12. The OV-VO alternation in Early German: Diagnostics for basic word order
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Abstract

This chapter discusses a set of theoretical approaches to the OV-VO alternation in Early German (with an emphasis on OHG), focusing on the question of whether it is possible to identify a basic serialization pattern that underlies the 'mixed' word order properties found at the syntactic surface. Based on a review of a set of OV-VO diagnostics, including for example the placement of elements that resist extraposition, properties of verbal complexes, and the significance of deviations from the source text in translations, it is argued that – despite some notable exceptions – OHG exhibits a more consistent verb-final nature than other Early Germanic languages (OE, in particular). This conclusion is supported by the observation that OV qualifies as the unmarked surface word order, which is compatible with a larger set of pragmatic contexts.

Keywords: Old High German, Old English, basic word order, OV, VO, word order variation, extraposition, grammar competition, head parameter, information structure, verb raising, verb projection raising

12.1 Introduction

In traditional works on word order in early Germanic, it is often assumed that languages such as OHG and OE more or less faithfully reflect the basic OV-character of earlier stages such as Proto-Germanic and Proto-Indo-European (cf. e.g. Behaghel 1923–32, Vol. VI). However, it is also well-known that in the very same languages we can observe postverbal placement of all kinds of elements (occupying the so-called post field in both main and embedded clauses), giving rise to a degree of word order variation which is not encountered in their present-day descendants.[1] The examples in (1) illustrate this fact for embedded clauses of OHG:

(1)   a.   (Hic enim post obitum moysi dux effectus principatum obtenuit ...)

Dher selbo infenc   haerduom dhes israhelischin   folches,   [PP adjunct]
that same received   dominion of-the Israeli   people

dhuo ir   dhes leididh   **uuardh**   [after moysises   ablide] ...
when he   their leader   became   after Moses'   death

'that same one received dominion over the people of Israel, when he became their leader after Moses' death ...'

(Isidor 529 – after Axel 2007: 81)

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[1] For OE and ME cf. e.g. Bean (1983); Mitchell (1985); Pintzuk (1996b, 1999); Kroch and Taylor (2000); Fischer et al. (2000); Fuß and Trips (2002); Biberauer and Roberts (2005); Taylor and Pintzuk (2012a, 2012b, 2015). For variation between OV and VO patterns in various historical stages of German cf. Maurer (1926); Behaghel (1923–32, Vol. VI); Borter (1982); Lenerz (1984); Dittmer and Dittmer (1998); Robinson (1997); Prell (2003); Schlachter (2004, 2009, 2012); Hinterhölzl (2004, 2009b, 2014); Axel (2007); Petrova (2009); Schallert (2010); Petrova and Hinterhölzl (2010); Sapp (2011a, 2011b, 2014).

b.   (... et archana secretorum, ut scias)

endi ih   uuilludhazs dhu **firstandes** [heilac   chiruni]   [direct object]

and I   wish that you   understand holy   secret

'... and I wish that you understand the holy secret'

(Isidor 159 – after Axel 2007: 80)

c.   (ut esset deo subiectus)

dhazs ir   chihoric   **uuari** [gote]   [indirect object]

that he   obedient   was   god-DAT

'that he was obedient to God'

(Isidor 491 – after Axel 2007: 81)

d.   (si fuerit oculus tuus simplex)

oba   thin ouga **uuirdit**   [luttar]   [predicative adjective]

if   your eye   becomes   light

'if your eye is good'

(Tatian 153,22 – after Axel 2007: 81)

The examples in (1) illustrate postverbal placement of an adjunct PP, a direct object, an indirect object, and an adjective used predicatively. Similar patterns can be observed in late MHG, as shown in (2) (cf. e.g. Ebert 1980, 1999; Prell 2003; Sapp 2014).

(2)   VO-orders, late MHG (14th century)[2]

    a.   daz   er   sie   **loest**   [von irm   smertzen]   [PP]

       that   he   her   relieves   of   her   pains

       'that he relieves her of her pains'

       (CE 20,15f. – after Ebert 1999: 109)

    b.   da   sie   in   der   werlt   **waz** [ein beginn]   [NP$_{NOM}$]

       since she   in   the   world   was   a   beginning

       'since she was a beginning in the world'

       (CE 22,7 – after Ebert 1999: 109)

    c.   daz   er   in **gibt**   leiden   und   süezzikeit   [NP$_{ACC}$]

       that   he   in-gives   suffering   and   sweetness

       'that he delivers suffering and sweetness'

       (AL 50,17 – after Ebert 1999: 109)

    d.   daz   si   gwalticlich **wider ste** [allen   untugenden]   [NP$_{DAT}$]

       that   she   strongly   resist   all   vices

       'that she strongly resists all vices'

       (AL 31,11 – after Ebert 1999: 109)

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[2] The examples in (2) all come from works of female mystics from the area around Nuremberg

(CE = Christina Ebner (1277–1355), *Der Nonne von Engelthal Büchlein von der Gnaden*

Überlast (44 pages, ed. by Karl Schröder 1871); AL = *Die Offenbarungen der Adelheid*

Langmann, Klosterfrau zu Engelthal (96 pages, ed. by Philipp Strauch 1878)), but similar

examples can be readily found in texts by other authors from other areas.

e. daz ez mich **irret** [minez slafens und ezzens] [NP_GEN]

that it me distract my.GEN sleep.GEN and eating.GEN

'that it distracts me from sleeping and eating'

(CE 42,11f. – after Ebert 1999: 109)

This chapter discusses a set of theoretical approaches to the OV-VO alternation in Early German (with an emphasis on OHG), focusing on the question of whether it is possible to identify a basic serialization pattern (or, structural configuration) that underlies the 'mixed' word order properties found at the syntactic surface. As in much of the literature on the topic, I will use the label OV/VO not only to refer to the relative position of nominal objects but also to describe orderings involving PPs and predicative phrases (as in (1a, d) and (2a)). In traditional accounts, VO orders in the Early Germanic languages are often attributed to extraposition (sometimes also referred to as 'exbraciation') from an OV base, that is, rightward movement of preverbal material targeting the post field (cf. e.g. Stockwell 1977; van Kemenade 1987; Koopman 1990; Lightfoot 1991; Stockwell and Minkova 1991 on OE; Lenerz 1984 and Axel 2007 on OHG; see Sapp 2014 for a recent update and further discussion of VO patterns in MHG and ENHG).[3] However, there are considerable differences between Early German (OHG, in particular) and Modern German concerning both the frequency and scope of this operation, which have led some researchers to propose that relevant SVO patterns should not be analysed as derived orders but rather reflect a head-initial VP (cf. e.g. Haider 2010b and Hinterhölzl 2010 on OHG; Prell 2003 and Haider 2010b

[3] In generative work, extraposition is traditionally modelled in terms of rightward adjunction to VP or IP. In what follows, I will use the term 'extraposition' as a label to refer to the relevant surface word order patterns without committing to a particular theoretical analysis.

on MHG).[4] First, it has been repeatedly pointed out that extraposition was much more common in Early German than it is in Modern German. For example, Fleischer and Schallert (2011: 160) observe that in Notker's late OHG translations, around 40% of the main clauses and between 25%–30% of embedded clauses exhibit material in the post field. Sapp (2014: 147), based on an examination of over 2,300 clauses, estimates that the rate of extraposition in MHG and ENHG is still around 17%, while it has dropped to merely 6% in Modern German (for the latter number, Sapp relies on figures given in Lambert 1976: 137).[5] Moreover, while extraposition seems to apply freely to a wide range of elements (including light NPs as in (1c)) in OHG (with the possible exception of highly topical material, pronominal elements in particular), it primarily affects PPs and heavy constituents (most

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[4] An alternative approach to deriving additional VO patterns in a basic OV grammar is to assume (optional) leftward verb movement to a clause-medial position, cf. Tomaselli (1995) and Weiß (2006) on OHG; Fuß and Trips (2002) on OE; see also ch. 13 below.

[5] It appears that the rate of extraposition declined rapidly in the 16th century. Sapp (2014: 141) observes that in the database he compiled for his study "the frequency of extraposition remains stable from the 12th through the 15th century at around 37–39%, before dropping precipitously in the 16th to less than five percent." Note that the rate of extraposition mentioned in this passage (over 30%) is higher than perhaps expected, as it has been calculated from a corpus for which Sapp selected only clauses with extraposed material, and clauses that contain constituents that can potentially be extraposed. If the complete corpus of over 4,000 clauses (containing many clauses without extraposable material) is taken into account, the 683 instances of extraposition found by Sapp amount to only 16.9% of all cases, which seems to be a more realistic estimate for the rate of extraposition in MHG and ENHG (cf. Sapp 2014: 133).

prominently clausal categories) in Modern German as shown in (3) (cf. e.g. Lambert 1976 and Zifonun et al. 1997: 1651ff.).

(3)   a.   Oskar   hat   bestätigt, [CP   dass Lulu geheiratet hat].

                Oskar   has confirmed   that Lulu married   has

                'Oskar confirmed, that Lulu got married.'

     b.   ?Oskar hat Lulu gesehen [PP in dem Augenblick, als   sie 'Ja' sagte].

                Oskar has Lulu seen   in the   instance   when she yes said

                'Oskar saw Lulu in the instance when she said 'yes'.'

     c.   *Oskar   hat   gesehen [NP Lulu].

                Oskar   has   seen   Lulu.

                'Oskar saw Lulu.'

     d.   *Oskar   ist   geworden [AP rot].

                Oskar   is   become   red

                'Oskar turned red.'

Thus, it appears that in the history of German, there has been a general decrease of VO orders, which affected both the overall frequency of VO patterns and the range of elements that could occur in postverbal position, and eventually led to a consolidation of basic OV order (a reverse change leading to a consolidation of basic VO order took place in the history of English, cf. e.g. Fischer et al. 2000; Pintzuk and Taylor 2006). These facts eventually attracted the attention of a number of theoretical linguists, who pointed out a number of conceptual and empirical shortcomings of the traditional analysis and developed alternative

formal models of the intriguing word order flexibility found in the Early Germanic languages and its subsequent loss (mostly focusing on the history of English).[6]

On the conceptual side, this change of perspective was fueled by a general drive towards elimination of optional movement processes (cf. e.g. Chomsky 1995) and a widespread scepticism concerning the availability of rightward movement (cf. Kayne 1994). In addition, and more importantly, it became clear that there are good reasons to believe that at least in OE, not all instances of surface VO patterns can be attributed to extraposition of underlyingly preverbal material (cf. e.g. Pintzuk 1996b, 1999; Pintzuk and Taylor 2006). First, there are VO patterns in OE involving postverbal prosodically light elements such as object pronouns, monosyllabic adverbs and verbal particles which resist extraposition across Germanic. An example is given in (4).

