level (for one degree of freedom in this case), n.s. = not significant. The critical value for χ^2 at the .05 level for one degree of freedom (2×2 table) is 3.84.

	chi-2	p	s.l.	N
Eyb 1472	2.121	0.145	n.s.	108
Wyle 1478	0.443	0.506	n.s.	30
Tepl 1482	0.000	1.000	n.s.	59
Edlibach 1486	0.005	0.946	n.s.	195
Geiler 1494	0.000	1.000	n.s.	51
Fortunatus 1507	0.431	0.512	n.s.	79
Springer 1509	0.967	0.326	n.s.	29
Luther1520	1.889	0.169	n.s.	128
Augsb. 1530	2.524	0.112	n.s.	212
Ickelsamer 1534	2.655	0.103	n.s.	42
Herberstein 1557	8.523	0.004	<.01	140
Lavater 1578	3.789	0.052	n.s.	206
Rauwolf 1582	15.675	0.000	<.001	154
Fischart 1590	0.738	0.390	n.s.	56
Bange 1599	9.220	0.002	<.01	110
Kepler 1604	7.059	0.008	<.01	44
Aviso 1609	5.151	0.023	<.05	215
Andreae 1614-16	37.671	0.000	<.001	348
Opitz 1624	0.011	0.917	n.s.	113
Schaeferey 1642	0.689	0.407	n.s.	81
Moscherosch 1650	1.753	0.185	n.s.	123
Schorer 1660	0.519	0.471	n.s.	129
Schottel 1663	0.010	0.920	n.s.	53
Birken 1668	14.053	0.000	<.001	122
Eschenloher 1678	5.387	0.020	<.05	141
Gottsched 1736	0.804	0.370	n.s.	49
Lamprecht 1737	7.694	0.006	<.01	45
Klopstock 1754	0.000	1.000	n.s.	67
Herder 1770	0.472	0.492	n.s.	67
Adelung 1782	0.814	0.367	n.s.	36

Figure B.4.: Relative vs. argument clauses

B.2.3. Auxiliary types

Abbreviations:[4]

prepf	–	present perfect (*Perfekt*)
pstpf	–	past perfect (*Plusquamperfekt*)
wpass	–	progressive passive with *werden*
spass	–	stative passive with *sein*
szuinf	–	modal passive *zu*-infinitive + *sein*
cop	–	copula
hzuinf	–	modal construction *zu*-infinitive + *haben*
werden	–	*werden* (present or past tense) with inifinitve
modal	–	modal verb with inifinitve

	prepf	pstpf	wpass	spass	szuinf	cop	hzuinf	werden	modal
Eyb 1472	2	0	0	0	0	1	1	0	0
Wyle 1478	1	1	0	0	0	0	0	0	0
Tepl 1482	0	0	0	0	0	2	0	0	0
Edlibach 1486	7	0	0	0	1	0	0	0	0
Geiler 1494	2	0	0	0	0	0	0	0	1
Fortunatus 1507	5	4	1	0	0	0	0	0	0
Springer 1509	2	5	0	0	0	2	0	0	0
Luther1520	12	0	4	7	0	6	0	0	0
Augsb. 1530	35	2	7	10	6	2	0	0	0
Ickelsamer 1534	11	0	1	0	0	3	0	0	0
Herberstein 1557	162	21	10	5	0	9	0	0	4
Lavater 1578	104	31	4	7	3	7	0	0	0
Rauwolf 1582	59	22	3	13	19	39	0	0	0
Fischart 1590	13	11	3	1	2	3	0	0	1
Bange 1599	48	22	4	6	0	1	0	0	0
Kepler 1604	46	0	2	1	4	5	0	0	0
Aviso 1609	224	13	11	6	9	23	0	1	0
Andreae 1614-16	277	86	6	25	8	27	1	1	2
Opitz 1624	47	0	0	0	1	3	0	0	0
Schaeferey 1642	30	26	5	6	5	21	2	4	1
Moscherosch 1650	75	24	1	11	13	8	0	0	0
Schorer 1660	107	14	3	5	7	18	0	0	0
Schottel 1663	19	7	0	4	6	2	0	0	0
Birken 1668	45	68	4	3	1	5	0	0	1
Eschenloher 1678	168	48	7	6	7	8	0	0	0
Gottsched 1736	17	0	0	0	0	0	0	0	0
Lamprecht 1737	6	7	0	0	0	0	0	0	0
Klopstock 1754	0	0	0	0	0	0	0	0	0
Herder 1770	27	3	0	3	0	1	0	0	0
Adelung 1782	2	0	0	0	1	0	0	0	0

Figure B.5.: Auxiliary ellipsis with the different auxiliary types, absolute numbers

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[4] The latter three types of auxiliaries are not listed in figure B.6, because their occurrence is too scare and unsystematic.

	prepf		pstpf		wpass		spass		szuinf		cop	
	%	total	%	total	%	total	%	total	%	total	%	total
Eyb 1472	2.9	68	0.0	9	0.0	23	0.0	10	0.0	1	1.5	66
Wyle 1478	8.3	11	14.3	7	0.0	5	0.0	5	0.0	0	0.0	9
Tepl 1482	0.0	35	0.0	2	0.0	11	0.0	7	0.0	0	6.7	30
Edlibach 1486	2.2	137	0.0	28	0.0	24	0.0	24	16.7	6	0.0	31
Geiler 1494	5.6	36	0.0	0	0.0	5	0.0	9	0.0	1	0.0	34
Fortunatus 1507	15.2	33	5.6	72	0.0	13	0.0	10	0.0	3	0.0	33
Springer 1509	40.0	7	25.0	16	0.0	8	0.0	3	0.0	0	8.3	12
Luther1520	19.6	51	0.0	3	11.5	26	28.0	25	0.0	6	5.8	69
Augsb. 1530	29.4	119	40.0	2	17.9	39	21.7	46	54.5	6	1.6	62
Ickelsamer 1534	40.0	25	0.0	1	16.7	7	0.0	3	0.0	0	17.7	17
Herberstein 1557	80.0	125	65.6	32	36.4	22	26.7	15	0.0	0	32.1	28
Lavater 1578	56.0	168	53.4	58	16.7	24	36.8	19	75.0	4	10.1	69
Rauwolf 1582	75.3	77	64.7	34	12.0	25	68.4	19	95.0	20	68.4	57
Fischart 1590	65.0	20	33.3	33	23.1	13	33.3	3	33.3	6	15.8	19
Bange 1599	70.9	55	41.5	53	30.8	13	30.0	20	0.0	0	1.9	53
Kepler 1604	93.9	49	0.0	0	28.6	7	33.3	3	57.1	7	50.0	8
Aviso 1609	95.5	201	92.9	14	43.5	23	54.5	11	80.0	10	53.7	41
Andreae 1614-16	94.4	286	78.2	110	18.2	33	67.7	37	88.9	9	42.2	64
Opitz 1624	55.4	83	0.0	5	0.0	22	0.0	8	16.7	6	7.9	38
Schaeferey 1642	90.9	33	96.3	27	29.4	17	85.7	7	71.4	7	61.8	34
Moscherosch 1650	86.2	87	63.4	41	4.8	21	68.8	16	81.3	16	14.3	56
Schorer 1660	93.9	114	73.7	19	14.3	21	50.0	10	100.0	7	60.0	30
Schottel 1663	95.0	20	100.0	7	0.0	35	50.0	8	87.5	8	14.3	14
Birken 1668	89.6	48	80.5	82	6.3	16	33.3	9	33.3	3	11.8	34
Eschenloher 1678	91.0	178	96.0	50	31.8	22	75.0	8	63.6	11	32.0	25
Gottsched 1736	48.6	35	0.0	3	0.0	5	0.0	2	0.0	0	0.0	19
Lamprecht 1737	60.0	10	43.8	16	0.0	6	0.0	3	0.0	0	0.0	20
Klopstock 1754	0.0	17	0.0	5	0.0	6	0.0	7	0.0	0	0.0	22
Herder 1770	65.9	41	17.6	17	0.0	8	20.0	15	0.0	3	3.0	33
Adelung 1782	28.6	7	0.0	1	0.0	26	0.0	4	100.0	1	0.0	33

Figure B.6.: Auxiliary ellipsis with the different auxiliary types, relative numbers

B.2.4. Frequency differences between the periods

I tested the differences in the frequency distributions for each pair of adjacent periods, for each clause type. A strong/significant increase or decrease is reflected by a large χ^2-statistic.[5]

Periods:

1	–	1450-1500	4	–	1600-1650
2	–	1500-1550	5	–	1650-1700
3	–	1550-1600	6	–	1700-1800

adverbial clauses

Period	chi-2	p	s.l.	N
1 vs 2	27.958	0.000	<.001	502
2 vs 3	91.626	0.000	<.001	677
3 vs 4	30.984	0.000	<.001	898
4 vs 5	0.857	0.355	n.s.	966
5 vs 6	169.440	0.000	<.001	633

relative clauses

Period	chi-2	p	s.l.	N
1 vs 2	23.858	0.000	<.001	484
2 vs 3	113.902	0.000	<.001	689
3 vs 4	20.773	0.000	<.001	999
4 vs 5	4.660	0.031	<.05	957
5 vs 6	91.162	0.000	<.001	555

argument clauses

Period	chi-2	p	s.l.	N
1 vs 2	18.146	0.000	<.001	450
2 vs 3	34.581	0.000	<.001	414
3 vs 4	14.489	0.000	<.001	416
4 vs 5	3.784	0.052	n.s.	413
5 vs 6	7.452	0.006	<.01	252

