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VERB PARTICLES AND OV/VO IN THE
HISTORY OF ENGLISH**Marion Elenbaas & Ans van Kemenade*

Abstract. Verb particles (e.g. *up, out, off, down, away*) are a well-known and well studied feature of English and of Germanic languages in general. Nevertheless, the functional and categorial status of English verb particles remains debated, and, especially in the diachronic literature on OV/VO word-order change, this question is typically avoided entirely. This lack of precision about the nature of verb particles is surprising, given the central role attributed to verb particles as diagnostic elements for basic word order. We motivate an analysis of English verb particles as (optionally) projecting intransitive prepositions which function as secondary predicates. In relation to the OV/VO issue, we claim that, although there is a statistically strong cross-Germanic correlation between the position of verb particles and verb complements, the position of verb particles is not a diagnostic for OV/VO order. To support this claim, we will show that there is no one-to-one correspondence a) between Prt–V surface word order and an underlying OV grammar, or b) between V–Prt surface word order and an underlying VO grammar. Moreover, it will be shown that OV order with DP-objects in early Middle English is highly discourse-sensitive, suggesting that OV order with DP-objects is not determined by phrase structure, but by discourse-sensitive scrambling from a VO base.

1. The status of verb particles in the history of English

English particle verbs have received a huge amount of attention in the synchronic literature and many different analyses have been proposed to account for their properties (cf. *inter alia* Bolinger 1971, Fraser 1976, den Dikken 1995, Svenonius 1996, Haegeman & Guéron 1999, Gries 2000, Dehé 2002, Neeleman 2002, Farrell 2005). Most analyses, however, fail to account for the full range of facts involved. The analysis we will adopt in this article is the one proposed for English in Elenbaas (2006, 2007) and Los et al. (2012). This analysis is able to account for the properties of particle verbs at all stages of English, including the shift from pre-verbal to post-verbal particles in the transition from Old to Middle English. In this section, we will discuss two key ingredients of the analysis: verb particles as intransitive prepositions (section 1.1) and verb particles as

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(optionally) projecting secondary predicates (section 1.2). We will also discuss the prosodic weight of verb particles (section 1.3).

1.1. *Verb particles are intransitive prepositions*

Many English verb particles are homophonous with a preposition (e.g. *up, out, off, over*). We take this to support an analysis of verb particles as a subcategory of the category Preposition (see also inter alia Emonds 1972, Jackendoff 1973, Huddleston & Pullum 2002, Svenonius 2002, 2003, 2007, and Aarts 2008). Importantly, however, there is a clear difference in syntactic behaviour between verb particles and other prepositions, (1).

- | | |
|--------------------------|-------------------------------|
| (1) <i>Verb particle</i> | <i>Preposition</i> |
| (a) She dug up a secret. | (a') He climbed up a ladder. |
| (b) She dug a secret up. | (b') *He climbed a ladder up. |
| (c) *She dug up it. | (c') He climbed up it. |
| (d) She dug it up. | (d') *He climbed it up. |

Whereas verb particles can be preceded or followed by a nominal complement (1a–b), prepositions can only be followed by a nominal complement (1a'–b'). Additionally, a pronominal complement cannot follow a verb particle (1c–d), but must follow a preposition (1c'–d'). Svenonius (2003) argues that the nominal complements combining with prepositions and particles belong to different semantic types: prepositions typically combine with a Figure and a Ground or with a Ground, while verb particles typically combine with a Figure. The terms Figure/Ground are Talmy's (1978, 2000), and can be defined as follows:

The Ground is a reference entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure's path, site, or orientation is characterized.

The Figure is a moving or conceptually movable entity whose path, site or orientation is conceived as a variable, the particular value of which is the relevant issue. (Talmy 2000:312)

Thus, prepositions relate an entity (the Figure) to a certain location (the Ground), (2a), whereas verb particles denote the end-state or -location of an entity (the Figure), leaving the Ground unexpressed, (2b).

- | | |
|---------|---|
| (2) (a) | He took <u>the hat</u> [_{PP} off <u>his head</u>]. |
| | Figure Ground |
| (b) | He took <u>the hat</u> [_{Prt} off]. |
| | Figure |

Verb particles, then, do not constitute a separate category: they are intransitive prepositions.¹ Apart from intransitive prepositions, certain adjectives (e.g. *open*, *clean*) and certain nouns (e.g. *home*) show particle behaviour in that they allow the well-known word-order alternation, illustrated in (3):

- (3) (a) He wiped the table **clean**. / He wiped **clean** the table.
 (b) She brought the stray cat **home**. / She brought **home** the stray cat.

The term ‘particle’ therefore subsumes elements from various word classes (P, A, N) and should strictly speaking be understood as a distributional term. Here we will continue to use the term ‘verb particle’, taking intransitivity to be a key shared property of these elements.

1.2. *Verb particles are (optionally) projecting secondary predicates*

A typical characteristic of verb particles, observable throughout the history of English, is that they express a complex event in combination with the verb. We illustrate this with the following examples:^{2,3}

- (4) (a) *Late Old English*
 Donne Moyses *his handa* (O3; cootest, Exod: 17.11.3063)
 when Moses *his hands*
up ahof, ...
 up raised
 ‘When Moses raised his hands, ...’
 (b) *Early Middle English*
 Ha **hackede** of *his heaued* (M1; CMANCRIW, II.220.3190)
 they cleaved off his head
 ‘They cleaved off his head’

¹ As Svenonius (2007:80) puts it: “Particle is [then] not a distinct category, but a kind of P with a particular c-selectional frame [c-selection holds between a head and a complement; ME-AvK]. A given P may be a particle always (like *upstairs*) or sometimes (like *up*) or never (like *at*), depending on its own lexical properties.”

² All examples are from the following sources (text references can be found on the websites): the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* (Taylor et al. 2003), the *Penn-Helsinki Parsed Corpus of Middle English* (Kroch & Taylor 2000b), the *Penn-Helsinki Parsed Corpus of Early Modern English* (Kroch et al. 2004). Searches were carried out using CorpusSearch (Randall 2003). The Present-Day English examples were extracted from the British National Corpus Online service <http://www.natcorp.ox.ac.uk/>, managed by Oxford University Computing Services on behalf of the BNC Consortium. All rights in the texts cited are reserved.

³ The abbreviations O3, M1, etc. refer to time periods as adopted in the corpora used. The division is as follows: Old English: O1 (–850), O2 (850–950), O3 (950–1050), O4 (1050–1150); Middle English: M1 (1150–1250), M2 (1250–1350), M3 (1350–1420), M4 (1420–1500); Early Modern English: E1 (1500–1569), E2 (1570–1639), E3 (1640–1710).