(4)   he   wolde   adræfan   **ut**   anne   æþeling

      he   would   drive out   a   prince

      'he would drive out a prince'

      (ChronB (T) 82.18–19 (755) – after Pintzuk 1999: 116)

Second, Pintzuk (1996b, 1999) argues convincingly that the rise of VO orders cannot be attributed to an increase in the rate of extraposition, which appears to remain constant during the OE period (see also Pintzuk and Taylor 2006). From these facts, she concludes that basic VO must have been available as a minority pattern in OE.

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[6] Compare Pintzuk (1996b, 1999); Kiparsky (1995, 1996, 1997); Roberts (1997); Kroch and Taylor (2000); Hróarsdóttir (2000a); Fuß and Trips (2002); Hinterhölzl (2004, 2010); Biberauer and Roberts (2005); Haider (2010b, 2014); Schlachter (2012), to name only a few.

Based on these findings, Pintzuk develops an alternative approach that applies the notion of 'grammar competition' (Kroch 1989) to word order variation in OE. More precisely, she assumes that the mixed OV-VO character of OE reflects a situation where speakers had access to a set of competing internalised grammars that differ with respect to the value assigned to the Head Parameter for V and INFL (the so-called Double Base Hypothesis (DBH), cf. e.g. Pintzuk 1996b, 1999 on OE; Trips 2002 on ME; Santorini 1992 on Yiddish; Schlachter 2012 on OHG). According to the DBH, four different base orders/structures are logically possible. These are schematically illustrated by the (partially made-up) OE examples in (5), which are based on (4) above. In addition to purely head-final/head-initial structures ((5a) and (5c), respectively) the DBH also predicts the existence of 'disharmonic' structures, which result from conflicting settings of the head parameter for IP and VP, as in (5b) and (5d).[7,8]

(5)   a. I^0 right, V^0 right: S-O-V-V_{fin}

         (þæt)   he   [$_{I'}$ [$_{VP}$ [$_{VP}$ anne æþeling   ut   adræfan] t_i] wolde$_i$]

         that   he   a   prince   out   drive   wanted

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[7] Alternative analyses of the mixed OV/VO character of Early Germanic that also invoke a lexical head parameter include Rögnvaldsson (1996) and Haider (2010b, 2014), who assume that the head parameter of V is left unspecified in these languages (see also Faarlund 1990 and Schallert 2010).

[8] Option (5d) is not attested in OE and possibly cross-linguistically absent, cf. e.g. Steele (1975); Travis (1985); den Besten (1986a); Hawkins (1990); Dryer (1992); Kiparsky (1996); Holmberg (2000a); Fuß and Trips (2002); Biberauer, Holmberg, and Roberts (2014); see also the papers in Biberauer and Sheehan (2013).

b. I^0 left, V^0 right: S-V_{fin}-O-V

(þæt) he [$_I'$ wolde$_i$ [$_{VP}$ [$_{VP}$ anne æþeling ut adræfan] t$_i$]]

c. I^0 left, V^0 left: S-V_{fin}-V-O

(þæt) he [$_I'$ wolde$_i$ [$_{VP}$ t$_i$ [$_{VP}$ adræfan ut anne æþeling]]]

d. I^0 right, V^0 left: S-V-O-V_{fin}

(þæt) he [$_I'$ [$_{VP}$ t$_i$ [$_{VP}$ adræfan ut anne æþeling]] wolde$_i$]

Following Kroch (1989, 1994), Pintzuk assumes that the kind of linguistic variation observable in Early Germanic is a characteristic trait of morphosyntactic change involving mutually incompatible parametric choices; over time, the variation eventually levels out when one structural option wins out over its competitors. This approach manages to capture the observed variation in terms of multiple base-generated structural options; moreover, it is embedded within a general theory of the connection between linguistic variation and change that integrates insights of William Labov (cf. e.g. Labov 1994) into a generative setting. Still, Pintzuk's analysis has been criticized as conceptually problematic and empirically inadequate (cf. e.g. Hinterhölzl 2004 and Hale 2007). The conceptual critique focuses on the notion of grammar competition (see Hale 2007, in particular) and the use of the traditional Head Parameter (which does not fit well with the assumption that parameters are linked to properties of functional categories, cf. Borer 1984; Ouhalla 1991; Kayne 1994; Chomsky 1995); empirical problems include the (unexpected) absence of the ordering (5d), and the fact that Pintzuk must assume additional operations such as scrambling, verb raising and rightward movement (extraposition) to account for the full range of ordering possibilities found in OE. However, perhaps the most serious shortcoming of Pintzuk's analysis is that it does not seem to have much to say about the observation that the OV-VO alternation appears to be linked to factors such as weight and information-structural status: In Early Germanic,

the preverbal position is preferably occupied by prosodically light and/or inferable/discourse-given entities, while heavy constituents and entities newly introduced into the discourse tend to occur postverbally (cf. e.g. Behaghel 1923–32, Vol. VI; Foster and van der Wurff 1997; Fischer et al. 2000; Schlachter 2004, 2009, 2012; Hinterhölzl 2004; Petrova 2009; Petrova and Hinterhölzl 2010; for a recent re-estimation of the OE facts, cf. Taylor and Pintzuk 2012a, 2012b, 2014, 2015; see also ch. 14 below). It is not immediately clear how these facts can be accommodated by an account that attributes different orderings to different grammars, or competing values of the Head Parameter (but see Schlachter 2012 for a relevant proposal for OHG); they seem to call for an analysis in terms of movement operations that are triggered by discourse-semantic factors (although it is not so clear how (prosodic) weight as a factor governing object placement can be captured along these lines, but see Hinterhölzl 2014 for a relevant proposal).

Recent generative attempts to model the impact of information structure on word order in Early Germanic assume that OE and OHG were so-called discourse-configurational languages, in which word order primarily serves pragmatic functions (e.g. to distinguish old vs. new information), while Modern English, for instance, uses word order primarily to mark syntactic relations (e.g., subject vs. object). The observed linguistic variation is then analysed as resulting from leftward movement of objects and/or verbal projections to designated specifier positions linked to case licensing and the realization of topic/focus, usually adopting Kayne's (1994) Universal Base Hypothesis (i.e., all languages are underlyingly SVO, cf. e.g. Roberts 1997; Biberauer and Roberts 2005 on OE; Hróarsdóttir 2000a on Old Icelandic; Hinterhölzl 2004, 2009b, 2010; Petrova and Hinterhölzl 2010 on OHG; for details, see ch. 14 below). Recently, however, Sapp (2014) has argued convincingly that at least for MHG and ENHG, the traditional analysis of surface VO-orders in terms of extraposition from a head-final VP is basically correct (see also fn. 5 and fn. 31).

Note that the various approaches to the OV-VO alternation in Early Germanic differ with regard to the theoretical status they assign to the notion of 'basic word order'. In generative work on word order variation, the term 'basic word order' is sometimes used to refer to an underlying base order/structural configuration from which the attested set of surface orders can be derived in a most economical way. As already pointed out, approaches invoking extraposition to account for VO patterns simply assume that the relevant base order is OV. In contrast, the Double Base Hypothesis, that is, an analysis in terms of competing base-generated structural options claims that there is more than a single base order. Finally, accounts cast in the Universal Base Hypothesis (Kayne 1994) largely dispense with the idea that the basic (surface) word order of a language corresponds to an underived underlying base order. Rather, it is assumed that both OV and VO are derived orders that result from the (obligatory) application of (different) syntactic movement operations that are triggered by various licensing requirements (case, information-structural distinctions, etc.).

Another use of the label 'basic word order' is widespread in descriptive and typological work, where the term is commonly applied to an unmarked order of elements, which is used e.g. in pragmatically neutral declarative clauses, or is compatible with the largest set of linguistic contexts (cf. Lenerz 1977; Höhle 1986). Note that the identification of the basic word order in this sense is largely orthogonal to the theoretical question of whether the relevant order is base-generated or derived by syntactic operations – it is entirely possible that the unmarked order of elements does not reflect any base-generated configuration but rather results from a parameterised set of syntactic operations that apply obligatorily in each and every sentence of a given language. Still, the notion of basic word order might prove to be theoretically relevant. If we can detect a pattern which is – in contrast to other word order options – accepted in a variety of different contexts and apparently compatible with different pragmatic functions, then we might conclude that there exists indeed a discourse-semantically

'neutral', unmarked word order in Early Germanic and that the OV-VO alternation is not completely determined by discourse-related factors; if that turns out to be true, the hypothesis that the Early Germanic languages were 'discourse-configurational' perhaps cannot be maintained in its strong form. Furthermore, the notion of 'basic word order' might play a role in the theory of parametrization if a number of seemingly unrelated surface properties (e.g., verb raising, adverb placement, scrambling, position of verbal particles etc.) can be plausibly attributed to a single 'macro parameter' (in the sense of Baker 1996, 2001) that is linked to basic serialization properties (cf. e.g. Saito and Fukui 1998). We can thus formulate the following research questions concerning the status of word order variation in the Early Germanic languages:

(6)   Is it possible to identify

    a.   a (underlying) base order from which additional serialization patterns

        can be economically derived?

    b.   a discourse-semantically 'neutral', unmarked surface word order?

Of course, it might well be that the unmarked surface word order corresponds to the underlying base order (as e.g. in early generative work where SOV has been identified as both the underlying and unmarked word order in Early Germanic, cf. e.g. Kemenade 1987 on OE, and Lenerz 1984 on OHG). However, I would like to stress that a definitive answer to those questions is beyond the scope of this chapter, the primary goal of which is to present and discuss methods than can be used to address (6). Of course, the question of which order counts as 'basic' (in the sense of either (6a) or (6b)) should receive an answer based on linguistic arguments and not solely on superficial inspection. This is particularly clear in the case of the Early Germanic languages, which exhibit less consistent word order properties

than their present-day relatives. In what follows, I will therefore review a set of relevant diagnostics that have been suggested in the literature and discuss their application to historical stages of German (see also Schallert 2010).