Figure B.7.: Frequency differences between periods for clause types

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[5] Abbreviations: s.l. = significance level (for one degree of freedom in this case), n.s. = not significant.

present perfect

Period	chi-2	p	s.l.	N
1 vs 2	56.638	0.000	<.001	522
2 vs 3	240.345	0.000	<.001	680
3 vs 4	29.105	0.000	<.001	1097
4 vs 5	4.824	0.028	<.05	1099
5 vs 6	132.795	0.000	<.001	557

sein-passive

Period	chi-2	p	s.l.	N
1 vs 2	12.209	0.000	<.001	142
2 vs 3	9.824	0.002	<.01	163
3 vs 4	3.382	0.066	n.s.	142
4 vs 5	0.006	0.938	n.s.	117
5 vs 6	18.040	0.000	<.001	82

past perfect

Period	chi-2	p	s.l.	N
1 vs 2	3.410	0.065	n.s.	143
2 vs 3	43.999	0.000	<.001	307
3 vs 4	32.831	0.000	<.001	366
4 vs 5	0.034	0.854	n.s.	355
5 vs 6	54.856	0.000	<.001	241

werden-passive

Period	chi-2	p	s.l.	N
1 vs 2	10.340	0.001	<.001	161
2 vs 3	3.508	0.061	n.s.	190
3 vs 4	0.040	0.842	n.s.	199
4 vs 5	4.032	0.045	<.05	217
5 vs 6	7.313	0.007	<.01	166

copula

Period	chi-2	p	s.l.	N
1 vs 2	5.301	0.021	<.05	363
2 vs 3	27.447	0.000	<.001	419
3 vs 4	12.564	0.000	<.001	411
4 vs 5	10.773	0.001	<.001	344
5 vs 6	35.218	0.000	<.001	286

sein+zu-infinitive

Period	chi-2	p	s.l.	N
1 vs 2	1.864	0.172	n.s.	23
2 vs 3	7.200	0.007	<.01	45
3 vs 4	1.020	0.313	n.s.	69
4 vs 5	0.420	0.517	n.s.	84
5 vs 6	4.601	0.032	<.05	49

Figure B.8.: Frequency differences between the periods for auxiliary types

B.2.5. Coordination types

Abbreviations:

uncoord	–	ellipsis in uncoordinated clause
reg.overt	–	parallel ellipsis; identical auxiliary dropped, overt in one conjunct, still neither Gapping nor RNR
reg.covt	–	parallel ellipsis; identical auxiliary dropped, covert in all conjuncts, neither Gapping nor RNR
n.par.ov	–	non-parallel ellipsis; different (form of) auxiliary from overt one dropped, in one conjunct overt
n.par.cov	–	non-parallel ellipsis; different auxiliary dropped in all conjuncts

	uncoord	reg.overt	reg.covt.	n.par.ov.	n.par.cov
Eyb 1472	2	0	0	2	0
Wyle 1478	2	0	0	0	0
Tepl 1482	0	0	0	2	0
Edlibach 1486	2	0	0	6	0
Geiler 1494	2	0	0	1	0
Fortunatus 1507	6	2	2	0	0
Springer 1509	7	0	0	2	0
Luther1520	12	3	6	8	0
Augsb. 1530	41	0	4	15	2
Ickelsamer 1534	14	1	0	0	0
Herberstein 1557	103	20	23	35	30
Lavater 1578	101	12	13	15	15
Rauwolf 1582	126	3	15	9	2
Fischart 1590	28	0	5	1	0
Bange 1599	53	8	12	8	0
Kepler 1604	35	0	5	10	8
Aviso 1609	185	9	28	30	35
Andreae 1614-16	292	1	63	16	61
Opitz 1624	46	0	2	1	2
Schaeferey 1642	73	0	13	2	13
Moscherosch 1650	111	0	13	8	0
Schorer 1660	109	0	19	10	17
Schottel 1663	31	0	7	0	0
Birken 1668	96	1	14	8	8
Eschenloher 1678	124	0	55	9	56
Gottsched 1736	17	0	0	0	0
Lamprecht 1737	11	0	0	0	2
Klopstock 1754	0	0	0	0	0
Herder 1770	25	0	8	1	0
Adelung 1782	3	0	0	0	0

Figure B.9.: Auxiliary ellipsis in the different coordination types, absolute numbers

B.3. Extraposition

The numbers of this and the next section (extraposition and text complexity) were obtained by analysing a smaller excerpt of the corpus, only the first ca. 850 words of every text.

Abbreviations:
# Extrap	–	number of clauses with extraposition
# ExArg	–	number of clauses with extraposition of DP-arguments
# fullRSB	–	number of clauses with full right sentential bracket (i.e., no extraposition)
% Extrap	–	percentage of clauses with extraposition
% ExArg	–	percentage of clauses with extraposition of DP-arguments
Σ	–	sum of all clauses

	# Extrap	# ExArg	#fullRSB	% Extrap	% ExArg	Σ clauses
Eyb 1472	10	6	51	16.4	9.8	61
Wyle 1478	8	6	69	10.4	7.8	77
Tepl 1482	3	1	42	6.7	2.2	45
Edlibach 1486	15	5	63	19.2	6.4	78
Geiler 1494	9	3	101	8.2	2.7	110
Fortunatus 1507	12	3	72	14.3	3.6	84
Springer 1509	4	1	47	7.8	2.0	51
Luther1520	10	0	78	11.4	0.0	88
Augsb. 1530	9	3	33	21.4	7.1	42
Ickelsamer 1534	1	0	61	1.6	0.0	62
Herberstein 1557	3	0	113	2.6	0.0	116
Lavater 1578	1	0	152	0.7	0.0	153
Rauwolf 1582	4	1	84	4.5	1.1	88
Fischart 1590	2	0	82	2.4	0.0	84
Bange 1599	9	6	133	6.3	4.2	142
Kepler 1604	0	0	131	0.0	0.0	131
Aviso 1609	0	0	94	0.0	0.0	94
Andreae 1614-16	2	0	170	1.2	0.0	172
Opitz 1624	0	0	93	0.0	0.0	93
Schaeferey 1642	0	0	59	0.0	0.0	59
Moscherosch 1650	1	0	78	1.3	0.0	79
Schorer 1660	0	0	55	0.0	0.0	55
Schottel 1663	7	3	44	13.7	5.9	51
Birken 1668	0	0	82	0.0	0.0	82
Eschenloher 1678	4	0	72	5.3	0.0	76
Gottsched 1736	0	0	75	0.0	0.0	74
Lamprecht 1737	0	0	128	0.0	0.0	128
Klopstock 1754	0	0	152	0.0	0.0	152
Herder 1770	0	0	95	0.0	0.0	95
Adelung 1782	0	0	96	0.0	0.0	96

Figure B.10.: Extraposition and extraposition of DP-arguments

B.4. Text complexity

Abbreviations:

# emb	–	number of embedded clauses
# main	–	number of main clauses
% emb	–	percentage of embedded clauses (% of all clauses)
# emb-1	–	number of embedded clauses of degree one
% emb-1	–	percentage of embedded clauses of degree one (% of embedded clauses)
Σ	–	sum of all clauses

	# emb	# main	% emb	# emb-1	% emb-1	Σ clauses
Eyb 1472	19	42	31.1	15	78.9	61
Wyle 1478	53	24	68.8	26	49.1	77
Tepl 1482	45	143	23.9	39	86.7	188
Edlibach 1486	78	49	61.4	57	71.8	127
Geiler 1494	110	127	46.4	92	83.6	237
Fortunatus 1507	84	118	41.6	71	84.3	202
Springer 1509	51	93	35.4	42	82.4	144
Luther1520	52	36	59.1	41	78.8	88
Augsb. 1530	37	12	75.5	26	70.3	49
Ickelsamer 1534	63	41	60.6	37	58.7	104
Herberstein 1557	116	83	58.3	91	78.4	199
Lavater 1578	154	86	64.2	97	63.0	240
Rauwolf 1582	88	45	66.2	44	50.0	133
Fischart 1590	47	37	56.0	25	53.2	84
Bange 1599	47	95	33.1	39	83.0	142
Kepler 1604	131	45	74.4	65	49.6	176
Aviso 1609	45	49	47.9	34	75.6	94
Andreae 1614-16	172	109	61.2	117	68.0	281
Opitz 1624	93	36	72.1	50	53.8	129
Schaeferey 1642	42	17	71.2	18	42.9	59
Moscherosch 1650	79	106	42.7	60	75.9	185
Schorer 1660	27	28	49.1	18	66.7	55
Schottel 1663	51	78	39.5	43	84.3	129
Birken 1668	82	64	56.2	61	74.4	146
Eschenloher 1678	76	41	65.0	43	56.6	117
Gottsched 1736	30	44	40.5	26	86.7	74
Lamprecht 1737	44	84	34.4	38	86.4	128
Klopstock 1754	86	66	56.6	65	75.6	152
Herder 1770	64	90	41.6	64	85.9	154
Adelung 1782	61	35	63.5	39	63.9	96