(c) *Early Modern English*

... and **tooke up** a brick-bat which lay there by
(E2; ARMIN-E2-P2, 38.267)
'... and picked up a brickbat that lay near there'

(d) *Present-Day English*

Recovering slightly from the terror of a moment ago, he
wondered whether he dared **pick up** the skull. (BNC, ACV 815)

In each case, the verb particle denotes the end-state of the action expressed by the verb: in the Old English example (4a), Moses' hands are up as a result of raising them, in (4b), his head is off as a result of the cleaving, in example (4c), the brickbat is up as a result of the picking, and in (4d), the skull is up as a result of the picking. These paraphrases reveal that verb particles predicate over a subject and can thus be said to function as secondary predicates syntactically (given that the verb functions syntactically as the primary predicate). This secondary predicate function of verb particles can be seen most clearly when the verb particle has a literal, directional meaning, as in the examples in (4), but verb particles with a non-literal meaning also function as secondary predicates, (5).

- (5) þen schalt þou with suche a (M3; CMHORSES, 125.394)
then shall you with such a
pouder **help up** þe wounde.
powder heal up the wound
'Then, with such a powder you shall heal up the wound.'

The verb particle *up* in this late Middle English example has a non-literal meaning, but still denotes an end-state: it expresses completion of the healing action of the wound. It can therefore be said to function as a secondary predicate, predicating over a subject.

Although all examples discussed so far in this section have a verb particle in a position immediately adjacent to the verb, a distinguishing characteristic of English verb particles is that they can be separated from the verb. This is the case at all stages of the history of English; some examples are given in (6).

(6) (a) *Late Old English*

þa het he (O3; coelive, ÆLS [Chrysanthus]: 222.7458)
then ordered he
niman Claudium and lædan to sæ, and **wurpan**
take Claudius and lead to sea and throw
hine ut mid anum weorcstane.
him out with a hewn stone
'then he ordered Claudius to be taken and led to the sea and
thrown in with a hewn stone.'

- (b) *Early Middle English* (M1; CMANCRIW, II.69.778)
 & **speowen** *hit ut* þer
 and spit it out there
 ‘and spit it out there’
- (c) *Early Modern English*
 And with that worde spekyng as he dyd **cast** *his armys out* to
 make his con~tenau~ce there fell a podynge out of his sleue
 which he hymself had stole~a lytel before in y=e= same alehous
 (E1; MERRY TAL-E1-P2, 121.264)
 ‘And with that word, speaking as he did, threw his arms out to
 make his countenance, there fell a pudding out of his sleeve
 which he himself had stolen a while before in the same alehouse’
- (d) *Present-Day English*
 Despite this, in most areas we are continuing to **hold** *our rates*
down. (BNC, AYP 1517)

Verb particles must have been syntactically independent elements in Old English, given the fact that their position changed from predominantly pre-verbal to predominantly post-verbal in the transition from Old to Middle English. This would be unexpected if the particle formed a lexicalised unit with the verb. As syntactically independent elements, there is clear evidence that Old English particles project a phrase: they can be topicalised, (7a), and they can be modified, (7b). In both cases, they are separated from the verb.

- (7) (a) **Niðer** he **ahreas**... (O3; cocathom1, ÆCHom I, 11:270.111.2078)
 down he fell
 ‘He fell down ...’
- (b) On ane healfe þæs (O3; coaelive, ÆELS [Martin]: 315.6159)
 on one side of the
 mynstres wæs an ormæte clif **ascoren** rihte **adune**, ...
 monastery was a huge rock cut right down
 ‘A huge rock was cut right down on one side of the
 monastery, ...’

Although topicalisation of verb particles has been highly restricted throughout the history of English, examples like (7a) are indicative of syntactic independence, i.e. phrasal status of verb particles. The adverb *rihte* ‘right’ in (7b) modifies the particle *adune* ‘down’ and as such must be assumed to occupy a position inside the projection of the verb particle.

While examples like those in (7) are also attested in Middle English, topicalised verb particles are few and there is a steady decrease in the number and types of elements that are allowed to intervene between the verb and the verb particle (see Elenbaas 2007; Los et al. 2012).

- (8) (a) ... that **downe** he **felle** in a (M4; CMMALORY, 206.3390)
 that down he fell in a
 sowghe to the grounde.
 swoon to the ground
 ‘... that he fell down to the ground in a swoon.’
- (b) ... and the bookis of the olde (M3; CMPURVEY, I,2.74)
 and the books of the old
 testament, that ben not anentis Ebreies, and bennot
 testament that are not among Hebrews and are not
 of the noubre of holy writ, owen to be **cast**
 of the number of holy scriptures have to be cast
 fer **awey**;
 far away
 ‘... and the books of the Old Testament that are not among
 Hebrews, and that are not of the number of the Holy
 Scriptures, have to be thrown far away;’

From early Middle English onward, the adjacent V–Prt order is very much more frequent than the non-adjacent V...Prt order. Tables 1 and 2 give the figures for the position of verb particles with respect to the verb in the first two periods of Middle English, M1 (1150–1250) and M2 (1250–1350).

Table 1a shows that verb particles occur post-verbally in 99.1% of all main clauses containing a verb particle and a finite verb in the M1 period (1150–1250). For the M2 period (1250–1350), this percentage is 94.4%. Table 1b shows that verb particles occur post-verbally in 73.5% of all main clauses containing a verb particle and a non-finite verb in M1. For M2, this percentage is 90.9%. Table 2a shows that verb particles occur post-verbally in 87.5% of all embedded clauses containing a verb particle and a finite verb in M1. For M2, this percentage is 84.2%. Table 2b shows that verb particles occur post-verbally in 87.2% of all embedded

Table 1a. The position of verb particles with respect to the finite verb in M1 (1150–1250) and M2 (1250–1350) main clauses.

| | Pre-verbal | | | | | | Post-verbal | | | | | | Total V _f +prt main |
|------|--------------------|-----|----------------------|-----|--------------|-----|---------------------|------|-----------------------|------|---------------|------|--------------------------------------|
| | prt–V _f | | prt...V _f | | Total Pre | | V _f –prt | | V _f ...prt | | Total Post | | |
| | N | % | N | % | N | % | N | % | N | % | N | % | |
| Main | N | % | N | % | N | % | N | % | N | % | N | % | N |
| M1 | 0 | 0.0 | 1 | 0.9 | 1 | 0.9 | 68 | 58.6 | 47 | 40.5 | 115 | 99.1 | 116 |
| M2 | 3 | 5.6 | 0 | 0.0 | 3 | 5.6 | 45 | 83.3 | 6 | 11.1 | 51 | 94.4 | 54 |