12.2 OV-VO diagnostics

This section presents a set of diagnostics that can be used to explore the questions in (6). In line with what has been said above, we must distinguish two types of tests that relate to the different interpretations of the term 'basic word order'. Sections 12.2.1–12.2.5 explore criteria for identifying underlying orders/structures, while sections 12.2.6 and 12.2.7 focus on tests that can be applied to determine the unmarked order of elements at the syntactic surface. To avoid confusion, I will use the term 'base order' to refer to the underlying order, while the term 'basic word order' is used refer to the unmarked surface word order. As already hinted at above, the notion 'basic word order' does not imply a certain mode of analysis, including the possibility that the 'basic' serialization of constituents in a clause is actually not a base-generated sequence but rather derived by the application of syntactic movement operations.[9]

12.2.1 Unambiguous cases

In the literature on the OV-VO alternation in Early Germanic, there is general agreement that there are a number of clear-cut cases from which the basic OV or VO character of a language can be deduced (cf. e.g. Pintzuk 1999). These include the relative ordering of verb and auxiliary, and the position of verbal particles. Orders where the finite auxiliary follows the

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[9] Note that it is sometimes difficult to decide on purely empirical grounds whether a given surface ordering corresponds to a base-generated or a derived syntactic representation. See the following sections for further discussion.

non-finite verb as in (7a), or where verbal particles precede the main verb as in (7b) are commonly linked to an OV base. The rationale behind this reasoning is that finite auxiliaries always precede the lexical verb in the Germanic VO languages, which do not permit reordering of elements in the verbal complex. Likewise, OV languages exhibit only preverbal particles, while in the Germanic VO languages, verbal particles generally follow the lexical verb:[10]

(7)   Indicators of an OV base

   a.   (Comp)–S–(XP)–V–Aux–(XP)

   b.   (Comp)–S–(XP)–Prt–V–(XP)

Under the hypothesis that the orders in (7), which are robustly attested in both OE and OHG, signal a basic OV character, material that follows the verb (giving rise to surface VO patterns) must be assumed to have undergone extraposition from an underlyingly preverbal position (cf. e.g. Pintzuk 1999 on OE; Axel 2007 on OHG; Sapp 2014 on MHG and ENHG; but see e.g. Biberauer and Roberts 2005 for an alternative analysis of relevant orders).

   What about properties that unambiguously signal a VO base? Unfortunately, the picture is less clear here. The fact that OV languages generally allow verb raising, that is, reordering of elements in the verbal complex, seems to lessen the value of the order of auxiliary and lexical verb as a diagnostic test for the base order (but see section 12.2.3 below for discussion). Moreover, as already mentioned above, surface VO orders may be the result of a

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[10] But note that English exhibits a residue of quite a number of verbs such as *offset, overcome, outrank, undergo*, etc. which exhibit a preverbal particle-like element that cannot be separated from the verbal part.

stylistic operation placing material in clause-final position (extraposition). However, one might argue that a (uniformly) postverbal placement of particles is a clear indicator of a basic VO character (apart from V2 effects, reordering of verbal particles giving rise to V-Prt is usually not possible in the Germanic OV languages):

(8)   Indicator of a VO base

        (Comp)–S–(Aux)–V–Prt–(XP)

In what follows, I will first discuss a number of additional tests for identifying the base order of elements, including the position of elements that resist extraposition, the properties of periphrastic verbal constructions, the existence of a special class of immobile complex verbs, and the application of quantitative analyses. We are then going to take a closer look at diagnostics for basic word order, focusing on the unmarked serialization of the verb and its complements, and the significance of deviations from word order properties of the source text in translations.[11]

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[11] Note that there is a number of further morphosyntactic properties that have been linked to a head-final VP, including the possibility of scrambling/'free' word order (cf. e.g. Saito and Fukui 1998), the use of case affixes to mark grammatical functions, a strong preference for suffixing inflections (Bybee, Pagliuca, and Perkins 1990; Julien 2002), the licensing of wh-in-situ strategies (cf. Kayne 1994; Julien 2002), and the possibility of final complementizers (cf. e.g. Bayer 1999). These potential diagnostics will not be discussed here, either because they do not apply to Early Germanic (e.g., final complementizers), or because they can also occur with surface VO order and are therefore only of limited use as diagnostics for an OV base (scrambling, wh-in-situ, inflectional suffixes, case marking). Another potential

12.2.2 Elements that resist extraposition

As already briefly mentioned above, the Germanic OV languages do not permit extraposition of prosodically light elements such as pronouns, (verbal) particles, and monosyllabic adverbs, compare the German examples in (9)–(11).[12]

(9) a. dass der Student   sie   im   Kino   **küsste**

         that the student   her in-thecinema   kissed

         'that the student kissed her in the cinema'

    b. *dass der Student im Kino **küsste** sie

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diagnostic test that we will not discuss in detail concerns the position and linear ordering of event-related adverbs (Haider 1993, 2000; Hinterhölzl 2001, 2002). In VO languages such as English, (event-related) adverbs of time, place and manner typically follow the verb in a specific sequence, cf. (ia). In contrast, OV languages like German exhibit the reverse ordering in preverbal position:

(i) a. VO: V – Manner – Place – Time

   b. OV: Time – Place – Manner – V

(ii) a. that Peter worked [carefully] [in the office] [yesterday]

    b. dass Peter [gestern] [im Büro]   [sorgfältig] gearbeitet hat

       that Peter yesterday in-the office carefully   worked   has

[12] Pintzuk's conclusion that pronouns, short adverbs and verbal particles do not undergo extraposition in OE is based on the observation that these elements do not show up in postverbal position in unambiguous OV orders (e.g. orders of the type XP-V-Aux), cf. Pintzuk (1996b, 1999) for details.

(10) a.   dass der   Student   sie   dort/dann/oft   **küsste**

             that   the   student   her   there/then/often   kissed

             'that the student kissed her there/then/often'

     b.   *dass der Student sie **küsste** dort/dann/oft

(11) a.   dass der   Student   auf**steht**

             that   the   student   up-stood

             'that the student stood up'

     b.   *dass der Student **steht** auf

In contrast, these elements may (or must) occur in postverbal position in the Germanic VO languages, as shown by the English translations of (9)–(11). Accordingly, examples like those in (12) have been used as evidence suggesting that VO base order was a structural option in OE (Pintzuk 1996b, 1999).

(12) a.   ...   swa þæt hy   **asettan**   [him] upp   on   ænne sið

                so   that they set   them up   in   one   journey

             '... so that they transported themselves inland in one journey'

             (ChronA 132.19 (1001) – after Pintzuk 1993: 17)

     b.   ...   he   wolde   **adræfan**   [ut]   anne æþeling

                he   would   drive out   a   prince

             '... he would drive out a prince.'

             (ChronB (T) 82.18–19 (755) – after Pintzuk 1999: 116)

c.　þæt　martinus　**come**[þa]　into　þære byrig

　　that　Martin　　came then　into　the　town

　　'that Martin then came into the town'

　　(ÆLS 31.490–491 – after Pintzuk 1993: 17)

However, note that the possibility of particle-shift in VO-languages such as English (Bolinger 1971; Haider 1993; Svenonius 1996; Dehé 2002) complicates the picture:

(13)　a.　Peter tore off the cap.

　　b.　Peter tore the cap off.

On the surface, the result of particle shift is similar to OE examples which Pintzuk (1999) analyses in terms of an OV base + verb movement to a clause-medial INFL-node, where the position of the particle is taken to reflect the base position of the verb:

(14)　þæt　　　he　**wearp$_i$**　[þæt sweord]　**onweg** t$_i$

　　so-that　he　threw　　that sword　　away

　　'so that the threw away the sword'

　　(Bede 38.20 – after Pintzuk 1999: 57)

Moreover, one must take into account that the Germanic VO-languages do not exhibit a uniform behaviour with regard to particle shift. In contrast to English, Swedish requires strict adjacency of verb and particle (cf. e.g. Haider 1997), while in Danish, the shifted order seems to be the only acceptable option (Herslund 1984):

(15) Swedish

    a.   att   han   kastade   bort   mattan

          that   he   threw   out   carpet-the

    b.   *att han kastade mattan bort

          'that he threw out the carpet'

(16) Danish

    a.   *Boris skrev under kontrakten.

          Boris   wrote under contract.DET

    b.   Boris skrev kontrakten under.

          'Boris signed the contract.'

In addition, it is not entirely clear whether particle verbs can receive the same analysis in VO and OV languages (cf. e.g. Haider 1993, 1997; Svenonius 2003 for discussion). However, if we follow Haider (1993, 1997), who argues that particle shift is available only in VO languages, the final position of the particle in examples like (13b) or (16b) does not create a problem for the use of particle placement as a diagnostic test for basic word order. Thus, we arrive at the following conclusions:[13]

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[13] In many OV-varieties, we can observe that verbal particles can shift to the left of a higher (finite) verb in the verbal complex (sometimes called 'cluster creepers', Evers 2003), compare the following examples from Dutch (Neeleman and Weerman 1993: 435):

(i) a. dat Jan het   meisje wil   **op**bellen

    that Jan the   girl want   on-ring

    'that Jan wants to call the girl'

(17) a. The order [non-finite verb – verbal particle] is indicative of a VO base.

b. The order [verbal particle – non-finite verb] is indicative of an OV base.

c. The order [non-finite verb – object – verbal particle] is compatible with both an OV and a VO analysis.

d. The availability of particle shift is indicative of a VO base.

Bearing this in mind, let us now turn to the distribution of light elements in Early German. At first sight, it appears that examples with postverbal pronominal elements can also be found in early OHG texts. This is shown in (18).

(18) a. (et scies quia dominus exercituum misit me ad te*)*

dhazs	uuerodheoda	druhtin	**sendida**	[mih] zi	dir
that	the-armies'	Lord	sent	me to	you

'... that the Lord of Hosts sent me to you'

(Isidor 236)

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b. dat Jan het meisje **op** wil bellen

Similar phenomena can be observed in historical stages of German (cf. Behaghel 1923–32, Vol. VI: 116–117) and present-day dialects (cf. Schallert and Schwalm 2015). Since this type of reordering within the verbal complex seems to be confined to (the Germanic) OV languages, it might be used as another diagnostic for a head-final VP.

b.   (ut subiciam ante faciem eius gentes)

dhazsih   fora   sinemu   anthlutte   **hneige**   [imu] dheodun

that I   before   his   face   subdue   him nations

'... that I might subdue nations before Him'

(Isidor 152)

However, upon closer inspection it becomes apparent that in the above examples, the
word order of the OHG translation is very similar to the word order of the Latin source.
Therefore, cases such as (18) do not constitute clear evidence in favour of the existence of a
VO base order option in OHG.[14] Still, as has been pointed out by Dittmer and Dittmer (1998)
and Schallert (2010), among others, there are some cases where postverbal placement of a
pronominal element (in most cases a reflexive pronoun) cannot be attributed to properties of
the source text. Relevant examples are given in (19) and (20).