Figure B.11.: Text complexity

B.5. The position of auxiliary-less clauses

The following three tables are the results of counting out the corpus, showing how many (non-) occurrences of auxiliary drop are found in which position.[6]

	pre		relative middle		post	
	y	n	y	n	y	n
Eyb 1472	0	8	0	7	3	39
Wyle 1478	0	1	0	4	1	14
Tepl 1482	1	13	0	5	0	18
Edlibach 1486	0	6	0	30	3	48
Geiler 1494	0	5	0	1	0	13
Fortunatus 1507	0	3	0	7	2	36
Springer 1509	0	1	0	2	2	14
Luther1520	1	2	0	5	3	40
Augsb. 1530	3	4	8	10	10	54
Ickelsamer 1534	1	1	1	2	6	12
Herberstein 1557	20	2	16	7	37	28
Lavater 1578	5	6	12	15	20	56
Rauwolf 1582	2	0	16	11	71	33
Fischart 1590	0	1	4	2	8	29
Bange 1599	4	8	6	6	25	31
Kepler 1604	0	1	5	1	13	5
Aviso 1609	7	3	40	5	57	12
Andreae 1614-16	10	3	43	12	159	40
Opitz 1624	0	3	13	15	13	42
Schaeferey 1642	0	0	7	4	22	14
Moscherosch 1650	3	1	7	2	28	17
Schorer 1660	12	3	10	6	46	19
Schottel 1663	1	8	3	0	7	12
Birken 1668	9	4	5	5	39	27
Eschenloher 1678	1	4	15	7	55	16
Gottsched 1736	0	3	3	3	7	22
Lamprecht 1737	2	3	0	0	2	23
Klopstock 1754	0	5	0	7	0	16
Herder 1770	10	1	3	2	5	12
Adelung 1782	1	2	0	2	1	20

Figure B.12.: Relative clauses

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[6] Abbreviations: pre, middle, post = position of embedded clause w.r.t. embedding clause (preposed, postposed, medially positioned); y = auxiliary ellipsis, n = no auxiliary ellipsis (auxiliary covert).

	adverbial					
	pre		middle		post	
	y	n	y	n	y	n
Eyb 1472	1	36	0	1	0	40
Wyle 1478	1	4	0	4	0	6
Tepl 1482	0	12	0	0	2	14
Edlibach 1486	0	38	0	13	0	43
Geiler 1494	1	16	0	1	2	15
Fortunatus 1507	1	29	0	3	4	30
Springer 1509	3	3	1	2	2	7
Luther1520	3	27	0	0	8	46
Augsb. 1530	7	19	4	1	6	32
Ickelsamer 1534	0	2	1	0	2	11
Herberstein 1557	43	10	2	4	13	18
Lavater 1578	31	17	9	9	16	45
Rauwolf 1582	25	7	12	2	18	21
Fischart 1590	9	6	2	1	6	23
Bange 1599	14	26	3	2	17	18
Kepler 1604	14	5	5	1	10	6
Aviso 1609	37	5	8	2	37	15
Andreae 1614-16	65	8	18	23	83	49
Opitz 1624	2	11	0	5	12	23
Schaeferey 1642	10	3	7	2	30	15
Moscherosch 1650	18	6	6	4	36	38
Schorer 1660	29	5	3	3	21	12
Schottel 1663	9	8	7	1	2	13
Birken 1668	15	11	19	7	19	21
Eschenloher 1678	75	7	7	1	35	9
Gottsched 1736	1	6	0	0	2	12
Lamprecht 1737	0	3	0	0	0	9
Klopstock 1754	0	5	0	3	0	11
Herder 1770	3	20	2	3	3	23
Adelung 1782	0	6	0	3	1	19

Figure B.13.: Adverbial clauses

| | argument | | | | | |
| | pre | | middle | | post | |
	y	n	y	n	y	n
Eyb 1472	0	0	0	0	0	47
Wyle 1478	0	1	0	0	1	11
Tepl 1482	0	1	0	0	1	21
Edlibach 1486	0	0	0	0	6	97
Geiler 1494	0	0	0	0	0	29
Fortunatus 1507	0	1	0	1	1	34
Springer 1509	0	0	0	0	0	9
Luther1520	0	0	0	0	8	31
Augsb. 1530	2	2	0	0	15	102
Ickelsamer 1534	0	1	0	0	2	9
Herberstein 1557	1	0	0	0	10	10
Lavater 1578	0	1	0	0	48	59
Rauwolf 1582	0	0	0	0	4	10
Fischart 1590	0	0	0	0	3	8
Bange 1599	0	0	0	0	1	13
Kepler 1604	0	0	0	0	8	11
Aviso 1609	0	0	1	0	54	24
Andreae 1614-16	1	0	0	0	34	38
Opitz 1624	0	2	0	0	7	16
Schaeferey 1642	2	0	1	0	21	9
Moscherosch 1650	0	0	0	0	20	24
Schorer 1660	1	0	0	0	20	8
Schottel 1663	0	0	2	0	4	11
Birken 1668	1	0	0	1	6	22
Eschenloher 1678	0	0	0	0	16	13
Gottsched 1736	0	0	0	0	4	4
Lamprecht 1737	0	0	0	0	9	11
Klopstock 1754	0	0	0	0	0	13
Herder 1770	1	2	0	0	6	24
Adelung 1782	0	0	0	0	0	7

Figure B.14.: Argument clauses

The following three tables report the results of the correlation analysis.[7] For argument clauses, we observe that there is a total lack of any statistically significant correlation for all authors.

This is expected, because the ratio of the three position types is independent of auxiliary drop, around 97% of the argument clauses are observed to be postposed, the two other position types hardly seem to play any role at all.

For five out of the 30 authors, the correlation of position and auxiliary drop is statistically significant in case of relative clauses, but they are scattered over the whole period under consideration (1450-1800). Also, the ratio of clauses occurring in the three position types is not clearly different for auxiliary drop and overt auxiliaries.

For adverbial clauses, the picture is more clear. In the period from 1550-1600, for four out of five authors, the correlation is statistically significant. In the periods 1500-1550, 1600-1650 and 1650-1700, the correlation is (very highly) statistically significant for one author each. The strength of these correlations influences the results for the aggregated numbers referred to in chapter 4.

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[7] I tested for a statistic correlation between position and auxiliary drop (ϕ-coefficient of correlation) and checked if it is statistically significant (χ^2 statistic), cf. Butler (1985:ch.11). As is customary, a significance level of at least .05 was aimed for. The relevant critical value of χ^2 at the .05 significance level for two degrees of freedom (2×3 table) is 5.99. Again, s.l. = significance level, n.s. = not significant.

Author	phi	chi-2	p	s.l.	N
Eyb 1472	0.000	0.000	1.000	n.s	47
Wyle 1478	0.083	0.090	0.956	n.s.	13
Tepl 1482	0.045	0.048	0.977	n.s.	23
Edlibach 1486	0.000	0.000	1.000	n.s.	103
Geiler 1494	0.000	0.000	1.000	n.s.	29
Fortunatus 1507	0.040	0.059	0.971	n.s.	37
Springer 1509	0.000	0.000	1.000	n.s.	9
Luther1520	0.000	0.000	1.000	n.s.	39
Augsb. 1530	0.191	4.427	0.109	n.s.	121
Ickelsamer 1534	0.135	0.218	0.897	n.s.	12
Herberstein 1557	0.213	0.955	0.620	n.s.	21
Lavater 1578	0.086	0.807	0.668	n.s.	108
Rauwolf 1582	0.000	0.000	1.000	n.s.	14
Fischart 1590	0.000	0.000	1.000	n.s.	11
Bange 1599	0.000	0.000	1.000	n.s.	14
Kepler 1604	0.000	0.000	1.000	n.s.	19
Aviso 1609	0.442	0.438	0.802	n.s.	79
Andreae 1614-16	0.123	1.101	0.577	n.s.	73
Opitz 1624	0.184	0.845	0.655	n.s.	25
Schaeferey 1642	0.194	1.237	0.539	n.s.	33
Moscherosch 1650	0.000	0.000	1.000	n.s.	44
Schorer 1660	0.117	0.395	0.821	n.s.	29
Schottel 1663	0.494	4.156	0.125	n.s.	17
Birken 1668	0.349	3.647	0.161	n.s.	30
Eschenloher 1678	0.000	0.000	1.000	n.s.	29
Gottsched 1736	0.000	0.000	1.000	n.s.	8
Lamprecht 1737	0.000	0.000	1.000	n.s.	20
Klopstock 1754	0.000	0.000	1.000	n.s.	13
Herder 1770	0.094	0.290	0.865	n.s.	33
Adelung 1782	0.000	0.000	1.000	n.s.	7