Table 1b. The position of verb particles with respect to the non-finite verb in M1(1150–1250) and M2 (1250–1350) main clauses.

| Main | Pre-verbal | | | | | | Post-verbal | | | | | | Total V _{nr} +prt main |
|------|---------------------|------|-----------------------|-----|--------------|------|----------------------|------|----------------------------|------|---------------|------|---------------------------------------|
| | prt–V _{nr} | | prt...V _{nr} | | Total Pre | | V _{nr} –prt | | V _{nr} ... prt | | Total Post | | |
| | N | % | N | % | N | % | N | % | N | % | N | % | N |
| M1 | 8 | 23.5 | 1 | 2.9 | 9 | 26.5 | 21 | 61.8 | 4 | 11.8 | 25 | 73.5 | 34 |
| M2 | 2 | 9.1 | 0 | 0.0 | 2 | 9.1 | 19 | 86.4 | 1 | 4.5 | 20 | 90.9 | 22 |

Table 2a. The position of verb particles with respect to the finite verb in M1 (1150–1250) and M2 (1250–1350) embedded clauses.

| Sub | Pre-verbal | | | | | | Post-verbal | | | | | | Total V _f +prt sub |
|-----|--------------------|------|----------------------|-----|--------------|------|---------------------|------|-----------------------|------|---------------|------|-------------------------------------|
| | prt–V _f | | prt...V _f | | Total Pre | | V _f –prt | | V _f ...prt | | Total Post | | |
| | N | % | N | % | N | % | N | % | N | % | N | % | N |
| M1 | 12 | 12.5 | 0 | 0.0 | 12 | 12.5 | 59 | 61.5 | 25 | 26.0 | 84 | 87.5 | 96 |
| M2 | 2 | 10.5 | 1 | 5.3 | 3 | 15.8 | 13 | 68.4 | 3 | 15.8 | 16 | 84.2 | 19 |

Table 2b. The position of verb particles with respect to the non-finite verb in M1 (1150–1250) and M2 (1250–1350) embedded clauses.

| Sub | Pre-verbal | | | | | | Post-verbal | | | | | | Total V _{nr} +prt sub |
|-----|---------------------|------|-----------------------|-----|--------------|------|----------------------|------|------------------------|------|---------------|------|--------------------------------------|
| | prt-V _{nr} | | prt...V _{nr} | | Total Pre | | V _{nr} -prt | | V _{nr} ...prt | | Total Post | | |
| | N | % | N | % | N | % | N | % | N | % | N | % | N |
| M1 | 9 | 11.5 | 1 | 1.3 | 10 | 12.8 | 56 | 71.8 | 12 | 15.4 | 68 | 87.2 | 78 |
| M2 | 1 | 8.3 | 0 | 0.0 | 1 | 8.3 | 10 | 83.3 | 1 | 8.3 | 11 | 91.7 | 12 |

clauses containing a verb particle and a non-finite verb in M1. For M2, this percentage is 91.7%.

The predominance of post-verbal particles in early Middle English could signal an increase in syntactic unity between the verb and the verb particle. We hypothesize that this formed a trigger for language learners to analyse verb particles as optionally projecting heads: non-projection is the default by economy, projection is triggered by a restricted set of linguistic factors, such as modification (syntactic factor) and information

structure (discourse factor). In the case of modification, the verb particle is forced to project a phrase, to host the modifier. For Present-Day English, Dehé (2002) has shown that there is a correlation between information structure and choice of word order: when the object conveys new information, it occurs in a focus position, following the particle verb (V–Prt–DP). When the object conveys given information, it occurs in between the verb and the particle (V–DP–Prt), and it is the particle that occurs in the focus position. On the assumption that focus corresponds with syntactic phrasal status (cf. Lambrecht 1994), the verb particle projects a phrase in these cases (see also Elenbaas 2007; Los et al. 2012).

In the course of the Middle English period, the distribution of verb particles becomes more and more restricted, and by the early Modern English period, they predominantly occur immediately adjacent to the verb (V–Prt), (9a), and can be separated from the verb by (pro)nominal objects, (9b), by a negative adverb, (9c), by a restricted set of adverbs modifying the particle, (9d), or, occasionally, by topicalisation (9e).

- (9) (a) ... and **tooke up** a brick-bat which lay there by
(E2; ARMIN-E2-P2, 38.267)
‘... and picked up a brickbat that lay near there’
- (b) For his dissimulacion onelye, **kepte** all that mischyeffe **vppe**.
(E1; MORERIC-E1-P2, 46.77)
‘For his dissimulation only, kept all that mischief up.’
- (c) ... taking good heede that thou **stirrest** not **vp** furious pleasures,
(E1; TURNER-E1-P2, F6V.152)
‘... taking good heed that you do not stir up furious pleasures, ...’
- (d) hee **riseth** right **vppe**
(E2; BLUNDEV-E2-P2, 160V_misnumbered_as_157V.368)
‘he rises right up’
- (e) But **downe** they **burst** the windows for ayre,
(E2; ARMIN-E2-P2, 40.300)
‘But down they broke the windows for air, ...’

In (9a), both verb and particle precede the nominal object; the post-verbal position of the object may well have been influenced by the fact that it is a heavy object (it contains a relative clause). In (9b), the nominal object intervenes between verb and particle, as it might in Present-Day English. Note that the object is quantified and conveys old information, as indicated by the demonstrative determiner *that*. The position of the nominal object could have been determined by its discourse-old status, given that discourse-old information strongly tends to precede discourse-new information. Example (9c) shows V-to-I movement, separating the verb from the particle (negative adverb *not* intervenes). In the mid-sixteenth century, instances of V-to-I movement are still readily found; the loss of V-to-I movement is certainly later than the sixteenth century

(cf. Warner 1997). Example (9d) displays a Present-Day English pattern, with the adverb *right* modifying the verb particle. In (9e), the verb particle has been topicalised.

In sum, verb particles are separable from the verb at all stages of the history of English. Nevertheless, the adjacent verb particle order V–Prt has predominated since early Middle English and since that time, the number and type of elements allowed to intervene between verb and particle has become increasingly restricted, mainly as a result of the loss of V-to-I movement. This can be seen most clearly from modification data, which show that verb particles increasingly appear to resist modification, allowing only a small number of modifiers in Present-Day English.⁴ We take this to mean that the syntactic bond between verb and verb particle has become closer (perhaps also related to the ever-increasing idiomatic unity between verb and particle as a result of the development of non-literal meanings), triggering language learners to analyse verb particles as optionally projecting heads.⁵ Crucially, verb particles function as secondary predicates throughout the history of English.⁶ There is no one-to-one correlation between secondary predicate status and syntactic projection: verb particles function as secondary predicates, whether they project or not (cf. Neeleman 1994, 2002).