(19) (& qui se humiliat exaltabitur)

inti   therthar   **giotmotigot**   [sih] uuirdit   arhában

and   who-there   humbles   REFL will-be   lifted up

'and he who humbles himself will be exalted'

(Tatian 403,19 – after Dittmer and Dittmer 1998: 148)

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[14] Dittmer and Dittmer (1998: 172) count 72 cases where postverbal placement of object
pronouns mimics the Latin word order in embedded clauses of the OHG *Tatian* translation.

(20) a. (si duo ex uobis consenserint super terram de omni re)

oba zuuene fon íu   **gizuftigont** [sih] obar erdu fon iogilicheru rachu

if two   of you.PL.DAT agree   REFL on earth of all   things

'if two of you on earth agree about anything'

(Tatian 331,1–3 – after Dittmer and Dittmer 1998: 161)

  b. (ut diligatis Inuicem)

thaz ir   **minnot** [iuuuih]   untar   zuuisgen

that you.PL.NOM   love   you.PL.ACC   under   each other

'that you love each other'

(Tatian 579,30 – after Dittmer and Dittmer 1998: 161)

In (19), the postposed reflexive pronoun *sih* corresponds to a preverbal element in the

Latin source; in (20), the Latin text does not contain elements corresponding to the pronouns

occurring in postverbal position in the OHG translation. Schallert (2010) argues that

examples similar to (19) and (20) suggest that OHG was characterized by a mixed OV/VO

grammar, similar to OE (see also Haider 2010b, and more recently Haider 2014). However, it

should be pointed out that postverbal placement of pronominal elements is very rare in OHG

and seems to be confined to the earliest translations.[15] In Dittmer and Dittmer's (1998: 172)

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[15] In addition, notice that in the majority of cases with postverbal pronouns, there is additional

material in the post field (e.g. two PPs in 20a)). This might be taken to suggest that examples

like (20) actually involve extraposition of a larger phrase (e.g. a remnant VP) that contains

the reflexive pronoun in addition to other arguments/adjuncts. Note that related phenomena

can be found in present-day German in connection with apparent multiple fronting to clause-

initial position:

work on the OHG *Tatian* translation, they mention only 3 cases lacking a Latin model where an object pronoun occupies a postverbal position in an embedded clause; in contrast, they list 260 embedded clauses where an object pronoun is inserted in or transferred to a preverbal position. In general, there seems to be a strong tendency for pronouns to occupy a position at the beginning of the middle field, very similar to Modern German (see also Hinterhölzl and Petrova 2010, and ch. 8 and 14, this volume).

What about the other light elements that are used by Pintzuk (1999) as a diagnostic for a basic VO configuration? The position of verbal particles supports the conclusion that OHG has an OV base. As pointed out by Axel (2007: 109), "in contrast to Old English, in OHG there are hardly any cases with post-verbal particles attested in subordinate clauses with particle verbs". Similar observations seem to hold with regard to the position of light adverbs such as *thô*, *dhar*, or *nû*. A relevant search conducted in the *Isidor* and *Tatian* (using the TITUS and Kali online corpora, http://titus.uni-frankfurt.de, http://www.kali.uni-hannover.de) did not produce a single example where these light elements follow a non-finite verb, or a finite verb in an embedded clause.[16] Based on the same line of reasoning, Sapp

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(i) ?[Sich   im   Spiegel]   hat   er   gesehen.

       himself   in-the mirror   has   he   seen

    'He saw himself in the mirror.'

[16] In Notker's OHG translations, we can find at least some examples that exhibit postverbal placement of particles characteristic of VO languages, compare the following minimal pair:

(i) a. taz er beiz imo selbemo   **aba** dia   zungûn

        that he bit him self   off the   tongue

        'that he bit off his tongue'

        (Notker, Boethius 91, 3 – after Schallert 2010: 381)

(2014) concludes from the virtual absence of light elements (both short adverbs and pronouns) in post-verbal position that the MHG and ENHG VP was systematically head-final and that there is therefore no evidence for a parametric change from VO (or, mixed VO/OV) to OV after the OHG period (i.e., since about 1150).

12.2.3 Order in the verbal complex

The assumption that V-Aux order is indicative of a basic OV character (see above) goes back at least to the work of Greenberg (1963), who notes that there is a close connection between the basic word order of a language and the relative order of verbal elements (in the verbal complex). In particular, in OV languages, embedded (non-finite) verbs precede the matrix verb, while finite auxiliaries follow the main verb (Universals 13 and 16).[17] Further support for the assumption that a final placement of finite auxiliaries signals an OV base comes from

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    b. ter imo selbemo   dia   zungûn **aba** / beiz

       who him self   the   tongue off bit

       the one who bit off his tongue'

       (Notker, Boethius 16, 12 – after Schallert 2010: 381)

The order in (ia) seems to suggest that basic VO was an option at least in Notker's language. However, note that patterns where an object (or other material) intervenes between the finite verb and a verbal particle might also be analysed as resulting from leftward movement of the finite verb (plus extraposition of the direct object in cases like (ia); cf. Pintzuk 1999 on OE examples like (14) above).

[17] However, note that there are some rare exceptions to Universal 16 (finite auxiliaries follow the main verb in OV languages) such as EME, where we can observe S-Aux-O-V patterns (Pintzuk 1999).

both diachronic and typological facts suggesting that a VO base requires a clause-medial position for finite auxiliaries (i.e., a clause-medial INFL/T-node): First, it has been observed that the order VO-Aux (i.e., a combination of a head-initial VP embedded under a head-final IP/TP) is cross-linguistically very rare, if not completely absent (cf. fn. 8 above; see Biberauer, Holmberg, and Roberts 2014 for an analysis in terms of the so-called Final-over-Final-Constraint (FOFC)). This observation is linked to a generalization concerning possible pathways of word order change, namely the claim that the development of a clause-medial INFL/T-position is a necessary precondition for a change from a head-final VP to a head-initial VP (cf. Kiparsky 1996, Pintzuk 1999).[18] Thus, it seems that a head-final VP is compatible with both a final and a medial position for auxiliaries, while a head-initital VP requires the auxiliary to occur in clause-medial position (i.e., to the left of the non-finite verb).

Examples like (21) which display a verbal complex with the finite verb in absolutely final position are often taken to manifest the predominant OV-character of early OHG.

(21) ... bihuuiu man in Judases   chunnes fleische Christes bidendi   uuas
        why   one in Judah.GEN tribe.GEN flesh   Christ   expecting was
      '... why one was expecting Christ in the flesh of the tribe of Judah.'
      (Isidor 575)

However, it is a well-known fact that alternative serializations of selecting and selected verb are possible in most stages and varieties of German (cf. e.g. Maurer 1926; Behaghel

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[18] See Biberauer, Newton, and Sheehan (2009) for an attempt to derive this generalization from the FOFC.

1923–32, Vol. VI; Bech 1955; Ebert 1981; Robinson 1997; Schmid and Vogel 2004; Schmid 2005; Axel 2007; Sapp 2011a, 2011b; see also ch. 15 and 16). In the generative literature, these are commonly referred to as Verb Raising (VR) and Verb Projection Raising (VPR), reflecting the original analysis of Evers (1975) in terms of right-adjoining a dependent verb or verbal projection to the (finite) matrix verb. The application of VR/VPR is dependent on a number of factors, including tense, type of selecting verb, and number of elements in the verbal complex. For example, in varieties like Zurich German, the auxiliary follows the participle in the perfect tense, while finite modals (in the present tense) precede the dependent infinitive (Lötscher 1978: 3f.):

(22) a.

wil	mer	em	Hans	es	velo	geschänkt	**hand**
since	we	the.DAT	Hans	the	bicycle	given	have

'since we gave Hans the bicycle as a present'

b.

wil	mer	em	Hans	es	velo	**wänd**	schänke	[VR]
since	we	the.DAT	Hans	the	bicycle	want	give	

'since we want to give Hans the bicycle as a present'

The term VPR is commonly used to refer to cases where the verbal complex contains a non-verbal element, for example one or more nominal objects, as in (23a). Note that in the present-day varieties that allow this kind of reordering, VPR is generally ruled out with prosodically light elements such as weak object pronouns as can be seen in (23b).[19]

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[19] However, it has been pointed out that even in Standard German other relatively light elements such as pronominal adverbs (e.g. *darauf* 'there-on') may occur in VPR orders, cf. e.g. Kefer and Lejeune (1974) for relevant examples.

(23) a.   dass er __ **will** [VP   em   Peter es   Gschänk   gää]   [VPR]

          that he   wants   the.DAT Peter the   present   give

          'that he wants to give Peter the present'

     b.   *_dass er __ **will**_ [VP   _em   es   Gschänk   gää_]

          that he   wants   him   the   present   give

          'that he wants to give him the present'

          (Zurich German, Cécile Meier, p.c.)

On the one hand, the possibility of VR and VPR might be taken to cast some doubt on the value of the serialization of verbal elements as a diagnostic test for the underlying order, since there are languages like Dutch and certain Swiss German varieties (cf. e.g. Hodler 1969: 691) which combine an OV base with a preference for Aux-V order in the verbal complex. On the other hand, it has also been argued that across Germanic, this kind of reordering in the verbal complex (and so-called verb-cluster formation) is confined to the class of OV-languages and should therefore be directly linked to the basic OV-character of these languages (Haider 1993; Vikner 2001; however see Koopman and Szabolcsi 2000, and Hinterhölzl 2006 for analyses that derive verbal complexes in Germanic from a VO base).[20]

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[20] Another important difference between left- and right-branching verbal complexes has to do with the fact that the former are always compact while in the latter, non-verbal material may intervene between the verbal components of the complex (i.e., V-(*XP)-V_{fin} vs. V_{fin}-(XP)-V). As it is not immediately clear how this asymmetry can be captured by approaches that derive left-branching orders from a VO base, it seems to provide potential support for alternative

In historical stages of German, VR seems to be more widerspread than in Modern Standard German (but cf. e.g. Kolmer 2011 on the (re-)ordering possibilities in present-day dialects). For example, Robinson (1997) shows that in the *Isidor* translation, we not only find the pattern V-Aux exemplified in (21), but also quite frequently the VR pattern Aux-V (often against the order found in the Latin source).[21] In the examples in (24), the Latin Source has

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modes of analysis (e.g., in terms of the traditional head-parameter; cf. Sapp 2011b for discussion).