Figure B.15.: Correlation analysis for argument clauses

Author	phi	chi-2	p	s.l.	N
Eyb 1472	0.141	1.131	0.568	n.s.	57
Wyle 1478	0.132	0.351	0.839	n.s.	20
Tepl 1482	0.214	1.688	0.430	n.s.	37
Edlibach 1486	0.159	2.193	0.334	n.s.	87
Geiler 1494	0.000	0.000	1.000	n.s.	19
Fortunatus 1507	0.107	0.549	0.760	n.s.	48
Springer 1509	0.149	0.419	0.811	n.s.	19
Luther 1520	0.249	3.167	0.205	n.s.	51
Augsb. 1530	0.300	8.036	0.018	<.025	89
Ickelsamer 1534	0.099	0.224	0.894	n.s.	23
Herberstein 1557	0.280	8.639	0.013	<.025	110
Lavater 1578	0.186	3.925	0.141	n.s.	114
Rauwolf 1582	0.116	1.790	0.409	n.s.	133
Fischart 1590	0.359	5.665	0.059	n.s.	44
Bange 1599	0.096	0.738	0.692	n.s.	80
Kepler 1604	0.344	2.954	0.228	n.s.	25
Aviso 1609	0.137	2.341	0.310	n.s.	124
Andreae 1614-16	0.022	0.129	0.938	n.s.	267
Opitz 1624	0.262	5.917	0.052	n.s.	86
Schaeferey 1642	0.022	0.023	0.989	n.s.	47
Moscherosch 1650	0.130	0.974	0.614	n.s.	58
Schorer 1660	0.109	1.148	0.563	n.s.	96
Schottel 1663	0.502	7.805	0.020	<.025	31
Birken 1668	0.100	0.890	0.641	n.s.	89
Eschenloher 1678	0.285	7.986	0.018	yes	98
Gottsched 1736	0.275	2.878	0.237	n.s.	38
Lamprecht 1737	0.351	3.692	0.158	n.s.	30
Klopstock 1754	0.000	0.000	1.000	n.s.	28
Herder 1770	0.558	10.258	0.006	<.001	33
Adelung 1782	0.351	3.198	0.202	n.s.	26

Figure B.16.: Correlation analysis for relative clauses

Author	phi	chi-2	p	s.l.	N
Eyb 1472	0.120	1.122	0.570	n.s	78
Wyle 1478	0.378	2.143	0.343	n.s	15
Tepl 1482	0.240	1.615	0.446	n.s	28
Edlibach 1486	0.000	0.000	1.000	n.s	94
Geiler 1494	0.116	0.472	0.790	n.s	35
Fortunatus 1507	0.168	1.894	0.388	n.s	67
Springer 1509	0.264	1.250	0.535	n.s	18
Luther1520	0.068	0.393	0.822	n.s	84
Augsb. 1530	0.379	9.929	0.007	<.025	69
Ickelsamer 1534	0.553	4.892	0.087	n.s	16
Herberstein 1557	0.419	15.830	0.000	<.001	90
Lavater 1578	0.359	16.326	0.000	<.001	127
Rauwolf 1582	0.361	11.106	0.004	<.01	85
Fischart 1590	0.410	7.908	0.019	<.025	47
Bange 1599	0.161	2.075	0.354	n.s	80
Kepler 1604	0.161	1.064	0.587	n.s	41
Aviso 1609	0.196	4.007	0.135	n.s	104
Andreae 1614-16	0.332	27.124	0.000	<.001	246
Opitz 1624	0.265	3.724	0.155	n.s	53
Schaeferey 1642	0.109	0.796	0.672	n.s	67
Moscherosch 1650	0.219	5.185	0.075	n.s	108
Schorer 1660	0.278	5.628	0.060	n.s	73
Schottel 1663	0.556	12.394	0.002	<.01	40
Birken 1668	0.214	4.221	0.121	n.s	92
Eschenloher 1678	0.166	3.672	0.159	n.s	134
Gottsched 1736	0.000	0.000	1.000	n.s	21
Lamprecht 1737	0.000	0.000	1.000	n.s	12
Klopstock 1754	0.000	0.000	1.000	n.s	19
Herder 1770	0.227	2.791	0.248	n.s	54
Adelung 1782	0.127	0.466	0.792	n.s	29

Figure B.17.: Correlation analysis for adverbial clauses

Bibliography

Abraham, W. (1993). "Null Subjects in the History of German: From IP to CP". *Lingua 89*, 117–142.

Ackema, P. and A. Neeleman (2002). "Effects of Short-term Storage in Processing Rightward Movement". In S. Nooteboom, F. Weerman, and F. Wijnen (Eds.), *Storage and Computation in the Language Faculty*, pp. 219–256. Dordrecht: Kluwer.

Adelung, J. C. (1781). *Deutsche Sprachlehre. Zum Gebrauche der Schulen in den Koenigl. Preuß. Landen.* Hildesheim: Olms. Facsimile edition 1971.

Adelung, J. C. (1782). *Umständliches Lehrgebäude der Deutschen Sprache, zur Erläuterung der Deutschen Sprachlehre für Schulen.* Hildesheim: Olms. Facsimile edition 1971.

Admoni, W. G. (1967). "Der Umfang und die Gestaltungsmittel des Satzes in der deutschen Literatursprache bis zum Ende des 18. Jahrhunderts". *Beiträge zur Geschichte der deutschen Sprache und Literatur (Halle) 89*, 144–199.

Admoni, W. G. (1980). *Zur Ausbildung der Norm der deutschen Literatursprache im Bereich des neuhochdeutschen Satzgefüges (1470-1730).* Berlin: Akademie-Verlag.

Admoni, W. G. (1990). *Historische Syntax des Deutschen.* Tübingen: Niemeyer.

Åfarli, T. A. (1996). "Dimensions of phrase structure: the representation of sentence adverbials". Ms., University of Trondheim.

Aikhenvald, A. Y. (2004). *Evidentiality.* Oxford: Oxford University Press.

Alexiadou, A. (1997). *Adverb Placement. A Case Study in Antisymmetric Syntax.* Amsterdam/Philadelphia: Benjamins.

Andersson, L.-G. (1975). *Form and Function of Subordinate Clauses.* Monographs in Linguistics 1. Department of Linguistics: University of Gothenburg.

Aronoff, M. (1976). *Word Formation in Generative Grammar.* Cambridge/Mass.: MIT Press.

Arsenijević, B. (2003). "Aspectual argument structure". Talk presented at the Grammatical Models Group Staff Seminar, Tilburg University, March 5, 2003.

Axel, K. (2004). "The syntactic integration of preposed adverbial clauses on the German left periphery: A diachronic perspective". In H. Lohnstein and S. Trissler (Eds.), *The Syntax and Semantics of the Left Periphery*, pp. 23–58. Berlin/New York: Mouton de Gruyter.

Behaghel, O. (1928). *Deutsche Syntax. Vol.III: Die Satzgebilde.* Heidelberg: Winter.

Besch, W. (1980). "Frühneuhochdeutsch". In H. Althaus, H. Henne, and H. Wiegand (Eds.), *Lexikon der Germanistischen Linguistik*, pp. 588–597. Tübingen: Niemeyer.

Besten, H. d. (1977). "On the Interaction of Root Transformations and Lexical Deletive Rules". Republished 1989 as chapter 1 in *Studies in West Germanic Syntax*. PhD Diss., University of Tilburg.

Betten, A. (1984). "Veränderungen in Bestand und Funktion strukturverknüpfender Elemente vom Mittlhochdeutschen zum Frühneuhochdeutschen am Beispiel der Tristrant-Fragmente Eilharts von Oberg (12./13.jh.) und der Prosaauflösung (15.jh.)". In H.-W. Eroms, B. Gajek, and H. Kolb (Eds.), *Studia Linguistica et Philologica. Festschrift für Klaus Matzel zum 60. Geburtstag*, pp. 305–316. Heidelberg: Carl Winter.

Betten, A. (1987). *Grundzüge der Prosasyntax.* Tübingen: Niemeyer.

Biberauer, T. and I. Roberts (2004). "Changing epp-parameters in the history of english: accounting for variation and change". To appear. Ms., University of Cambridge; `http://people.pwf.cam.ac.uk/mtb23/NSP/ELL paper.doc`.

Biener, C. (1925). "Von der sog. Auslassung der Kopula in eingeleiteten Nebensätzen". *Die neueren Sprachen 33*, 291–297.

Bierwisch, M. (1963). *Grammatik des deutschen Verbs.* Berlin: Akademie-Verlag.

Bloomfield, L. (1927). "Review of O. Jespersen, *The Philosophy of Language*". *Journal of English and Germanic Philology 26*, 444–446.

Bock, R. (1975). "Zum Gebrauch der gliedsatzähnlichen Konstruktion 'Ersparung der Hilfsverben *haben* und *sein*' in den Flugschriften der Epoche der frühbürgerlichen Revolution". *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung 28*, 560–573.

Brandner, E. (2004). "Head-movement in minimalism, and V2 as FORCE-marking". In H. Lohnstein and S. Trissler (Eds.), *The Syntax and Semantics of the Left Periphery*, pp. 97–138. Berlin/New York: Mouton de Gruyter.