1.3. *The prosodic weight of verb particles*

In some of the diachronic literature on OV/VO-related issues (e.g. Kroch & Taylor 2000a, Pintzuk 1997, Pintzuk & Taylor 2006), it is assumed that verb particles, like pronouns and stranded prepositions, are prosodically light elements. This is a crucial claim for analyses which treat verb particles as diagnostic elements for OV/VO word order, because, as light elements, particles are thought to favour occurrence in pre-verbal position in Old English. However, it can be shown that verb particles are not prosodically light at any historical stage in English.

⁴ Typical particle modifiers in Present-Day English are monosyllabic adverbs such as *right* and *straight* (see e.g. Fraser 1976:25–27). Bolinger (1971:11–12) mentions that certain (manner) adverbs, such as *gradually*, are allowed to intervene between the verb and the particle only when the particle occurs in its most literal sense. It should be noted that it is not always clear that the latter type of adverb modifies (just) the particle.

⁵ Several previous analyses of particle verbs have implemented this idea in various ways. See e.g. Zeller (2002) on German particle verbs, Neeleman (1994, 2002) on Dutch and English particle verbs, and Toivonen (2002, 2003) on Swedish particle verbs.

⁶ It should be noted that Present-Day English features particle verbs in which the particle no longer clearly acts as a predicate (e.g. *cook up* ‘invent’, *figure out* ‘understand’). This appears to be the result of the development of non-literal meanings, fostering the unit-like character of verb and particle. In our analysis, this means that Present-Day English particles predominantly do not project (are heads rather than phrases) and form a syntactic complex head with the verb (see section 2.1). Present-Day English particles, then, appear to have undergone a certain amount of grammaticalisation.

In Old English and Middle English alliterative poetry, verb particles carry primary stress, as in (10) and (11) respectively, where the particle occurs in an alliterating position.

- (10) (a) / Sie sio bær gearo, | (*Beowulf*, 3105–6)
be the byre ready
ædre geæfned, / þonne we ut cymen |
speedily made when we out come
‘Let the byre be made ready, speedily wrought, when we come
out’
- (b) | Fyrst **fordh gewat**; / flota waes on (*Beowulf*, 210–211)
time forth fled / ship was on
ydhum, / bat under george.
waves boat beneath cliff
‘Time passed on; the ship was on the waves.’
- (11) Thanne **fette** Favel (ca 1370–1385; *Piers Plowman*, B, II)
then fetched Flattery
forth floryns ynowe
forth florins enough
‘So Flattery produced a great supply of florins’

In the end-rhyme poetry found throughout the Middle English period and later periods of English, verb particles comfortably occur in rhyming position, as in (12).

- (12) For whan he spak, he was anon **bore doun**
for when he spoke, he was at once overcome
with hende Nicholas and Alisoun.
by pleasant Nicholas and Alison
(ca 1387–1400; *The Miller's Tale*, 3831–3832)
'For when he spoke, his testimony was at once contradicted by
pleasant Nicholas and Alison.'

The fact that verb particles are not prosodically light is in line with our claim that they (optionally) project a phrase.

In the next section, we will look more closely at the syntactic distribution of verb particles in Old and Middle English, focusing on the question of what it tells us about underlying OV/VO word order.

2. The position of verb particles and OV/VO word order

In the transition from Old to Middle English, verb particles shifted from pre-verbal position to post-verbal position. The dramatic nature of the shift can be seen from the fact that post-verbal particles are predominant from earliest Middle English, as discussed above in connection with Tables 1 and 2 (see also Hiltunen 1983; Elenbaas 2006).

2007; Los et al. 2012). This shift in the position of verb particles has often been linked to the loss of OV word order. However, the connection appears to have been less direct than has been suggested, given the high frequency of post-verbal particles at a time when OV word orders had by no means disappeared from the language. Although there is a statistically strong cross-Germanic correlation between the position of particles and verb complements in the present-day languages, we show that there is enough evidence to suggest that the assumption that verb particles are a diagnostic for OV/VO order is too strong. To support this claim, we will show that there is no one-to-one correspondence a) between Prt–V surface word order and an underlying OV grammar, or b) between V–Prt surface word order and an underlying VO grammar.

Let us first sketch the background of the debate. Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002) analyse Old English word order and the transition from Old English to Middle English in terms of phrase structure competition between base orders at the level of VP (OV/VO) and at the level of IP (I-medial/I-final), yielding the following four logical possibilities:

- (13) (a) [_{IP} subject [_I I [_{VP} OV]]]
 (b) [_{IP} subject [_I I [_{VP} VO]]]
 (c) [_{IP} subject [_I [_{VP} OV] I]]
 (d) [_{IP} subject [_I [_{VP} VO] I]]

We focus here on what they call competition between OV and VO grammars, i.e. between (13a) and (13b) on the one hand, and (13c) and (13d) on the other hand. We will disregard option (13d), as this is recognized to be non-existent across the Germanic languages, although no broadly accepted account for this is available in the literature.⁷

Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002) take the diagnostic for OV and VO grammars to consist crucially in the position of personal pronoun objects and verb particles with respect to the verb. The rationale behind this is that personal pronouns and particles are light elements, which in Old English tend strongly to appear pre-verbally. If such light elements appear post-verbally, and if this post-verbal position cannot be attributed to movement of the particle (the assumption being that light elements do not move) or to independently motivated grammatical processes such as fronting of the finite verb, we are crucially looking at the product of a VO grammar.

⁷ The absence of this word order is known as the Final-over-Final Constraint (FOFC), which rules out a head-final phrase dominating a categorially alike head-initial phrase; see Biberauer, Holmberg & Roberts 2007 and other publications of the Cambridge/Newcastle research project 'Structure and Linearization in Disharmonic Word Orders'; <http://research.ncl.ac.uk/linearization/papers.php>.

In the previous section, we presented evidence that particles are not prosodically light. Many particles are short, monosyllabic words, but this is not true for all of them (e.g. *adun* ‘down’, *nīðer* ‘down’); they carry primary stress, function as secondary predicates, they project a phrase and thus behave like phrases in Old English, as shown in section 1.

The analyses in Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002) represent a strong claim about the correlation between OV word order/pre-verbal particle on the one hand, and VO order/post-verbal particle on the other hand. Kroch & Taylor (2000a) claim specifically that leftward scrambling of a DP object that is not quantified or negated, is not possible in a VO grammar (see also Haider 2005, 2007). This is based on the observation that the present-day Germanic VO languages effectively do not allow scrambling unless special conditions obtain such as Holmberg’s Generalization (first stated in Holmberg 1986). However, Holmberg’s generalization is generally considered relevant only for strict VO languages. The claim in the work of Kroch et al. amounts to saying that any OV order with a (non-negated, non-quantified) DP-object is the product of an OV grammar. Likewise, it implies that any VO word order in which the particle is pre-verbal is the product of an OV grammar in which the object is post-posed, where post-posing is favoured primarily by weight (in number of syllables). More recently, Pintzuk & Taylor (2008) find that post-posing is also favoured for discourse-new DP-objects.