[21] Further ordering possibilities can be observed in clusters consisting of two non-finite verbs and a finite auxiliary. According to Robinson (1997: 69), in three-verb clusters the subordinate non-finite verb must always precede the matrix non-finite verb, while the auxiliary can occupy any position in the verbal complex (the latter is marked by boldface in the following examples), see also Bolli (1975); Näf (1979); Sapp (2011b) (cf. e.g. Schmid and Vogel 2004; Schmid 2005 for the situation in present-day varieties of German):

(i) *V3–V2–V1*

fona	huueliihhemu	ædhile	christ	[chiboran	uuerdhan	**scoldi**]
from	whilch	nobility	Christ	born	be	should

'from which noble lineage Christ was to be born'

(Isidor 606 – after Robinson 1997: 89)

(ii) *V1–V3–V2*

dher	dhar	[**scoldii**	chiboran	uuerdan]
who	there	should	born	be

'who was supposed to be born there'

(Isidor 421 – after Robinson 1997: 96)

the finite auxiliary in clause-final position, while the OHG translation exhibits the order V_{fin}–V_{inf} (see fn. 21 for three-verb clusters). The fact that the translation deviates from the order found in the original supports the conclusion that VR was a well-established trait of the grammar of early OHG.

(24) a.   (quod enim homo factus est)

dhazsir   man **uuardh**   **uuordan** [...]

that he   man was   become

'that he became a man'

(Isidor 393 – after Robinson 1997: 67)

(iii) *V3–V1–V2*

dhazsir	in	sines	edhiles	fleische	[quhoman	**scolda**	uuerdan]
that he	in	his	nobility's	flesh	come	should	be

'that He would come in the flesh of his noble line'

(Isidor 559 – after Robinson 1997: 72)

b.   (Probauimus dominum nostrum iesum christum secundum carnem iam natum

fuisse)

Chiuuisso chioffanodum   uuir nu   hear [dhaz unser druhtin

certainly   prove   we   now here that our   Lord

nerrendeo Christ   after dheru fleiscliihhun   chiburdi   iu

the-saviour Christ   after the   fleshly   birth   already

uuardh   chiboran]

was   born

'Certainly, we proved here now that our Lord, the saviour Jesus Christ was born

through fleshly birth.'

(Isidor 5,9)

Still, under the assumption that VR is actually a property linked to a basic OV character

these data do not conflict with the conclusion that OHG was an OV language, at least as long

as we also find corresponding 'unraised' orders with the finite verb in final position, which

can be taken to represent the head-final source of the VR variant. Thus, it seems that the

existence of VR can be used as an argument in favour of OV, but not against it. What about

the use of VPR orders as a diagnostic test for basic word order? Recall that VPR is subject to

a restriction that bans certain prosodically light elements (pronouns, in particular) from

occurring inside the verbal complex. Interestingly, as pointed out by Pintzuk (1999), cases of

apparent VPR that involve pronominal objects do turn up in OE:

(25) þæt heo **wolde**   hine **læran**

that she would   him teach

'that she would teach him'

(ÆLS 25.173 – after Pintzuk 1999: 73)

Pintzuk analyses examples like (25) in terms of a head-final VP in combination with leftward movement of the finite verb to a clause-medial INFL/T head and concludes that examples like (25) provide further empirical support for her hypothesis that OE was characterized by a mixed OV/VO character, where in principle both settings of the Head Parameter were available for both INFL/T and V.

VPR patterns, where a non-verbal constituent intervenes between the elements of the verbal complex, are also attested in (early) OHG:[22]

(26) (Dum enim audis deum unctum, intellege christum.)

dhazsdhar **ist**   [Christ]   chizeichnit

that there is   Christ   described

'that Christ is described there'

(Isidor 146 – after Robinson 1997: 73)

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[22] According to Robinson (1997), the presence of a non-verbal element inside the verbal complex always implies verb raising, that is, the order V-XP-Aux is not attested in the OHG *Isidor* (similar restrictions for VPR can be observed in the modern Germanic languages; see also fn. 20, and Sapp 2011b). Note that this is reminiscent of the absence of the order V-O-Aux (i.e., the FOFC), see above.

In addition to nominal arguments, the position between the two verbal elements can be occupied by (relatively light) elements such as quantifiers, demonstratives and adverbs:

(27) ([...] quando a patre per illum cuncta creata esse noscuntur)

dhazs fona dhemu   almahtigin fater dhurah   inan **ist** [al] **uuordan**,

that from the.DAT almighty father through him is   all   become

dhazs   chiscaffanes   ist

that   created   is

'that everything that was created came to be from the Almighty Father through him'

(Isidor 99 – after Robinson 1997: 65)

(28) (Numquid de illo salomone creditur prophetatum? minime)

Neo nist   zi   chilaubanne   dhazs fona dhemu   salomone

never NEG.is   to   believe   that of   the   Solomon

sii [dhiz]   **chiforabodot**

is   this   prophesied

'It can never be believed that this was prophesied by Solomon.'

(Isidor 638 – after Axel 2007: 120)

(29) (sanctus sanctorum dominus iesus christus olim uenisse cognoscitur)

dhazs	dher	allero	heilegono	heilego	druhtin	nerrendeo	Christ
that	the	most	of-the-Holy	holy	Lord	saviour	Christ

iu	**ist**	[langhe]	**quhoman**
already	is	long	come

'that the holiest of the holy, Christ the Lord has already come'

(Isidor 454)

Note that elements such as demonstratives, quantifiers, and adverbs can also occur in VPR patterns in varieties like Zurich German (Cécile Meier, p.c.). Crucially, however, there does not seem to be any cases of VPR with object pronouns in OHG, unlike OE. Thus, despite the fact that the relevant elements in (27)–(29) are relatively light, the above examples cannot be used as evidence supporting the existence of a clause-medial INFL/T-position in OHG.

To summarize, it seems that we can draw the following conclusions concerning the use of serialization patterns in the verbal complex (involving two verbs) as a diagnostic test for underlying word order:[23]

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[23] Another characteristic property of the Germanic OV languages, which is linked to the possibility of VR, is the so-called IPP (*infinitivus pro participio*) effect. In certain contexts, we can observe that the past participle of a small set of verbs (typically causatives, modals, and perception verbs, see Schmid 2005 for a comprehensive overview) is replaced by an infinitive. As shown in (i), this effect is intimately linked to Verb Raising, giving rise to the order V1-V3-V2 in the right sentence bracket:

(30) a. V–V$_{fin}$ is indicative of an OV base.

   b. V$_{fin}$–V is found in both OV and VO languages. However, only OV languages exhibit an alternation between V–V$_{fin}$ and V$_{fin}$–V (i.e., VR).

   c. VPR is indicative of an OV base (but possibly a first step towards VO, cf. Kiparsky 1996; Pintzuk 1999; Kaufmann 2007; Biberauer, Newton, and Sheehan 2009).

   d. VPR patterns that involve object pronouns suggest the presence of a clause-medial INFL/T head (cf. Pintzuk 1999).

(i) a. dass Peter das Buch hat lesen müssen/*gemusst

    that Peter the book has read must.INF/read.PART

    'that Peter had to read the book'

	V3	V2	V1
b. *dass Peter das Buch	lessen	müssen/gemusst	hat

However, the IPP cannot be observed in the oldest attested stages of German. According to Paul (2007: 315), the first examples where a pure infinitive replaces a past participle are attested in 13th century MHG (see also Behaghel 1923–32, Vol. II; Dal 1971; Ebert et al. 1993; Fleischer and Schallert 2011: ch. 10; Sapp 2011a). Moreover, it seems that the preference for V1-V3-V2 in combination with the IPP effect is a rather recent innovation. Sapp (2011a: 80f.) shows that in ENHG, the order V1-V3-V2 is outnumbered by the order V1-V2-V3 (32% vs 64% of all IPP examples). Of course, this raises the question of how and why the new ordering developed and how it spread to virtually all present-day dialects of German. In addition, it is still unclear how the morphological effects of the IPP, that is, the transition from a past participle to an infinitive, developed historically (see ch. 16 below for discussion).

12.2.4 Immobile complex verbs

The Germanic OV-languages exhibit a class of 'immobile' complex verbs that cannot undergo verb fronting in main clauses and show a tendency to occur in non-finite forms (cf. e.g. Grimm 1826: 582ff.; Åsdahl Holmberg 1976; Wurzel 1995; Koopman 1995; Eschenlohr 1999; Fortmann 2004; Vikner 2005; Freywald and Simon 2007; Ahlers 2010). Relevant examples involving the verb *uraufführen* 'to premiere' are given in (31) and (32).

(31) a.   Sollten   sie   das   Stück   uraufführen?

           should   they   the   play   original-on-put.INF

           'Should they premiere the stage play?'

     b.   dass   sie   das   Stück   uraufführten

           that   they   the   play   original-on-put.PAST

     c.   dass   sie   das   Stück   uraufgeführt   haben

           that   they   the   play   original-on-put.PTC   have

(32) a.   *Uraufführten   sie   das   Stück?

            original-on-put.PAST   they   the   play

            'Did they perform the play for the first time?'

     b.   *Aufführten   sie   das   Stück   ur?

            on-put.PAST   they   the   play   original

     c.   *Urführten   sie   das   Stück   auf?

            original-put.PAST   they   the   play   on

     d.   *Führten   sie   das   Stück   urauf?

            put.PAST   they   the   play   original-on

Verbs that are confined to the right sentence bracket are often analysed as the result of back-formation or conversion operating on complex nominal bases. Relevant examples include verbs with a separable and a non-separable prefix/particle (e.g. German *uraufführen* 'to premiere', *auferstehen* 'to resurrect' *wiedereinführen*, Dutch *herinvoeren* 'to reintroduce'), verbs with an incorporated (usually nominal) element (German *bergsteigen* 'to mountain-climb'*, bauchreden* 'to stomach-speak (to ventriloquize)', *bausparen* 'to build-save (to save with a building society)', *preiskegeln* 'to prize-bowl', *bruchlanden* 'to crash-land', *kopfrechnen* 'to head-calculate (to do mental arithmetic)', *sonnenbaden* 'to sunbathe'; Dutch *bergklimmen* 'to mountain-climb', *buikspreken* 'to stomach-speak'*, bouwsparen* 'to build-save'*, prijsschieten* 'to prize-shoot', etc.), and verbs with two (in principle) separable (*voranmelden* 'to preregister') or non-separable prefixed elements (*strafversetzen* 'to penalty-transfer (to transfer sb. to another position as a punishment)', or *zweckentfremden* 'to purpose-estrange (to use sth. for a wrong/not originally intended purpose)').

Interestingly, the Germanic VO languages seem to lack a corresponding class of verbs with deviating syntactic properties (cf. Vikner 2005). Similar back-formations are very rare (compare Danish **bjergbestige* 'to mountain-climb', **bogliospare* 'to build-save', **bugtale* 'to stomach-speak', **solbade* 'to sun-bathe'); in case relevant complex verbs turn up at all, their syntactic distribution does not differ from the distribution of other verbs. This is illustrated with the Danish verb *planlægge* 'to plan-lay (plan)' in (33) (cf. Vikner 2005: 109):

(33) a.
Hvorfor	kunne	de	ikke	planlægge	at	holde	konferencen	her?
Why	can	they	not	plan-lay	to	hold	conference-the	here

b.
Planlægger	de	at	holde	konferencen	i	Reykjavík?
plan-lay	they	to	hold	conference-the	in	R.

c. *Lægger   de   plan   at   holde konferencen   i   Reykjavík?

lay   they plan to   hold conference-the   in   R.