Brody, M. (1993). "Theta-theory and arguments". *Linguistic Inquiry 24*, 1–23.

Büring, D. and K. Hartmann (1998). "Asymmetrische Koordination". *Linguistische Berichte 174*, 172–201.

Butler, C. (1985). *Statistics in linguistics*. Oxford: Blackwell.

Butler, J. (2004). *Phase structure, Phrase structure, and Quantication*. Ph. D. thesis, University of York. `http://semanticsarchive.net/Archive/WY4ZDQ4N/butler_thesis.pdf`.

Cheng, L. L.-S. (1991). *On the typology of wh-questions*. Ph. D. thesis, Massachusetts Institute of Technology.

Chomsky, N. (1965). *Aspects of the Theory of Syntax*. MIT Press.

Chomsky, N. (1981). *Lectures on Government and Binding: The Pisa Lectures*. Foris.

Chomsky, N. (1986). *Knowledge of Language: Its Nature, Origin, and Use*. Praeger.

Chomsky, N. (1995). *The Minimalist Program*. MIT Press.

Chomsky, N. (2000). "Minimalist Inquiries: The Framework". In R. Martin, D. Michaels, and J. Uriagereka (Eds.), *Essays on Minimalist Syntax in Honor of Howard Lasnik*, pp. 89–155. Cambridge/Mass.: MIT Press.

Chomsky, N. (2001). "Derivation by Phase". In M. Kenstowicz (Ed.), *Ken Hale. A Life in Language*, pp. 1–52. Cambridge/Mass.: MIT Press.

Cinque, G. (1999). *Adverbs and Functional Heads*. Oxford University Press.

Cristofaro, S. (2002). "Finiteness in a functional-typological perspective". `http://www.unipv.it/wwwling/paperfinitenessNEW.pdf`.

Cristofaro, S. (2003). *Subordination*. Oxford University Press.

Demirdache, H. and M. Uribe-Etxebarria (2000). "The Primitives of Tempo-
ral Relations". In J. U. Roger Martin, David Michaels (Ed.), *Step by Step:
Essays on Minimalist Syntax in Honor of Howard Lasnik*, pp. 157–187. Cam-
bridge/Mass.: MIT Press.

Demske-Neumann, U. (1990). "Charakteristische Strukturen von Satzgefügen
in den Zeitungen des 17. Jhs.". In A. Betten (Ed.), *Neuere Forschungen zur
historischen Syntax des Deutschen*, pp. 239–252. Tübingen: Niemeyer.

Demske-Neumann, U. (1994). *Modales Passiv und "tough movement": zur
strukturellen Kausalität eines syntaktischen Wandels im Deutschen und En-
glischen.* Tübingen: Niemeyer.

DiSciullo, A. M. and E. Williams (1987). *On the Definition of Word.* Cam-
bridge/Mass.: MIT Press.

Donhauser, K. (1986). *Der Imperativ im Deutschen: Studien zur Syntax und
Semantik des deutschen Modussystems.* Hamburg: Buske.

Drach, E. (1937). *Grundgedanken der deutschen Satzlehre.* Frankfurt/Main:
Diesterweg. [Photomechanically reproduced, Darmstadt, Wissenschaftliche
Buchgesellschaft 1963].

Ebert, R. P., O. Reichmann, H.-J. Solms, and K.-P. Wegera (1993).
Frühneuhochdeutsche Grammatik. Tübingen: Niemeyer.

Ebert, R. P. (1978). *Historische Syntax des Deutschen.* Stuttgart: Metzler.

Ebert, R. P. (1980). "Social and Stylistc Variation in Early New High German
Word Order: The Sentence Frame ('Satzrahmen')". *Beiträge zur Geschichte
der deutschen Sprache und Literatur (Tübingen) 102*, 357–398.

Ebert, R. P. (1981). "Social and Stylistc Variation the Order of Auxiliary and
Nonfinite Verbs in Dependent Clauses in Early New High German". *Beiträge
zur Geschichte der deutschen Sprache und Literatur (Tübingen) 103*, 204–
237.

Ebert, R. P. (1986). *Historische Syntax des Deutschen II: 1300-1750.* Bern /
Frankfurt/M. / New York: Lang.

Ehrich, V. (1992). *Hier und Jetzt.* Tübingen: Niemeyer.

Emonds, J. (1976). *A Transformational Approach to English Syntax: Root,
Structure- Preserving, and Local Transformations.* New York: Academic
Press.

Emonds, J. (2000). *Lexicon and Grammar: The English Syntacticon.* Berlin
etc.: Mouton de Gruyter.

Enç, M. (1987). "Anchoring Conditions for Tense". *Linguistic Inquiry 18*, 633–657.

Engel, U. (1972). "Regeln zur Satzgliedfolge". *Linguistische Studien I:19*, 17–75.

Erb, M. C. (2001). *Finite Auxiliaries in German.* Ph. D. thesis, Tilburg University.

Eroms, H.-W. (1990). "Zur Entwicklung der Passivperiphrasen im Deutschen". In A. Betten (Ed.), *Neuere Forschungen zur historischen Syntax des Deutschen*, pp. 82–97. Tübingen: Niemeyer.

Faarlund, J. T. (1990). *Syntactic Change. Toward a Theory of Historical Syntax.* Berlin etc.: Mouton de Gruyter.

Fleischmann, K. (1973). *Verbstellung und Relieftheorie. Ein Versuch zur Geschichte des deutschen Nebensatzes.* München: Fink.

Fodor, J. D. (1998). "Unambiguous Triggers". *Linguistic Inquiry 27*, 1–36.

Foley, W. A. and R. D. Van Valin (1984). *Functional Syntax and Universal Grammar.* Cambridge/Mass.: Cambridge University Press.

Fries, N. (1983). *Syntaktische und semantische Sudien zum frei verwendeten Infinitiv und zu verwandten Erscheinungen im Deutschen.* Tübingen: Narr.

Fukui, N. and M. Speas (1986). "Specifiers and projection". In N. Fukui, T. R. Rapoport, and E. Sagey (Eds.), *Papers in theoretical linguistics.*, MIT Working Papers in Linguistics, pp. 128–172. Cambridge/Mass.: MIT Press.

Gärtner, H.-M. (2001a). "Are There V2 Relative Clauses in German?". *Journal of Comparative Germanic Linguistics 3*, 97–141.

Gärtner, H.-M. (2001b). "Bound Focus and Assertionality: Evidence from V2-Relatives". Online Proceedings of the Workshop "Formal Pragmatics", Anton Benz (Ed.), `http://www.zas.gwz-berlin.de/mitarb/homepage/gaertner/files/1070512448.pdf`.

Gärtner, H.-M. (2002). "On the Force of V2 declaratives". *Theoretical Linguistics 28*, 33–42.

Geerts, G. (1984). *Algemene Nederlandse Spraakkunst.* Groningen: Wolters-Noordhoff.

Gelhaus, H. (1972). *Synchronie und Diachronie. Zwei Vorträge über Probleme der nebensatzeinleitenden Konjunktionen und der Consecutio temporum.* Bern / Frankfurt a.M.: Lang.

Giorgi, A. and F. Pianesi (1991). "Towards a Syntax of Temporal Representations". *Probus 3*(2), 187–312.

Giorgi, A. and F. Pianesi (1997). *Tense and Aspect. From Semantics to Morphosyntax.* Oxford/New York: Oxford University Press.

Gottsched, J. C. (1736). *Ausführliche Redekunst, Nach Anleitung der alten Griechen und Römer, wie auch der neuern Ausländer; Geistlichen und weltlichen Rednern zu gut, in zweenen Theilen verfasset und mit Exempeln erläutert.* Hildesheim: Olms. Facsimile edition 1973.

Gottsched, J. C. (1759). *Akademische Redekunst, zum Gebrauche der Vorlesungen auf hohen Schulen als ein bequemes Handbuch eingerichtet und mit den schönsten Zeugnissen der Alten erläutert.* Leipzig.

Grewendorf, G. (1995). "Präsens und Perfekt im Deutschen". *Zeitschrift für Sprachwissenschaft 14*, 72–90.

Grewendorf, G. (2002). *Minimalistische Syntax.* Tübingen: Francke.

Grimm, J. (1898). *Deutsche Grammatik. IV: Syntax.* Hg. 1967 von G. Roethe & E. Schröder.

Gumbel, E. (1930). *Deutsche Sonderrenaissance in deutscher Prosa.* Frankfurt/Main.

Habermann, M. (2001). *Deutsche Fachtexte der frühen Neuzeit. Naturkundlich-medizinische Wissensvermittlung im Spannungsfeld zwischen Latein und Volkssprache.* Berlin: Walter de Gruyter.

Haegeman, L. and H. v. Riemsdijk (1986). "Verb Projection Raising, Scope, and the Typology of Rules Affecting Verbs". *Linguistic Inquiry 17*, 417–466.

Haegeman, L. (^{2}1994). *Introduction to Government and Binding Theory.* Oxford: Blackwell.

Hale, K. and S. J. Keyser (1993). "On Argument Structure and the Lexical Expression of Syntactic Relations". In K. Hale and S. Keyser (Eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, pp. 53–109. Cambridge/Mass.: MIT Press.