We here pursue an analysis in which Old English word order is derived from a VO base, following Kayne (1994) in general, and Biberauer & Roberts (2005) in particular, and combine it with the analysis of verb-particle order to be presented in section 2.1, following Elenbaas (2006, 2007) (see also Los et al. 2012). In such an analysis, a rather liberal process of post-posing is dubious on theoretical grounds.

2.1. An analysis of Old English and Early Middle English word order

In order to account for the syntactic distribution of verb particles in Old and Middle English (including the shift from pre-verbal to post-verbal in the transition from Old to Middle English), we adopt Biberauer & Roberts’ (2005) (henceforth B&R) analysis of Old (and Middle) English word order patterns and extend it with our analysis of verb particles (B&R are not explicit on the status of verb particles). The analysis makes use of the idea that a head can be a Probe and that it can be associated with an EPP feature (see e.g. Chomsky 2000). A Probe is an element with uninterpretable features which searches (‘probes’) for a Goal, i.e. an element with matching interpretable features. They assume that Old English has two ways of satisfying the Extended Projection Principle (EPP): the EPP feature of *v* and T can be checked either by movement of the constituent containing a D feature (i.e. the object and the subject

respectively), (14a), or by movement of the maximal projection containing that constituent (i.e. VP and *v*P respectively), (14b).

- (14) (a) ... X_{PROBE} ... [Y_P ... Z_{GOAL} ...] ...



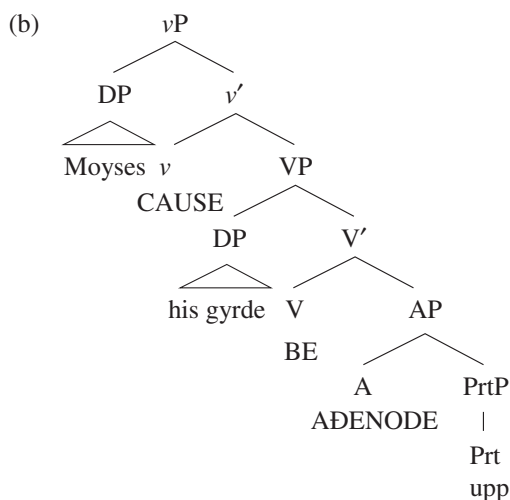
- (b) ... X_{PROBE} ... [Y_P ... Z_{GOAL} ...] ...



The latter option is called *pied-piping*, because the constituent containing the EPP feature is moved along in the larger Y_P containing it. Old English, then, is a *spec-pied-piping* language (B&R 2005:9–10).

In section 1.2, we argued that Old English verb particles project a phrase and function as secondary predicates. The basic structure we propose for Old English particle verbs is presented in (15b).

- (15) (a) Moyses **aðenode** *his* *gyrde* **upp**. (O3; cootest, Exod: 9.23.2720)
 Moses lifted his staff up
 ‘Moses lifted his staff up.’



In our discussion of (15b), we assume that it represents the basic structure of a *V* + object + *Prt* combination, abstracting away from specific clausal syntax, such as the main clause/embedded clause distinction, the possibility of *V*-movement and so on. Structure (15b), based on Baker's (2003) lexical decomposition analysis of transitive verbs, presents the lexical decomposition of the particle verb *upaðenian* 'to lift up', consisting of a *BE* operator which establishes a semantic relation between the Theme argument (*his gyrde* 'his staff'), the secondary predicate (the verb particle *upp* 'up'), and a *CAUSE* operator which establishes a semantic relation between the Agent

argument (*Moses* ‘Moses’) and the BE predication.⁸ In (15b), *V* represents a complex predicate which predicates over the DP *his gyrde* in [Spec,VP]. The verb is derived by head movement of the abstract adjectival head *A* to *V* to *v*. The structure represents the complex event semantics of particle verbs, with the verb particle expressing a result, and also represents the syntactically independent status of Old English verb particles (Old English verb particles project a phrase; see section 1.2) and their secondary predicate status (they predicate over the Theme argument, a Figure). In addition to head movement of the abstract adjectival head, the derivation of the V–DP–Prt pattern illustrated in (15a) involves DP-object movement to (outer) [Spec,VP] to satisfy *v*’s EPP feature.⁹

(16) randomly lists the word orders of object, particle and verb that are attested in Old English and Middle English; Tables 3 and 4 give an overview of their distribution.^{10,11}

- (16) (A) object–particle–verb
 (B) particle–verb–object
 (C) verb–object–particle
 (D) verb–particle–object
 (E) object–verb–particle

The percentages in Tables 3 and 4 are the result of dividing *N* (the number of instances of a particular Prt + V + object pattern) by the total number of main clauses (Table 3) or embedded clauses (Table 4) containing a Prt + V + object. The label ‘DP’ includes nominal objects only. Examples in which the pattern is interrupted by a subject, adverb or PP were excluded.

The tables show a dramatic increase in pattern (D), in which the verb particle is immediately post-verbal and followed by a nominal DP object. Pattern (C), in which the verb-particle string is interrupted by a nominal DP object, is less frequent; this order is most frequently attested with pronominal objects, which obligatorily occur between the verb and the particle (cf. Present-Day English). The figures for patterns (B), (C) and

⁸ See also Jackendoff’s (1990) Lexical Conceptual Structure (LCS) and Spencer and Zaretskaya’s (1998) Resultative Lexical Conceptual Structure (R-LCS). The latter is applied to particle verbs in van Kemenade and Los (2003).

⁹ The adoption of inner/outer [Spec,VP] is in accordance with Biberauer & Roberts (2005).

¹⁰ Cases in which the particle is followed by a PP, such as (i) are not included here:

(i) *ðeah ðu sie up ofer ðine mæð ahæfen* (cocura,CP: 65.467.1.3392)
 though you are up over your condition raised
 ‘although you are raised above your condition’

¹¹ One logically possible word order, particle–object–verb, is absent from this list, because it is not attested in late Old English and early Middle English, parallel to the order non-finite verb–object–finite verb as in (13d) above, which seems to be systematically absent in the Germanic languages past and present. It has been claimed that this order should be excluded on theoretical grounds, see Biberauer et. al (2007) and references cited there.