Arguably, the existence of such a class of complex verbs with a peculiar syntactic distribution is bound to the OV property. So if the Early Germanic languages can be shown to exhibit a similar class of verbs, this might be considered corroborating evidence supporting the conclusion that these languages were basically OV. Interestingly, it turns out that at least one relevant type of complex verb, namely forms with an incorporated noun (also sometimes referred to as 'pseudo-compounds'), is robustly attested in OHG and MHG (apparently in contrast to Early English). According to Åsdahl Holmberg (1976), the dictionaries consulted by her (Raven 1963/1967 for OHG; Lexer 1872–1878, and Jelinek 1911 for MHG) list at least 70 entries for OHG and around 170 for MHG, including forms such as OHG *halswerfôn* 'to neck-turn', *muotbrehhôn* 'to courage-break', *fuozfallôn* 'to foot-fall' and MHG *luginstrâfen* 'to lies-punish (to prove somebody wrong)', *vederslagen* 'to feather/wing-beat', *nôtzogen* 'to need-tear (to rape)', or *radebrechen* 'to wheel-break (to mangle (a language)').[24] It is not clear, however, whether these OHG and MHG verbs exhibit the restricted syntactic distribution of their present-day counterparts. Åsdahl Holmberg (1976: 17) notes that finite verbal pseudo-compounds commonly appear in main clauses of OHG and MHG, which suggests that these verb forms could undergo verb fronting, in contrast to the 'immobile' complex verbs of the present-day language. Unfortunately, Åsdahl Holmberg does not support this statement with OHG or MHG examples, or quantitative evidence. A relevant example from Notker's Psalms, in which a finite (imperative/adhortative) verbal pseudo-compound occurs in clause-initial position, is given in (34).

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[24] At least in OHG, all these complex verbs belong to the weak declension.

(34) (Omnes gentes, plaudite manibus:)

    Hantslagot,   alle   diete, [...]

    hand-clap.2PL   all   nations

    'all nations, clap your hands'

    (Notker, Psalter 46, 2)

We may conclude, then, that the status of OHG/MHG 'immobile' complex verbs and thus their usability as a diagnostic for a basic OV syntax remains open to question, pending further studies of their syntactic distribution.[25]

12.2.5 Quantitative evidence

In recent years, the use of (advanced) quantitative and statistical methods has turned into a fruitful avenue of research in historical linguistics.[26] Of particular interest for our present purposes is the application of quantitative evidence to distinguish between derived orders (which might be linked to discourse-semantic distinctions like information structure) and base orders.

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[25] Note that more generally, the syntactic distribution of complex verbs in OHG seems to slightly differ from what we find in present-day German; for instance, there seems to be a tendency to move the verb together with its (today separable) prefixes/particles to the left sentence bracket, cf. e.g. Kuroda (2010) on the *Tatian*.

[26] For relevant generative work cf. e.g. Kroch (1989); Santorini (1992); Pintzuk (1993, 1996b, 1999, 2003); Kroch and Taylor (1997, 2000); Haeberli (1999); Pintzuk and Taylor (2006); Taylor and Pintzuk (2012a, 2012b, 2014, 2015); Ecay (2015).

An instructive example of this approach applied to the OV-VO alternation in Early Germanic is Kroch and Taylor (2000). They observe that EME exhibits variation between surface VO and OV patterns. The latter occur with an average rate of c. 30% with non-quantified objects. However, at first sight it is unclear whether preverbal placement of objects results from scrambling from a VO base, or reflects an OV base order. To calculate the rate of derived OV orders (resulting from leftward scrambling), Kroch and Taylor measure the rate of scrambling in examples like (35) which exhibit the order NP-V-object pronoun and are used as a diagnostic test for leftward movement of objects from a VO-base.

(35) For alle þeo þe   habbeð   [ani good]$_i$ **idon** me t$_i$

      for all   those that have   any good   done me

      'for everyone who has done me any good'

      (CMANCRIW, I.64.212 – after Kroch and Taylor 2000: 151)

Under the assumption that the rate of scrambling in examples like (35) is representative of the rate of scrambling in general, Kroch and Taylor estimate the average rate of scrambling with non-quantified objects to be about 5% (while it amounts to 30% with quantified objects[27]). From the discrepancy between the frequency of (unambiguous cases of) scrambling and the rate of all surface OV-patterns (around 30%), Kroch and Taylor conclude that not all surface OV patterns can be analysed as derived orders resulting from leftward

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[27] The fact that the rate of OV with quantified objects is considerably higher is commonly taken to suggest that leftward movement of quantified objects (possibly for reasons of scope taking) was a regular grammatical option in EME, cf. Kroch and Taylor (2000) for details.

movement of the object (contra e.g. Roberts 1997). Thus, it seems that OV did exist as a base order option in EME (in addition to VO).[28]

A similar line of argument is used by Pintzuk (2003) to decide whether OE examples like (36) should be analysed in terms of verb raising (VR) as illustrated in (37a), or movement of the finite verb to a clause-medial INFL-head as in (37b).[29]

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[28] See Taylor and Pintzuk (2012a, 2012b, 2014) for the use of similar quantitative methods to assess the influence of information structure on object placement in OE. Taylor and Pintzuk show that in subordinate clauses with finite main verbs there is a tendency for new information to appear in postverbal position, while objects representing given information tend to occur preverbally. In addition, object placement is affected by independent factors such as the prosodic weight of the constituent. Taylor and Pintzuk argue that the loss of OV order cannot be attributed to an overuse of VO order as a focus marking strategy. Rather, it appears that VO order increases at the same rate for all kinds of objects, both given and new, during the OE period. They conclude that the development of an increasingly fixed object position diminished the role of information structure as a factor determining word order. This suggests that the loss of information structure-related word order variation resulted from an independent change that led to a more rigid word order (the loss of 'free' word order is often attributed to the loss of case marking; notable problematic cases include Icelandic with rich case morphology and a fairly rigid word order and Lower German with only two morphological cases and free reordering of material in the middle field (scrambling)).

[29] Note that the auxiliary can also occur in clause-final position as shown in (i). That is, VR is merely optional in OE.

(i) hwæt se   bisceop   don   wolde

   what the   bishop   do   would

(36) þæt   se   eorðlica   man sceolde   geþeon

      so-that   the   earthly   man should   prosper

      'so that the earthly man should prosper'

      (ÆCHom i.12.26 – after Pintzuk 2003: 522)

(37) a.   þæt se eorðlica man [$_{VP}$ t$_i$ sceolde geþeon$_i$]   [VR]

      b.   þæt se eorðlica man [$_{IP}$ sceolde$_i$ [$_{VP}$ geþeon t$_i$]]   [V-to-INFL]

To estimate the average rate of VR, Pintzuk measures the frequency of VR in examples like (38), which involve at least two constituents to the left of the verb and which she takes to be unambiguous instances of OV. As shown by (38b), VR is optional in this context.

(38) a.   swa swa   sceap   from wulfum   &   wildeorum t$_i$ beoð fornumene$_i$

            just-as   sheep   by   wolves   and   beasts   are   destroyed

            'just as sheep are destroyed by wolves and beasts'

            (Bede 46.23 – after Pintzuk 2003: 522)

      b.   þe   se   ealdormon wiþ   hiene   gedon   hæfde

            that the   alderman   against   him   done   had

            'that the alderman had done against him'

            (Or 33.13–14 – after Pintzuk 2003: 522)

      'what the bishop would do'

      (ÆLS 31.500 – after Pintzuk 2003: 522)

Based on this test case, Pintzuk calculates that the average rate of VR is about 12%. If all surface VR orders were genuine cases of VR, then the frequency of VR in examples like (36) should be similar to the frequency calculated by looking at cases like (38a). However, it turns out that the pattern Aux-V is much more frequent (28.4%) in examples like (36), which are ambiguous between VR and leftward movement of the auxiliary. From this observation, Pintzuk concludes that a good deal of surface VR orders is actually the result of leftward movement of the finite verb in OE.

These two case studies provide an example of how quantitative analyses can be employed to discover patterns of grammar beneath the surface in cases where the historical evidence at first sight does not seem to be decisive.[30] In particular, the analysis of the frequency distribution of word order alternants might tell us something about whether a certain word order pattern represents an unmarked/basic or a marked/derived option (cf. e.g. Dittmer and Dittmer 1998 on the OHG *Tatian*). As shown above, deviations from the average rate with which a certain order/pattern appears might be taken to suggest that the same surface pattern (in the cases above OV, or V_{fin}-V) results from a different set of operations in a given, specific context. Moreover, if it can be established that a certain word order option is clearly favoured under certain (pragmatic/syntactic) conditions, then we might conclude that this pattern does not represent a base order but rather an order derived by the application of certain syntactic rules/operations (cf. e.g. van der Wurff 1997, 1999; Kroch and Taylor 2000; Hróarsdóttir 2000a; Ingham 2002; Wallenberg 2009 on the position of negated and quantified expressions in Early Germanic). It is worth mentioning that the feasibility of quantitative

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[30] Note that the approaches discussed above make use of fairly basic (descriptive) statistical methods like measuring relative frequencies and calculating *p*-values. For the use of advanced statistical methods in historical syntax cf. e.g., Ecay (2015).

studies on historical syntax is greatly enhanced by the availability of parsed corpora; for instance, it has often been pointed out that research on the syntax of Early English has received a massive boost from the availability of the Penn Corpora of Historical English. Building comparable electronic corpora for historical stages of German remains a desideratum to this day (with some notable exceptions such as the Old German Reference Corpus). Still, quantitative methods have been successfully put to use to investigate the impact of information structure on word order in a number of recent studies on OHG (cf. e.g. Axel 2007; Petrova 2009; Petrova and Hinterhölzl 2010; Schlachter 2012). Most recently, Sapp (2014) has used quantitative evidence[31] to argue convincingly that extraposition in MHG and ENHG does not differ qualitatively from the corresponding construction in Modern German, thereby challenging the view that basic SVO order was an option in MHG (*pace* Prell 2003 and Haider 2010b).

So far, I have discussed a set of tests that can be used to determine the underlying base order of elements. We will now shift our focus to the notion of 'basic word order' and the question of whether it is possible to identify an unmarked surface word order pattern in OHG.