Härd, J. E. (1981). *Studien zur Struktur mehrgliedriger deutscher Nebensatzprädikate. Diachronie und Synchronie.* Gothenburg: Acta Universitatis Gothoburgensis.

Hartmann, K. (2000). *Right Node Raising and Gapping - Interface Conditions on Prosodic Deletion.* Amsterdam: Benjamins.

Hartweg, F. and K.-P. Wegera (1989). *Frühneuhochdeutsch. Eine Einführung.* Tübingen: Niemeyer.

Hedlund, C. (1992). *On Participles*. Ph. D. thesis, University of Stockholm.

Heine, B. (1993). *Auxiliaries. Cognitive forces and grammaticalization*. New York etc.: Oxford University Press.

Heycock, C. and A. Kroch (1998). "Inversion and Equation in Copular Sentences". In A. Alexiadou, N. Fuhrop, U. Kleinhenz, and P. Law (Eds.), *ZAS Papers in Linguistics 10*, pp. 71–87. Berlin: Zentrum für Allgemeine Sprachwissenschaft.

Hinterhölzl, R. (2004). "Language change versus grammar change. What diachronic data reveal about the distinction between core grammar and periphery". In E. Fuß and C. Trips (Eds.), *Diachronic Clues to Synchronic Grammar*, pp. 131–160. Amsterdam: Benjamins.

Hoekstra, J. F. (1997). *The Syntax of Infinitives in Frisian*. Ph. D. thesis, Fryske Akademy Leeuwarden.

Höhle, T. (1990). "Assumptions about Asymmetric Coordination in German". In J. Mascaró and M. Nespor (Eds.), *Grammar in Progress*, pp. 221–235. Dordrecht: Foris.

Holmberg, A. and C. Platzack (1988). "The Role of Inflection in Scandinavian Syntax". *Working Papers in Scandinavian Syntax 42*, 25–43.

Holmberg, A. and C. Platzack (1995). *The Role of Inflection in Scandinavian Syntax*. New York etc.: Oxford University Press.

Holmberg, A. (2000). "Scandinavian Stylistic Fronting: How Any Category Can Become an Expletive". *Linguistic Inquiry 31*, 445–483.

Hooper, J. B. and S. A. Thompson (1973). "On the Applicability of Root Transformations". *Linguistic Inquiry 4*, 465–497.

Hopper, P. and E. Traugott (1993). *Grammaticalization*. Cambridge: Cambridge University Press.

Hornstein, N. (1990). *As time goes by: tense and universal grammar*. Cambridge/Mass.: MIT Press.

Horn, L. R. (1986). "Presupposition, Theme and Variations". In A. M. Farley, P. T. Farley, and K.-E. McCullough (Eds.), *Chicago Linguistic Society 22. Papers from the Parasession on Pragmatics and Grammatical Theory*, pp. 168–192. Chicago: CLS.

Inkelas, S. (1993). "Nimboran Position Class Morphology". *Natural Language and Linguistic Theory 11*, 559–624.

Johannisson, T. (1945). *Hava och Vara som tempusbildande hjälpverb i de nordiska språken*. Lund: Lunds Universitets årsskrift 41:1.

Johannisson, T. (1960). "Eine syntaktische Entlehnung im Schwedischen". In H. Hartmann and H. Neumann (Eds.), *Indogermanica: Festschrift für Wolfgang Krause zum 65. Geburtstag*, pp. 38–43. Heidelberg: Carl Winter.

Julien, M. (2001). "The Syntax of Complex Tenses". *The Linguistic Review 18/2*, 125–168.

Julien, M. (2002). "Optional *ha* in Swedish and Norwegian". *Journal of Comparative Germanic Linguistics 5*, 67–95.

Kallulli, D. (2004). "Unaccusatives with dative causers and experiencers: a unified account". to appear.

Karttunen, L. (1971). "Some Observations on Factivity". *Papers in Linguistics 5*, 55–69.

Kayne, R. S. (1993). "Toward a Modular Theory of Auxiliary Selection". *Studia Linguistica 47/1*, 3–31.

Kayne, R. S. (1994). *The antisymmetry of syntax*. MIT Press.

Kiparsky, P. and C. Kiparsky (1970). "Fact". In M. Bierwisch and K. E. Heidolph (Eds.), *Progress in Linguistics: A Collection of Papers*, pp. 1–2. The Hague: Mouton.

Klein, W. and H. Vater (1998). "The Perfect in English and German". In L. K. . H. Vater (Ed.), *Typology of Verbal Categories. Papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday*, pp. 215–235. Dordrecht: Kluwer.

Klein, W. (1994). *Time in Language*. London: Blackwell.

Klein, W. (1998). "Assertion and Finiteness". In N. Dittmar and Z. Penner (Eds.), *Issues in the Theory of Language Acquisition: Essays in Honor of Jürgen Weißenborn*, pp. 225–245. Bern: Lang.

Klein, W. (2003). "On Finiteness". In V. V. Geenhoven (Ed.), *Semantics Meets Acquisition*. Dordrecht: Kluwer. http://www.mpi.nl/world/preprint/pdf/106.pdf.

Koopman, H. and D. Sportiche (1991). "The Position of Subjects". *Lingua 85*, 211–258.

Koster, J. (1975). "Dutch as an SOV Language". *Linguistic Analysis 1*, 111–136.

Kratzer, A. (1994). "On External Arguments". In E. Benedicto and J.Runner (Eds.), *Functional Projections*, Volume 17 of *University of Massachusetts Occasional Paper (UMOP) 17*, pp. 103–129.

Kroch, A. (1989). "Reflexes of grammar in patterns of language change". *Linguistic Variation and Change 1*, 199–244.

Kroch, A. (1994). "Morphosyntactic Variation". `www.ling.upenn.edu/~kroch/online.html`.

Kroch, A. (2001). "Syntactic Change". In M. Baltin and C. Collins (Eds.), *The Handbook of Contemporary Syntactic Theory*, pp. 629–739. Malden/Mass.: Blackwell.

Larson, R. (1988). "On the double object construction". *Linguistic Inquiry 19*, 687–720.

Lasnik, H. (1981). "On a lexical parameter in the Government-Binding theory. Markedness and Learnability". *University Massachusetts Occasional Papers in Linguistics 6*, 97–106. Reprinted, with minor revisions, in Lasnik, H. (1990). *Essays on Restrictiveness and Learnability.* Kluwer Academic Publishers.

Lasser, I. (1997). *Finiteness in Adult and Child German.* Ph. D. thesis, City University of New York.

Lass, R. (1997). *Historical Linguistics and Language Change.* Cambridge: Cambridge University Press.

Lenerz, J. (1984). *Syntaktischer Wandel und Grammatiktheorie.* Tübingen: Niemeyer.

Lightfoot, D. (1979). *Principles of diachronic syntax.* Cambridge [etc.]: Cambridge University Press.

Lightfoot, D. (1991). *How to Set Parameters.* Cambridge/Mass.: MIT Press.

Lightfoot, D. (1999). *The Development of Language. Acquisition, Change, and Evolution.* Oxford: Blackwell.

Lightfoot, D. (2002). "Introduction". In D. Lightfoot (Ed.), *Syntactic Functions of Morhphological Change*, pp. x–y. Oxford: Oxford University Press.

Lobeck, A. (1995). *Ellipsis.* Oxford: Oxford University Press.

Longobardi, G. (2001). "Formal Syntax, Diachronic Minimalism, and Etymology: The History of French *Chez*". *Linguistic Inquiry 32/2*, 275–302.

Lühr, R. (1985). "Zur Syntax des Nebensatzes bei Luther". *Sprachwissenschaft 10*, 26–50.

Lühr, R. (1998). "Der Finitheitsfaktor als sprachtypologischer Parameter". *Historische Sprachforschung 111*, 347–368.

Maling, J. M. (1972). "On 'Gapping and the Order of Constituents' ". *Linguistic Inquiry 3*, 101–108.

Marušić, F. and R. Žaucer (2004a). "A case for phonologically null lexical verbs". Talk presented at the 5th SUNY/CUNY/NYU, May 1 2004; `http://www.linguistics.stonybrook.edu/events/konf/sunycunyu04/` `Marusic&Zaucer_null_verbs_04.pdf`.

Marušić, F. and R. Žaucer (2004b). "On phonologically null lexical verbs: GO and beyond". Talk presented at ConSOLE XIII, December 2-4 2004.

Matzel, K. (1987). *Einführung in die singhalesische Sprache*. Wiesbaden: Harrassowitz.

McCawley, J. D. (1981). *Everything that Linguists have Always Wanted to Know about Logic but were Ashamed to Ask*. Oxford: Blackwell.

Meinunger, A. (2004). "Verb position, verbal mood and the anchoring (potential) of sentences". In H. Lohnstein and S. Trissler (Eds.), *The Syntax and Semantics of the Left Periphery.*, pp. 313–341. Berlin/New York: Mouton de Gruyter.

Migdalski, K. (2004). "On two types of perfect tenses in Slavic". Paper presented at ConSOLE XIII at the University of Tromso, Dec. 02-04, 2004.