Table 3. Particle verb + object patterns in late Old English and early Middle English main clauses.

| | | O3 (950–1050) | | M1 (1150–1250) | | M2 (1250–1350) | |
|-----|-----------------|------------------|---------|-------------------|--------|-------------------|--------|
| | | % | | % | | % | |
| | | N | (N/228) | N | (N/62) | N | (N/33) |
| (A) | DP–Prt–Vfin | 33 | 14.5 | 0 | 0.0 | 0 | 0.0 |
| | DP–Prt–Vnon-fin | 5 | 2.2 | 0 | 0.0 | 0 | 0.0 |
| (B) | Prt–Vfin–DP | 15 | 6.6 | 1 | 1.6 | 0 | 0.0 |
| | Prt–Vnon-fin–DP | 3 | 1.3 | 0 | 0.0 | 0 | 0.0 |
| (C) | Vfin–DP–Prt | 23 | 10.1 | 8 | 12.9 | 0 | 0.0 |
| | Vnon-fin–DP–Prt | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| (D) | Vfin–Prt–DP | 43 | 18.9 | 24 | 38.7 | 22 | 66.7 |
| | Vnon-fin–Prt–DP | 0 | 0.0 | 4 | 6.5 | 4 | 12.1 |
| (E) | DP–Vfin–Prt | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| | DP–Vnon-fin–Prt | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |

Table 4. Particle verb + object patterns in late Old English and early Middle English embedded clauses.

| | | O3 (950–1050) | | M1 (1150–1250) | | M2 (1250–1350) | |
|-----|-----------------|------------------|---------|-------------------|--------|-------------------|--------|
| | | % | | % | | % | |
| | | N | (N/151) | N | (N/65) | N | (N/12) |
| (A) | DP–Prt–Vfin | 41 | 27.2 | 1 | 1.5 | 0 | 0.0 |
| | DP–Prt–Vnon-fin | 12 | 7.9 | 0 | 0.0 | 1 | 8.3 |
| (B) | Prt–Vfin–DP | 14 | 9.3 | 2 | 3.1 | 1 | 8.3 |
| | Prt–Vnon-fin–DP | 6 | 4.0 | 2 | 3.1 | 0 | 0.0 |
| (C) | Vfin–DP–Prt | 5 | 3.3 | 0 | 0.0 | 0 | 0.0 |
| | Vnon-fin–DP–Prt | 0 | 0.0 | 3 | 4.6 | 0 | 0.0 |
| (D) | Vfin–Prt–DP | 8 | 5.3 | 15 | 23.1 | 4 | 33.3 |
| | Vnon-fin–Prt–DP | 8 | 5.3 | 14 | 21.5 | 3 | 25.0 |
| (E) | DP–Vfin–Prt | 2 | 1.3 | 1 | 1.5 | 1 | 8.3 |
| | DP–Vnon-fin–Prt | 0 | 0.0 | 0 | 0.0 | 1 | 8.3 |

(E) are low in all three periods, but they are attested, and should be accounted for.

For the analysis in Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), pattern (B) is problematic in the sense that they are forced to derive pattern (B) with a rather liberal rule of post-posing the object from an OV grammar (since the particle is pre-verbal). Furthermore, pattern (E) cannot be derived in their approach, since the post-verbal particle

indicates a VO grammar, in which DP-scrambling to the left is disallowed. The various word order patterns and their derivations are now discussed in turn:

Pattern (A) is by far the most frequent one in Old English and is illustrated in (17a). In the analysis of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), this pattern is (unproblematically) analysed as OV and I-final (as in (13c)). Our derivation is given in (17b).

- (17) (a) ... þæt he *ðone cweclmbæran hlaf awegbære*.
that he the deadly loaf away-carries
(O3; cocathom2, ÆCHom II, 11:96.146.1988)
‘... that he carries away the deadly loaf of bread.’
(b) (i) A-to-V-to-*v* raising:
[_{VP} [_{A+V+*v*} *bære*] [_{VP} *ðone hlaf* [_{A+V} *t*] [_{AP} [_A *t*]
[_{PrTP} *aweg*]]]]
(ii) VP-to-(inner)[Spec,_{vP}] movement:
[_{vP} [_{VP} *ðone hlaf* [_{A+V} *t*] [_{AP} [_A *t*] [_{PrTP} *aweg*]]]
[_{A+V+*v*} *bære*] [_{VP} *t*]]
(iii) merger of the subject in the topmost [Spec,_{vP}]:
[_{vP} *he* [_{VP} *ðone hlaf* [_{A+V} *t*] [_{AP} [_A *t*] [_{PrTP} *aweg*]]]
[_{A+V+*v*} *bære*] [_{VP} *t*]]
(iv) *v*-to-T raising:
[TP [_{A+V+*v*+T} *bære*] [_{vP} *he* [_{VP} *ðone hlaf* [_{A+V} *t*] [_{AP} [_A *t*]
[_{PrTP} *aweg*]]] [_v *t*] [_{VP} *t*]]]
(v) _{vP} movement to [Spec,TP]:
[TP [_{vP} *he* [_{VP} *ðone hlaf* [_{A+V} *t*] [_{AP} [_A *t*] [_{PrTP} *aweg*]]] [_v *t*]
[_{VP} *t*]] [_{A+V+*v*+T} *bære*] [_{vP} *t*]]

In (17), the EPP requirements of *v* and T are satisfied by movement of the VP to [Spec, *v*P] and movement of *v*P to [Spec, TP] respectively.

Another frequent Old English particle verb pattern is Prt-V, in which the verb particle immediately precedes an intransitive verb (no object is present), (18).

- (18) ... and ic **niðer** **astah.**
and I down descended
(O3; cocathom2, ÆCHom II, 12.1:111.43.2403)
‘... and I descended.’

The derivation for (18) is the same as that for (17a).

Pattern (B) represents the word order Prt–V–DP, (19).