12.2.6 Basic order = unmarked order

Traditionally, the basic word order of a language has often been identified with the 'dominant', that is, most frequent serialization pattern in a given corpus of utterances (cf. e.g.

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[31] Based on an investigation of over 2,300 embedded clauses selected from the Reference Corpus Middle High German and the Bonn ENHG corpus, Sapp (2014: 154) concludes that Modern German extraposition "aside from decreased frequency, is largely similar to the medieval construction", affecting the same set of elements (apart from clausal constituents, mostly PPs and heavy or focused NPs are placed in the post field).

Greenberg 1963; see Dryer 2007 for critical discussion).[32] In more recent approaches, however, the notion of basic word order is often linked to the notion of unmarked order, where 'unmarked order' can be defined as (39) or (40):

(39)   The word order option which is compatible with the largest set of different linguistic/information-structural contexts (cf. e.g. Lenerz 1977).

(40)   The word order option which shows up in thetic ('all-new') declarative clauses such as presentational and existential sentences, which contain no presupposed/topical information and which typically serve to establish the existence of an entity or a situation (cf. e.g. Sasse 1987).

(39) requires a quantitative analysis of the distribution of the relevant word order options across different information-structural environments in a given corpus (cf. e.g. Kemenade and Los 2006; Taylor and Pintzuk 2012a, 2012b, 2014, 2015 on OE, and the papers in Hinterhölzl and Petrova 2009, and Ferraresi and Lühr 2010; see also ch. 14 below).

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[32] A more refined definition is given in Siewierska (1988: 8), who assumes that the basic word order of a given language is to be identified with the serialization pattern found in "stylistically neutral, independent, indicative clauses, where the subject is definite, agentive and human, the object is a definite semantic patient, and the verb represents an action, not a state or an event." Note, however, that even this careful formulation does not seem to capture basic differences between V2 languages like Swedish and German, due to the fact that the respective VO vs. OV character of these languages is obscured by general verb fronting in main clauses.

There seem to be some indications that in OHG, OV qualifies as the unmarked surface order in this sense. For example, in ch. 13 it is shown that in a corpus of 247 *that*-clauses, OV is found in over 60% of all cases (plus 13% that invite an analysis in terms of OV+extraposition (XP ... V-Aux XP)), while unambiguous instances of VO order are pretty rare (less than 10%). Thus, OV is the most frequent pattern and clearly satisfies the traditional criterion for being classified as the dominant word order option. Moreover, it is unlikely that all instances of OV order involve arguments referring to given or inferable discourse referents, in particular if it is taken into account that there is a cross-linguistic tendency for objects to refer to new information, while subjects typically represent given information (cf. e.g. Birner and Ward 1998; see Westergaard 2010 on possible consequences for word order change). And in fact there are cases where the preverbal position hosts discourse-new material in OHG. A search conducted in the OHG corpus provided by the SFB 632 at the Humboldt University (https://korpling.org/annis3/), which is annotated for information structure, has produced a number of examples like (41) where the new information focus (or parts of it) is placed in preverbal/prefinite position:

(41) a. (quod uisionem uidiss& In templo)

thaz   er   [gisiht] gisah   in   templo

that   he   vision   saw   in   temple

'that he saw a vision in the temple'

(Tatian 27,25)

b. (a terra reducere pussilum)

thaz her íz [fon   erdu] / arleitti   ein luzzil

that he it from land   push/move a little

'that he push it [the boat] from the land/shore a little bit'

(Tatian 55,10-11)

c. (matheum nomine)

ther   [matheus] uuas giheizan

who Matthew   was named

'who was named Matthew'

(Tatian 56,15)

Similar cases can be found in the OHG *Isidor* (cf. Schlachter 2012: 99f.). Other early OHG texts such as the *Muspili* already show an even more consistent OV syntax where discourse-new regularly occurs in preverbal position. This can be seen in (42).

(42) a. daz der man haret ze gote enti imo [hilfa] niquimit

that the man hopes to God and him   help   not-comes

'that the man hopes for god and help is not coming to him'

(Muspili, 120a, v27)

b. daz Elias in demo uuige aruuartit uuerde so daz Eliases pluot [in erda] kitriufit

that E.   in the   battle wounded will-be so that E.'s   blood in earth drips

'that Elias will be wounded in that battle so that Eliases's blood drips down to the soil'

(Muspili, 120a, v49)

Thus, it seems that there is no one-to-one relation between information structure and the linear position of arguments: preverbal objects can be linked to different information-structural properties, while VO order is typically used to introduce new referents into the discourse (cf. Petrova and Hinterhölzl 2010; Schlachter 2012, and ch. 14). These observations support the conclusion that OV represents the basic word order option in OHG (cf. Sapp 2014 for related conclusions concerning MHG and ENHG). However, note that these findings do not necessarily force us to assume that OV represents the base-generated order from which marked alternatives are derived via additional operations such as extrapositon/rightward movement. The empirical facts seem to be equally compatible with a Kaynean analysis where 'basic' OV orders result from a set of operations that apply in the unmarked case (e.g. raising a vP containing the object to SpecTP, cf. Biberauer and Roberts 2005 on OE), while VO orders require some additional machinery linked to the realization of information-structural distinctions (e.g., moving the object to a focus position prior to vP raising, or lack of vP raising/pied-piping, cf. e.g. Biberauer and Roberts 2005; Hinterhölzl 2009b; Petrova and Hinterhölzl 2010, and ch. 14 below).

To illustrate criterion (40), take a look at the Modern German examples in (43) and (44), which do not contain any material that has already been introduced into the discourse, and are commonly taken to represent the basic order of elements in the German middle field (cf. e.g. Lenerz 1977):

(43) Was ist passiert?

    'What happened?'

    Oskar hat [IO   einem Studenten] [DO   ein   Buch]   gegeben.

    Oskar has   a.DAT student.DAT   a-ACC   book   given

    'Peter gave a book to a student.'

(44) Es   hat   ein   Professor [_{IO}   einer Studentin] [_{DO}   einen Kuss]   gegeben.

it   has   a   professor   a.DAT student.FEM   a.ACC kiss   given

'A professor gave a student a kiss.'

However, it is not entirely clear whether thetic sentences provide a reliable diagnostic test for basic word order in (supposedly) discourse-configurational languages such as OE or OHG. It is a well-known fact that there are languages where thetic sentences exhibit special properties that set them apart from basic declaratives (cf. e.g. Lambrecht 2000). For example, it has been observed that presentationals and existentials tend to exhibit V1 order in OHG, as illustrated in (45a–b) (cf. e.g. Lenerz 1984; Axel 2007; Petrova 2011). In adddition, it seems that the subject tends to appear in absolutely clause-final position in thetic sentences (cf. Lambrecht 2000, and Gast and Haas 2011 for the claim that the sole argument of presentational sentences must receive stress and preferably occurs late in the clause).

(45) a.   (/... & facta est/tranquilitas magna.,/)

...uuard   tho   gitan/   mihhil   stilnessi.,/

were   then made   great   calm

'and there was a great calm'

(Tatian 187,24 – after Axel 2007: 121)

b.   Stúant   tho   thár umbiríng / fílu manag édiling

stand   then there around   many   noblemen

'There stood many noblemen around.'

(Otfrid, gospel book I, 9,9)

In a language where word order is primarily used to convey information-structural distinctions, we would perhaps expect that there is a tendency for objects (representing new information) to occupy a post-verbal position in transitive presentational and existential sentences. Thus it might turn out that thetic sentences cannot tell us much about the base order of elements in Early Germanic and that (40) does not constitute a useful notion of 'unmarked order', at least for the languages under investigation. On the other hand, if we could show that objects occupied a preverbal position in thetic sentences in OHG, this could be taken to suggest that word order in Early Germanic was not primarily (let alone solely) governed by information-structural properties.

Unfortunately, relevant examples are not easy to come by, which has to do with the fact that transitive presentationals and existentials are quite rare. Moreover, due to the fact that the finite verb undergoes regular fronting to the left clausal periphery in all stages of German, diagnostics for the basic ordering of the verb and its complement(s) such as (39) and (40) can only be applied to (i) embedded clauses or (ii) main clauses with periphrastic verb forms. Together with the fact that historical linguists have only a limited amount of data at their disposal, these restrictions might create some practical problems, since thetic clauses are typically main clauses, and periphrastic constructions are only infrequently found in early OHG (see ch. 15 below). So it might turn out that thetic clauses are simply too rare in the corpus to warrant solid conclusions.

12.2.7 The significance of translations: Deviations from the source text

The use of translations as sources of historical linguistic evidence is a double-edged sword. On the one hand, it is a well-known fact that translations (and translations of religious texts, in particular) are often heavily influenced by the linguistic properties of their sources, which diminishes their overall value as a source of linguistic information. On the other hand, it is

generally agreed upon that (systematic) deviations from the source text are particularly informative, since they can be taken to represent instances where the translator/scribe consciously decided to depart from the Latin or Greek original in order to obey core properties of the target language (for OHG cf. Fleischer 2006). In this section, we will discuss the use of translations as a means to infer (basic) word order properties, primarily drawing on the work of Dittmer and Dittmer (1998) on the OHG *Tatian* translation (more recent work on OHG that also highlights the significance of translations include Axel 2007; Fleischer, Hinterhölzl, and Solf 2008; Schlachter 2009, 2012; Petrova 2009; Petrova and Solf 2009a; Petrova et al. 2009).

Even a cursory look at word order differences between the OHG *Tatian* translation and the (presumed) Latin source reveals that despite some amount of variation, OV is the dominant pattern in early OHG. Dittmer and Dittmer (1998: 138ff.) observe a strong tendency in embedded clauses to move material that appears postverbally in the Latin source into preverbal position in the OHG translation. In the parts examined by Dittmer and Dittmer (p. 172), they find 375 such cases in embedded clauses. Relevant examples are given in (46)–(48). In contrast, they mention only 12 instances where a constituent appears postverbally against the Latin original (plus 4 cases where an object that lacks a corresponding Latin form is inserted in postverbal position).

(46)   Subject

    a.   (ut **circumcider&ur** [puer])

        thaz [thaz kind] **bisnitan**   **uuvrdi**

        that   that child circumcised   was

        'that the child was circumcised'

        (Tatian 89,7)

    b.   (cum autem **dormirent** [homines])

        thó   [thie man] **intsliefun**

        when the   men fell-asleep

        'when the men fell asleep'

        (Tatian 231,22)

    c.   (sicut **constituit** [mihi] [dominus])

        so   [mir] [trohtin] **gisazta**

        as   me   Lord   told

        'as the Lord told me'

        (Tatian 621,12)

(47)   Object

    (qui **hab&** [sponsam] sponsus est)

    ther   [brut]   **hab&**   ther   ist   brutigomo

    the-one   bride   has   the-one   is   bridegroom

    'He who has the bride is the bridegroom'

    (Tatian 129,11)

(48) PP

(qui **est** [ex deo] uerba dei audit)

ther		[fon gote] **ist**	ther	horit	gotes	uuort
the-one	from	God is	the-one	hears	God.GEN	word

'Whoever belongs to God hears God's word.'