Migdalski, K. (2005). "To Have or To Be? On the Syntax of Perfect Tenses in South Slavic". In S. Franks, F. Gladney, and M. Tasseva-Kurktchieva (Eds.), *Formal Approaches to Slavic Linguistics: The South Carolina Meeting 2004.*, pp. 230–240. Ann Arbor: Michigan Slavic Publications.

Moser, H., H. Wellmann, and N. R. Wolf (1981). *Geschichte der deutschen Sprache. Vol. 1: Althochdeutsch – Mittelhochdeutsch*. Heidelberg: Quelle & Meyer (UTB).

Nilsen, Ø. (2003). *Eliminating Positions: Syntax and semantics of sentence modification*. Ph. D. thesis, Utrecht University.

Niyogi, P. and R. C. Berwick (1997). "A Dynamical Systems Model for Language Change". *Complex Systems 11*, 161–204.

Nyholm, K. (1981). "Zur Endstellung des Verbs in spätmittelalterlichen und frühhumanistischen Texten". In *Wissenschaftliche Konferenz 'Kommunikation und Sprache in ihrer Entwicklung bis zum Neuhochdeutschen', 26.-27. Sept. 1980, Oulu/Finnland*, pp. 52–64. Berlin (East): Akademie-Verlag.

Oubouzar, E. (1974). "Über die Ausbildung der zusammengesetzten Verbformen im deutschen Verbalsystem". *Beiträge zur Geschichte der deutschen Sprache und Literatur (Halle) 95*, 5–96.

Ouhalla, J. (1991). *Functional Categories and Parametric Variation.* London/New York: Routledge.

Pancheva, R. (2003). "The Rise and Fall of Second-Position Clitics". to appear in NLLT.

Pollock, J.-Y. (1989). "Verb movement, UG and the structure of IP". *Linguistic Inquiry 20*, 365–424.

Ramchand, G. (2004). First Phase Syntax. to appear.

Reichenbach, H. (1947). *Elements of Symbolic Logic.* New York: MacMillan.

Reis, M. (1997). "Zum syntaktischen Status unselbständiger Verbzweit-Sätze". In C. Dürscheid, K. H. Ramers, and M. Schwarz (Eds.), *Sprache im Fokus. Festschrift für Heinz Vater zum 65. Geburtstag*, pp. 121–144. Tübingen: Niemeyer.

Riemsdijk, H. v. (1998). "Categorial Feature magnetism: The Endocentricity and Distribution of Projections". *Journal of Comparative Germanic Linguistics 2*, 1–48.

Riemsdijk, H. v. (2002). "The unbearable lightness of GOing". *Journal of Comparative Germanic Linguistics 5*, 143–196.

Rizzi, L. (1990). *Relativized Minimality.* Cambridge/Mass.: MIT Press.

Rizzi, L. (1997). "The Fine Structure of the Left Periphery". In L. Haegeman (Ed.), *Elements of Grammar*, pp. 281–337. Dordrecht: Kluwer.

Rizzi, L. (2004). "Locality and Left Periphery". In A. Belletti (Ed.), *Stuctures and Beyond*, pp. 223–251. New York/Oxford: Oxford University Press.

Roberts, I. and A. Roussou (2003). *Syntactic Change. A Minimalist Approach to Grammaticalization.* Cambridge: Cambridge University Press.

Ross, J. R. (1969). "Auxiliaries as Main Verbs". In W. Todd (Ed.), *Studies in Philosophical Linguistics*, pp. 77–102. Evanston: Great Expectations.

Ross, J. R. (1970). "Gapping and the Order of Constituents". In M. Bierwisch and K. E. Heidolph (Eds.), *Progress in Linguistics*, pp. 245–259. The Hague: Mouton.

Rutten, J. (1991). *Infinitival Complements and Auxiliaries.* Ph. D. thesis, University of Amsterdam.

Schieb, G. (1970). "Zum Nebensatzrepertoire des ersten deutschen Prosaromans. Die Temporalsätze.". In D. Hoffmann and W. Sanders (Eds.), *Gedenkschrift für William Foerste*, pp. 61–77. Köln/Wien: Böhlau Verlag.

Schieb, G. (1978a). "Relative Attributsätze.". In G. Kettmann and J. Schildt
    (Eds.), *Zur Literatursprache im Zeitalter der frühbürgerlichen Revolution.
    Untersuchungen zu ihrer Verwendung in der Agitationsliteratur*, pp. 441–
    526. Berlin: Akademie Verlag.

Schieb, G. (1978b). "Zum Nebensatzrepertoire des ersten deutschen Prosaro-
    mans. Die Attributsätze.". *Beiträge zur Geschichte der deutschen Sprache
    und Literatur (Halle) 99*, 5–31.

Schildt, J. (1976). "Zur Ausbildung des Satzrahmens". In G. Kettmann and
    J. Schildt (Eds.), *Zur Ausbildung der Norm der deutschen Literatursprache
    auf der syntaktischen Ebene (1470-1730). Der Einfachsatz*, pp. 235–284.
    Berlin (East): Akademie-Verlag.

Schröder, W. (1985). *Auxiliar-Ellipsen bei Geiler von Kayserberg und bei
    Luther*. Abhandlungen der geistes- und sozialwissenschaftlichen Klasse Nr.
    5, Jg. 1985. Stuttgart: Franz Steiner Verlag.

Schrodt, R. (1980). *System und Norm beim Konjunktiv in deutschen In-
    haltssätzen*. Wien: Verlag Karl M. Halosar.

Schrodt, R. (1992). "Von der Diskurssyntax zur Satzsyntax: Reanalyse
    und/oder Grammatikalisierung in der Geschichte der deutschen Nebensätze".
    Folia Linguistica Historica 13, 259–278.

Schwabe, K. and S. Winkler (2003). *The Interfaces. Deriving and interpret-
    ing omitted structures*. Amsterdam/Philadelphia: Benjamins. [Linguistik
    Aktuell/Linguistics Today 61].

Searle, J. R. (1969). *Speech Acts. An Essay in the Philosophy of Language*.
    Cambridge/Mass.: Cambridge University Press.

Selkirk, E. (1982). *The Syntax of Words*. Cambridge/Mass.: MIT Press.

Stammler, W. (1954). *Zur Sprachgeschichte des 15. und 16. Jahrhunderts*.
    Kleinere Schriften zur Sprachgeschichte. Berlin etc.

Starke, M. (1995). "On the Format for Small Clauses".
    `http://ling.auf.net/lingBuzz/000006`.

Starke, M. (2001). "Move dissolves into Merge: a theory of locality".
    `http://ling.auf.net/lingBuzz/000002`.

Stowell, T. (1982). "The tense of infinitives". *Linguistic Inquiry 13*, 561–570.

Stowell, T. (1995). "What do the Present and Past Tenses Mean?". In
    P. Bertinetto, V. Bianchi, J. Higginbotham, and M. Squartini (Eds.), *Tempo-
    ral Reference, Aspect, and Actionality. Vol. I: Semantic and Syntactic Per-
    spectives*, pp. 381–396. Torino: Rosenberg and Sellier.

Stowell, T. (1996). "The Phrase Structure of Tense". In J. Rooryk and L. Zaring (Eds.), *Phrase Structure and the Lexicon*, pp. 1–50. Dordrecht: Kluwer.

Svenonius, P. (1994). *Dependent Nexus. Subordinate Predication Structures in English and the Scandinavian Languages.* Ph. D. thesis, University of California at Santa Cruz. `http://www.hum.uit.no/a/svenonius/paperspage.html`.

Tanaka, T. (2000). "On the development of transitive expletive constructions in the history of English". *Lingua 110*, 473–495.

Thiel, R. (1971). "Die Ersparung des Hilfsverbs". *Sprachpflege 71/7*, 148–150.

Thieroff, R. (1992). *Das finite Verb im Deutschen. Tempus – Modus – Distanz.* Tübingen: Narr.

Wechsler, S. (1990). "Verb Second and Illocutionary Force in Swedish". In E. Engdahl, M. Reape, M. Mellor, and R. Cooper (Eds.), *Edinburgh Working Papers in Cognitive Science vol. 6: Parametric Variation in Germanic and Romance*, pp. 229–244. Edinburgh: Centre for Cognitive Science, University of Edinburgh.

Wechsler, S. (1991). "Verb Second and Illocutionary Force". In K. Leffel and D. Bouchard (Eds.), *Views on Phrase Structure*, pp. 177–191. Dordrecht: Kluwer.

Weijnen, A. (1971). *Schets van de Geschiedenis van de Nederlandse Syntaxis.* Assen: Van Gorcum.

Weinreich, U., W. Labov, and M. I. Herzog (1968). "Empirical Foundations for a Theory of Language Change". In W. P. Lehmann (Ed.), *Directions for Historical Linguistics*, pp. 95–195. Austin: University of Texas Press.

Wilder, C. (1994). "Coordination, ATB, and Ellipsis". In J.-W. Zwart (Ed.), *Minimalism and Kayne's Antisymmetry Hypothesis*, Groningen, pp. 291–329. [Groninger Arbeiten zur Germanistischen Linguistik 37].