- (19) And þa he **utdraf** (O3; cowsgosp, Lk [WSCp]: 11.14.4570)
 and when he out-cast
þa deofolseocnesse þa spræc se dumba,
 the demoniacal possession then spoke the dumb
 ‘And when he had cast out the devil, the dumb man spoke’

In the analysis of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), this pattern represents an OV grammar, since the particle is pre-verbal. They regard pre-verbal light elements, in their view particles and personal pronouns, as a diagnostic for an underlying OV grammar. The position of the object would then be derived by post-posing from an OV structure. In their analysis, post-posing of the object is allowed when the object is heavy, or, according to Pintzuk & Taylor (2008), discourse new. The following further examples show that this is problematic:

- (20) (a) ... and het **up ateon** ardlice *Danihel*, and þa in
 and ordered out pull quickly Daniel, and then in
awurpan þe hine wregdon ær.
 throw who him accused before
 (O3; coaelhom, ÆHom 22:333.3473)
 ‘and ordered to pull out Daniel quickly, and to throw in those
 who had accused him before.’
- (b) Ða wæs se hælend **utadrifende** *sume deofolseocnysse*,
 then was the Lord out-driving a devil-sickness
 (O3; cowsgosp, Lk [WSCp]: 11.14.4568)
 ‘Then the Lord was driving out a demoniacal possession’
- (c) oððe wilt ðu, la, **ut apytan** *ure eagan?*
 or want you lo out put our eyes
 (O3; cootest, Num: 16.14.4218)
 ‘Or do you, lo, want to put out our eyes?’
- (d) þa ongan he **forð sendan** *þyllice stemne* mid hluddre
 then began he forth send such a voice with loud
clypunga wepende
 clamour weeping
 (O4; comary, LS 23 [MaryofEgypt]: 189.123)
 ‘then he began to send forth such a voice, weeping with loud
 clamour’

Among the examples in (20), we can say that in at least the examples (20a and c), there is no clear trigger for post-posing in weight or information status: in (20a), *Danihel* is discourse-old and similarly, in

(20c) *ure eagan* is contextually given (since it represents direct speech).¹² This provides counterevidence to the claims made by Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002) in the terms of their own analysis.

In our analysis, the derivation for pattern (B) involves remnant VP movement to the (inner) specifier of *v*P; the object is stranded in its base position (cf. B&R). Pattern (C) has the word order V–DP–Prt and is exemplified in (21). In our analysis, this pattern is derived as in (15b):

- (21) (a) ... and man ne mihte swa ðeah **macian** *hi*
 and one not could so however make them
healfe up
 half up (O3; *ÆLS*(Swithun) 431)
 ‘... and even in this way not half of them could be put up’
- (b) þa wolde seo Sexburh æfter syxtyne gearum
 then wanted Sexburh after sixteen years do
don *hire swustor* *ban* of ðære byrgene **up**
 of-her sister bones from the burial-place up
 (O3; *ÆLS*(*Æthelthryth*) 73)
 ‘After sixteen years Sexburh desired to take up her sister’s bones from their burial place’
- (c) Gyf hit þonne mædencild wære þone sceolde heo
 if it then maiden child were then should she
 hi forhæbban fram ingange godes huses hundeahtatig
 herself abstain from entry God’s house eighty
 daga eac fram hire gebeddan & æfter þam fyrste
 days after her (child) bed and after that period
 gan mid lace to Godes huse & **beran** *þæt cild*
 go with gift to God’s house and bring the child
forð mid þære lace:
 forth with the gift ... (O3; *ÆCHom* I, 9:249.8.1571)
 ‘if it should be a girl, then should she refrain from going to church for eighty days after the birth, and after that period of time go to church with a gift, and bring the child forth with the gift’

Observe that Pintzuk (1997), Kroch & Taylor (2000), Pintzuk (2002) would assume that this is a VO order, since the particle is post-verbal, but their analysis has little to say about the relative order of object and particle.

¹² An anonymous reviewer suggests that *Danihel* could have contrastive focus. If this is the case, *Danihel* may have been postposed because of information status reasons (cf. Pintzuk & Taylor 2008). However, the context reveals that *Danihel* is not contrastive and receives no prominent stress, ruling out a postposing analysis.

Pattern (D) has the word order V–Prt–DP as in (22), which became predominant after the Old English period.

- (22) Se hælend **ahof upp** his eagan
 the saviour lifted up his eyes
 (O3; cowsgosp, Jn [WSCp]: 11.41.6747)
 ‘The Saviour lifted up his eyes’

In the analysis of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), this represents the structure (13c), with an I-medial IP and a head-initial VP. In our analysis, we interpret this Old English pattern to represent the first cases in which the verb and the particle form a (syntactic) unit: the particle fails to project and merges with the abstract adjective to form a complex syntactic head, (23).¹³

- (23) ... AP
 |
 A
 / \
 A Prt
 | |
 A A

On B&R’s assumption that *v* has an optional EPP-feature, we assume that it is lacking in this case, which explains the absence of remnant-VP or DP-object movement. We assume that the finite verb has not been moved to T.

Pattern (E) has the word order DP–V–Prt, and is exemplified in (24).

- (24) (a) Gif þonne for folces synnum gesceote, swa hit oft
 if then for people’s sins happen as it often
 gescyt þæt unwæstmberns on eard becymð, þæt
 happens that barrenness on earth befalls so that
 ma ne mæge þæt drincgemett **bringan forð**, ne
 more not may the measure of drink bring forth not
 on wine, ne on beore, ne on mede, ne on ealoð, ...
 in wine nor in beer nor in mead nor in ale
 (O4; cochdrul, ChrodR 1:6.28.167)
 ‘If it happens, as it often does on account of people’s sins,
 that barrenness befalls the earth, so that it can no longer
 provide the measure of drink, in wine, beer, mead or ale,...’

¹³ Note that the structure in (23) does not violate the Right-hand Head Rule (RHR; Williams 1981), because the complex head is syntactic rather than morphological in nature, which means that it is not subject to morphological conditions such as the RHR.

- (b) ... & þonne he *his agene sceap læt ut* he
 and when he his own sheep leads out he
 gæð beforan him
 goes before them (O3; cowsgosp, Jn [WSCp]: 10.4.6600)
 ‘... and when he leads out his own sheep, he goes before them’

In the analysis of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), this pattern is not derivable: the particle is post-verbal, which in their analysis indicates a VO grammar. Since object scrambling is not compatible with a VO grammar, their analysis predicts that this pattern is not attested. In our analysis, the pattern in (24a) is derived by DP-object movement to the (inner) [Spec,vP], stranding the particle in the VP. In the analysis of B&R, the fact that in (24b) the DP object precedes the finite verb (in T), requires an additional movement of the DP object. We assume that the finite verb is not necessarily moved to T.

After the transition to Middle English, V–Prt predominates and the Old English pre-verbal particle patterns have become a minority (see Tables 1 and 2 above). We present an early Middle English example in (25a) (=4b), along with its derivation in (25b).