(Tatian 449,1)

Particularly frequent are cases where a postverbal Latin object pronoun is rendered by a preverbal object pronoun in the OHG version (211 times in embedded clauses, according to Dittmer and Dittmer 1998: 172; in addition, there are 49 instances where an object pronoun that lacks a Latin model is inserted into the middle field). These include examples where additional material remains in postverbal position as in (49).

(49) a. (quem ego **mittam** [uobis] a patre)

then	ih	[íu]	**senti**	fon	themo	fater
who.ACC	I	you.PL.DAT	send	from	the.DAT	father

'whom I shall send to you from the Father'

(Tatian 583,5)

b. (sicut **praecepit** [ei] angelus domini)

só	[imo]	**gibôt**	thruhtines	engil
as	him	commanded	Lord.GEN	angel

'as the angel of the Lord commanded him'

(Tatian 85,2)

Thus, it appears that already in OHG, there is a strong tendency to avoid postverbal placement of object pronouns in embedded clauses, very similar to the present-day Germanic OV languages (however, see (19)–(20) above for some exceptions).[33] Table 12.1 gives an overview of the differences and similarities between the *Tatian* and its Latin source observed by Dittmer and Dittmer (1998) for embedded clauses (compare their table on page 172):

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[33] This conclusion is corroborated by cases where light elements that occupy a position in the verbal complex in the Latin original are transferred to a position to the left of the verbal complex in the OHG translation:

(i) (quia **possum** [hoc] **facere** uobis)

thaz ih íu   [thaz]**tuon mugi**

that I   you.PL.DAT that do can

(Tatian 209,13)

Example (i) is particularly interesting, because it features a number of differences between Latin and OHG, all comforming to a basic OV order. In addition to *thaz* moving from an interverbal to a preverbal position, the dative pronoun *íu* has been transferred from postverbal to preverbal position, and a subject pronoun has been inserted. Moreover, note that the order of elements in the verbal complex has undergone a change from V1-V2 (i.e., matrix verb precedes embedded verb) to V2-V1.

Table 12.1: Position of major constituents in embedded clauses of the *Tatian*: OHG vs. Latin

	preverbal position (≠ Latin)		preverbal positon (= Latin)	postverbal position (≠ Latin)		postverbal position (= Latin)
	newly inserted	moved		newly inserted	moved	
subj. pron.	931	24	112	–	–	–
subj. NP	2	66	250	–	2	91
obj. pron.	49	211	109	2	1	72
obj. NP	6	26	165	2	4	223
adverb	11	12	88	–	1	20
P+pron.	–	27	53	–	–	73
P+XP	–	9	138	–	4	184
Total	999	375	915	4	12	663

(Dittmer and Dittmer 1998: 172)

As shown in table 12.1, differences between the word order of the OHG translation and its Latin source typically lead to OV patterns. The insertion of material that lacks corresponding Latin forms by and large follows the same pattern. Still, it is not entirely clear how to deal with the small number of cases (all in all 16) where the V-XP order found in the OHG translation cannot be attributed to Latin influence. While examples such as (50) might be amenable to an analysis in terms of PP extraposition (on a par with Modern German), postverbal placement of (light) NPs (and pronouns, see (19)–(20) above), as illustrated in (51) (involving an extraposed subject) and (52), seems to raise a problem.[34]

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[34] It is perhaps true that we cannot entirely rule out the possibility that VO patterns that correspond to the word order of the Latin source represented a native option in OHG (cf. e.g. the rightmost column in table 12.1). But since it is always possible that the translation simply mimics properties of the Latin source in these cases, most researchers agree that relevant one-to-one correspondences should not be used to draw firm conclusions about the grammar of OHG (cf. e.g. Fleischer 2006).

(50) PP

    a.   (qui [in caelis] **es)**

        thu   thar **bist** [in   himile]

        you   there are   in   heaven

        'who is in heaven'

        (Tatian 151,4)

    b.   (ut ihesum [dolo] **tenerent)**

        thaz sie then   heilant **fiengin**   [mit feihan]

        that they the.ACC   saviour   caught   with guile

        'that they caught the Saviour by trickery'

        (Tatian 413,32)

(51) Subject

    (per quem [scandalum] **uenit)**

    thuruh   then   **quimit**   [asuuih]

    through   the.ACC   comes   offense

    'by whom the offense comes'

    (Tatian 319,13)

(52) Object

    a.   (qui [demonia] **habebant)**

        thie   thar h**ab&un**   [diuual]

        who.PL   there have.PL   devil

        'those who were possessed by the devil'

        (Tatian 133,1)

b.   (qui [deum] non **timebat)**

ther   **niforhta**   [got]

who   NEG.fears   God

'who did not fear God'

(Tatian 413,32)

So while much of the evidence available points towards the conclusion that OHG was basically an SOV language (or, at least clearly more 'OVish' than e.g. OE), there remains a (small) set of data that seems to suggest that OHG cannot be analysed on a par with the Modern Germanic OV languages (where argument NPs usually cannot undergo extraposition). It is unclear whether the attested VO patterns represent the residue of an earlier historical stage with a genuine mixed OV-VO character (cf. e.g. Schallert 2010) or should be attributed to the workings of movement operations that could be put to use to achieve certain communicative/pragmatic effects, but have decreased considerably in subsequent stages of German (cf. Lenerz 1984; Hinterhölzl 2004, and more recently Sapp 2014).

12.3 Conclusion

In this chapter, I have reviewed a set of diagnostic tests for underlying and basic word order and discussed their application to the Early Germanic languages, OHG, in particular. We have seen that OHG exhibits a number of surface properties that are reminiscent of the present-day Germanic OV-languages. Apart from a general predominance of preverbal object placement, these include the existence of preverbal verbal particles/derivational affixes, V-Aux order in the verbal complex (which might be subject to VR and VPR), and a strong tendency to avoid postverbal placement of light elements that resist extraposition such as

pronouns, or light adverbs (in contrast to e.g. OE). These findings are supported by quantitative evidence involving deviations from the Latin source text in the *Tatian* translation, which exhibit a general preference for preverbal object placement (this preference is particularly strong with pronominal elements). So we arrive at a point where we are confronted with conflicting pieces of evidence: On the one hand, the conclusion seems to be warranted that OHG is more 'OVish' than other Early Germanic languages. In particular, there are significant differences between OHG and OE, which suggest that we should not aim at a uniform analysis of the two languages. On the other hand, we have also seen that in comparison with e.g. present-day German, OHG exhibits a larger array of surface VO orders. The majority of VO orders seems to involve constituents that are either heavy, or refer to newly introduced discourse referents (or both); in addition, there is a (very) small number of examples that exhibit postverbal given/light elements. Still, if we were to apply a label to OHG, then it would be rather SOV than SVO, or 'mixed' SOV/SVO. This conclusion is further supported by the impression that the attested word order variation cannot fully be attributed to information-structural factors: While (a subset of) VO orders seem to be linked to length/new information, there are good reasons to believe that OV order is the unmarked case, which is compatible with a larger set of linguistic/pragmatic contexts. Of course, this intuition requires further examination in the form of in-depth quantitative studies that link word order and information-structural status. Furthermore, note that there is evidence suggesting that certain OV orders involving pronominal and (possibly) contrastively focussed elements result from additional syntactic movement operations (cf. ch. 14 below).

As already pointed out repeatedly above, the statement that OHG was basically SOV does not necessarily entail a specific mode of analysis. Thus, while quantitative evidence can be used to distinguish between unmarked (i.e., basic) and marked word order options, it does not seem to be possible to distinguish on purely empirical grounds whether surface SOV

orders (apart from those that e.g. involve a 'high' position of pronominal elements at the left edge of the middle field) are base-generated or derived by a set of syntactic operations. In other words, we might say that in principle, the empirical evidence is compatible with both a traditional account in terms of underlying (i.e., base-generated) SOV order plus extraposition (or multiple base-generated orders, cf. Haider 2010b, 2014; Schallert 2010), and an analysis that treats basic SOV as an order derived from a (universal) SVO base, with additional mechanisms to account for SVO patterns (but see e.g. Pintzuk 2005; Fuß 2008 for a critical assessment of analyses of OE based on Kayne's 1994 Universal Base Hypothesis). An adequate theoretical model should capture the fact that there are not only significant differences between OHG and OE, but also between OHG and the present-day OV languages. In particular, something has to be said about the observation that a good deal of word order variation is linked to factors such as weight and information structure. Last but not least, a theoretical analysis of OHG should provide an answer to the question of how and why these additional word order options got lost in the transition to Modern German.

Let me conclude this section with a brief sketch of what such a theory might look like. The impression that OHG had already moved away from a genuine 'mixed' OV/VO grammar towards a more consistent OV character, with VO orders representing the residue of this former stage, seems to call for an analysis in terms of Grammar Competition, where an older grammatical system is gradually replaced by an innovative parametric option. However, for the reasons mentioned above, the Double Base Hypothesis does not seem to be an adequate choice to model the kind of variation we observe in OHG. A more promising approach is to combine the notion of Grammar Competition with the idea that different word orders are not base-generated, but correspond to derived structures (which might be linked to discourse-semantic distinctions). Note that this synthesis does not imply a certain mode of analysis, but is in principle compatible with various approaches including leftward object movement,

vP/VP raising/pied-piping, rightward movement (possibly at PF, cf. Truckenbrodt 1995), or principles and parameters governing the phonological realization of syntactic structures (cf. e.g. Richards 2004, Fuß 2008 on a phonological version of the Head Parameter, Wurmbrand and Bobaljik 2005 on extraposition as Spell-Out of lower copies of movement). Under this perspective, VO orders no longer existent in present-day German can be analysed as minority patterns generated by a grammar/parametric option that eventually gave way to a consistent OV grammar. The latter change was possibly driven by the fact that OV orders could serve a number of distinct functions (marking topichood, contrastive focus, etc., cf. ch. 14), which at some point blurred the original discourse-semantic function of OV order. A change along these lines can be modelled in terms of 'fossilization' of movement operations formerly triggered by pragmatic/information structure-related factors as purely syntactic movement (cf. Simpson 2004, Fuß 2008 for the concept of word order change in terms of fossilized movement).

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