Wilder, C. (1996). "V2-Effekte: Wortstellung und Ellipse". In E. Lang and G. Zifonun (Eds.), *Deutsch – Typologisch*, pp. 142–180. Berlin: Mouton de Gruyter.

Wilder, C. (1997). "Some properties of ellipsis in coordination". In A. Alexiadou and T. A. Hall (Eds.), *Studies on Universal Grammar and Typological Variation*, pp. 59–107. Amsterdam: Benjamins.

Williams, E. (1974). *Rule Ordering in Syntax.* Ph. D. thesis, MIT.

Williams, E. (1981). "On the Notions 'Lexically Related' and 'Head of a Word' ". *Linguistic Inquiry 12*, 245–274.

Zeijlstra,   H.   (2004).   *Sentential   Negation   and   Nega-
     tive   Concord.*   Ph.   D.   thesis,   University   of   Amsterdam.
     `http://www2.sfs.nphil.uni-tuebingen.de/B10/seminar/Diss_Zeijl-`
     `stra.pdf`.

Zeller, J. (1994). *Die Syntax des Tempus*. Opladen: Westdeutscher Verlag.

Zwart, C. J.-W. (1997). *Morphosyntax of verb movement : a minimalist ap-
     proach to the syntax of Dutch*. Dordrecht: Kluwer.

Zwart, J.-W. (2000). "A Head Raising Analysis of Relative Clauses in Dutch".
     In A. Alexiadou (Ed.), *The Syntax of Relative Clauses*, pp. 349–385. Philadel-
     phia: Benjamins.

Samenvatting in het Nederlands

In dit proefschrift onderzoek ik de diachrone en synchrone aspecten van de verschillende vormen van hulpwerkwoordellipsis in het Vroegnieuwhoogduits (ca. 1350-1650). Wij hebben hier te maken met twee soorten verschijnselen. Het eerste verschijnsel betreft het weglaten van het verbogen hulpwerkwoord in een bijzin (de zogeheten *afiniete constructie*). Dit is geïllustreerd in (1).

(1)   do jm Brutus erzalt   wie er ein vnghür gsåhē [＿]   /
          toen hem Brutus vertelde hoe hij een monster gezien [had]
          'toen hem Brutus vertelde hoe hij een monster had gezien'

<div align="right">(Lavater (1578; 12r,17-18))</div>

Het tweede verschijnsel is beperkt tot nevenschikkende contexten en kan ook in hoofdzinnen optreden. Het betreft het weglaten van een verbogen hulpwerkwoord in één of meer conjuncten van een nevenschikking dat niet identiek is aan het niet weggelaten hulpwerkwoord in het eerste (of een later) conjunct. Dit verschijnsel wordt in (2) geïllustreerd aan de hand van twee gecoördineerde hoofdzinnen; merk op dat we in het eerste conjunct het hulpwerkwoord *sein* 'zijn' vinden, terwijl het hulpwerkwoord in het tweede conjunct *haben* 'hebben' zou moeten zijn.

(2)   weren wir komēn   gein Monsebick   so   weren wir all
          waren we gekomen naar Moçambique dan waren we allemaal
      hungers   gestorben   [＿]   auch schiff vnd gut
      honger.GEN *gestorven [en] [hadden] ook schip en goederen*
      verloren/
      verloren
      'Als we naar Moçambique waren gekomen, waren we allemaal van honger gestorven en hadden webovendien schip en goederen verloren'

<div align="right">(Springer (1509; C4[a],16-18))</div>

In hoofdstuk 1 geef ik een algemene inleiding, waarin ik de theoretische achtergronden van het proefschrift schets en een eerste bespreking geef van de em-

pirische feiten. In hoofdstuk 2 bespreek ik de literatuur die tot dusver over het thema verschenen is. In hoofdstuk 3 behandel ik vervolgens de diachrone ontwikkeling van de afiniete constructie (de niet-parallelle weglatingen in neven-schikkingen komen pas in hoofdstuk 4 weer aan bod).

Uit een analyse van een corpus van 30 teksten uit het latere Vroegnieuwhoog-duits (1450-1650) en het oudere Nieuwhoogduits (1650-1800) blijkt dat deze ontwikkeling vergeleken met andere syntactische taalveranderingen een inte-ressant patroon vertoont. Na een relatief korte periode waarin het gebruik van de constructie continu toeneemt, verdwijnt deze weer binnen slechts enkele decennia uit het normale taalgebruik. Alleen in een stilistisch sterk beperkte context (hogere of archaïseerende stijl) blijft hij nog enige tijd bestaan. Dit soort omkering van een taalveranderingsproces is vrij zeldzaam en is niet vaak in de literatuur beschreven.

De opkomst en uitbreiding van de afinite constructie volgt een S-vormig traject dat kenmerkend is voor veel taalveranderingsprocessen; we vinden het bijvoorbeeld ook bij de opkomst van de zogeheten *do*-support in het Engels (Kroch 1989). Taalveranderingen van dit type worden beschreven als het gevolg van een verandering in *parameter setting*. Ik geef een soortgelijke verklaring voor de opkomst van de afiniete constructie: de parametrische verandering wordt geïdentificeerd als een verandering in de morfo-syntactische realisatie van het kenmerk [-AST] (afwezigheid van *assertion*) van het zinstype-bepalende hoofd Force°, dat onderschikking signaleert. Concreet gaat het om het verlies van de subjunctief in zijn functie als markeerder van onderschikking. De veran-deringen in de realisatie van het kenmerk [-AST] vormen de 'input conditions' (noodzakelijke voorwaarden) voor de opkomst van de afiniete constructie.

Daarentegen kan het snelle verdwijnen van de constructie niet aan een veran-dering in parameter setting gerelateerd worden, maar dient aan een stilistische verandering gerelateerd te worden: de vermindering van tekstcomplexiteit. Ik laat zien dat de tekstcomplexiteit tot ongeveer 1650 continu toe- en daarna weer afneemt en beargumenteer dat de afiniete constructie, dat zich tot een kenmerk van onderschikking ontwikkelt, als middel ter tekststructurering werd gebruikt. Desalniettemin kan de toename van tekstcomplexiteit niet alleen verantwoordelijk ook voor de opkomst van de ellipsis zijn. De parametrische veranderingen noodzakelijk omdat deze de nodige 'input conditions' tot stand brengen.

In hoofdstuk 4 worden de synchrone aspecten – de voorwaarden waaronder het weglaten van een verbogen hulpwerkwoord gelicenseerd is – besproken. Ook in deze bespreking speelt de functie van de afiniete constructie als markeerder van onderschikking een belangrijke rol. Er zijn twee aspecten belangrijk: (i) de formele kant van de licensering, d.w.z. de vraag hoe de morfosyntactische ken-merken van het weggelaten hulpwerkwoord gereconstrueerd kunnen worden en (ii) de functionele kant, d.w.z. de vraag *waarom* het hulpwerkwoord weggelaten mag worden, maar waarom dat alsnog optioneel lijkt te zijn.

De formele verklaring die ik geef, is gebaseerd op Julien's (2002) beschrijving van de Zweedse *ha*-deletie, maar breidt haar benadering nog iets uit. Beargumenteerd wordt dat de temporele informatie ("spreek"-tijd, de hoogste tijd in een zin) die normaal gesproken door het verbogen hulpwerkwoord uitgedrukt wordt dankzij het C-systeem (het systeem van functionele hoofden aan de linker zinsperiferie) gereconstrueerd kan worden. Het laatste speelt ook een belangrijke rol in de licensering van het subject van de zin dat op zijn beurt de plaats van de deletie markeert. De aannames die in hoofdstuk 4 verdedigd worden leiden tot de conclusie dat de informatie dat een bijzin finiet is, altijd reconstrueerbaar is via het C-systeem.

De formele verklaring van de licensering van de afiniete constructie wordt echter geconfronteerd met het probleem dat deze constructie optioneel blijkt te zijn. Het licenseringsmechanisme zou zonder uitzondering toepasbaar moeten zijn. Ook geeft de formele verklaring geen opheldering over de niet-parallelle hulpwerkwoordellipsis in gecoördineerde hoofdzinnen. Daarom worden ook de pragmatische aspecten van het weglaten van de finiete hulpwerkwoorden in het Vroegnieuwhoogduits onderzocht. Ik beargumenteer dat ellipsis tot niet-assertieve zinnen beperkt blijft, d.w.z. zinnen in de indirecte rede of zinnen waarin een presuppositie uitgedrukt wordt of de juistheid van een bewering in twijfel wordt getrokken. Dit geldt evenzeer voor de afiniete constructie als voor de niet-parallelle ellipsis van een verbogen hulpwerkwoord in een nevenschikking, waar de ellipsis de afhankelijke gebeurtenis signaleert. Dat betekent dat de fonetische realisatie van het hulpwerkwoord onder bepaalde pragmatische condities optioneel is. Er wordt verder beargumenteerd dat het weglaten van het verbogen hulpwerkwoord een voorbeeld is van een cross-linguïstisch meer voorkomende strategie om afhankelijke zinnen te markeren door het gebruik finietheidskenmerken in afhankelijke zinnen te reduceren.