- (25) (a) Ha **hackede of** *his heaued* (M1; CMANCRIW, II.220.3190)
 he cut off his head
 ‘He cut off his head’
- (b) (i) A-to-V-to-v raising:
 [_{VP} [_{A+V+v} *hackede of*] [_{VP} *his heaued* [_{A+v} t] [_A t]]]
- (ii) DP-object movement to (inner) [Spec,vP]:
 [_{VP} *his heaued* [_{A+V+v} *hackede of*] [_{VP} t_{DP} [_{A+v} t] [_A t]]]
- (iii) merger of the subject in the topmost [Spec,vP]:
 [_{VP} *Ha his heaued* [_{A+V+v} *hackede of*] [_{VP} t_{DP} [_{A+v} t] [_A t]]]
- (iv) v-to-T raising:
 [_{TP} [_{A+V+v+T} *hackede of*] [_{VP} *Ha his heaued* [_v t]
 [_{VP} t_{DP} [_{A+v} t] [_A t]]]]]
- (v) DP-subject movement to [Spec,TP]:
 [_{TP} *Ha* [_{A+V+v+T} *hackede of*] [_{VP} t_{DP} *his heaued* [_v t]
 [_{VP} t_{DP} [_{A+v} t] [_A t]]]]]

In the derivation in (25b), the particle does not project a phrase and merges with the (lexically decomposed) verb to form a complex syntactic head. This complex syntactic head undergoes head movement to *v* (and T) via V. The EPP feature of *v* is satisfied by movement of the DP-object,

one of the options in B&R's analysis.¹⁴ The EPP feature of T is satisfied by movement of the DP-subject, which was one of the available options, the other being *v*P pied-piping, which continued to exist until the end of the Middle English period (B&R 2005:25).¹⁵

The above discussion of the Old English patterns shows that the approach of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002) is overly rigid in its assumption of a strict OV grammar on the one hand, in which the particle is pre-verbal and in which the object can be liberally moved rightward to post-verbal position, and a strict VO grammar on the other hand, in which the particle is post-verbal and object scrambling to the left is disallowed. At low frequencies, the patterns disallowed in this approach are attested. In our analysis, which in its derivation of Old English word orders follows B&R and in which the verb particle acts as a secondary predicate and projects a phrase (except in pattern (D), verb–particle–object, in which the particle is non-projecting), all the patterns can be derived straightforwardly.

The situation for Middle English is very similar. The balance of word orders has definitely shifted toward VO in early Middle English, but on the diagnostics of Pintzuk (1997), Kroch & Taylor (2000a), Pintzuk (2002), in which V–Prt order is a diagnostic for a VO grammar, object DPs may scramble leftward in such a grammar, (26).

- (26) (a) ... & efsones he let him ut þurhc wærse red,
and afterwards he let him out on worse advice
to ðat forewarde ðat he suor on halidom &
to the condition that he swore on Holy relics
gysles fand þat he *alle his castles* sculde
and hostages gave that he all his castles
iiuen up.
should give up (M1; CMPETERB, 58.571)
'... and soon after, on worse advice, let him out, on condition
that he gave hostages and swore on holy relics to yield up all
his castles.'

¹⁴ The VP pied-piping option was reanalysed as DP-object movement in early Middle English (B&R 2005:21). They propose that VP pied piping was reanalysed as object DP movement (stranding the VP) in early Middle English in cases where the VP only contains an object DP, (i) (B&R 2005:21).

(i) [_{VP} [_{VP} *t_V* O] *V*+*v* *t_{VP}*] > [_{VP} O *V*+*v* [_{VP} *t_V* *t_O*]]

B&R suggest that "the reanalysis was caused by a decrease in unambiguous evidence for pied piping" (B&R 2005: 21). Language learners chose the structurally simpler option of DP movement, ultimately leading to the loss of the pied piping option for checking *v*'s EPP feature.

¹⁵ The (infrequent) Middle English pre-verbal particle patterns are derived as in Old English, via VP pied-piping and *v*P pied-piping.

- (b) ... þt swich fulðe **spit ut** (M1; CMANCRIW, II.66.707)
 who such filth spits out
 in ani ancre earen. me schulde dutten his muð.
 in any anchoress's ears one should shut his mouth
 Naut mid scharpe sneates ach mid harde fustes.
 not with sharp rebukes but with hard fists
 '... who spits out such filth in any anchoress's ears, one
 should shut his mouth. Not with sharp rebukes, but with
 strong fists.'

Likewise, pre-verbal particles co-occur with a post-verbal DP-object, (27).

- (27) ... þat hie mihte nexxin and mealten and **ut-sanden**
 that they might soften and melt and out-send
sume tear.
 some tears (M1; CMVICES1, 145.1815)
 '... that they might soften and melt and send out some tears.'

We conclude that scrambling is possible from a VO base. We further conclude that all Old and Middle English word orders can be accounted for in an analysis with a VO base; the relative orders of verbs and particles can be derived by principled cases of leftward movement that are independently attested in Old and Middle English and in the Germanic languages more generally.

3. Discourse-sensitive scrambling in Middle English

We now discuss a more general argument concerning the OV/VO alternation in early Middle English, which further shows that OV orders can be derived from a VO-base, contra Kroch & Taylor (2000a). In early Middle English, a good deal of OV/VO variation is still attested, as discussed in Fischer et al. (2000), Kroch & Taylor (2000a), Pintzuk & Taylor (2006). This is true in particular for pronominal objects, and for quantified and negated objects. So far, DP objects have received comparatively little attention. We will now show that their distribution may contribute significantly to our insight in this period of ongoing loss of OV word order. More particularly, we will show that the distribution of DP objects in early Middle English fully supports the idea that OV orders may be derived by discourse-sensitive scrambling from a VO-base (cf. Foster & van der Wurff 1997). In the syntactic analysis presented in the previous section, this can be accounted for by movement of the object DP to an inner specifier of *v*, as in Old English patterns such as (24a–b).

The basic observation here is that, while indefinite DP-objects always occur in VO order, definite DP objects may either occur pre-verbally or post-verbally. In pre-verbal position, they strongly tend towards a

reading in which they have specific reference to an antecedent in the discourse. Such discourse-sensitivity has been well-established for scrambling in Present-Day Dutch (see e.g. de Hoop 2003; Neeleman & van de Koot 2008). The early Middle English facts show that pre-verbal position for DP-objects correlates substantially with definiteness and discourse referentiality, supporting the idea that scrambling is discourse-driven and that it is not restricted to basic VO order, as is often claimed in the literature on the present-day Germanic languages (e.g. Haider 2005).

Let us first present some basic facts concerning OV word order in early Middle English. From the PPCME2 corpus (Kroch & Taylor 2000b), we gathered all the definite and indefinite objects in the earliest period of Middle English, M1 (1150–1250). The distribution of OV/VO word orders in early Middle English embedded clauses is given in Table 5.

Table 5 shows a sharp contrast between definite and indefinite objects: indefinite objects are always post-verbal, whereas definite objects show a substantial incidence of OV word order. A more detailed look at the data shows a further effect: OV word orders with a definite DP object most typically feature a strong demonstrative pronoun (*this*, *that*, *these*, *those* as in (28b and 28d)), although relic weak demonstrative pronouns and the new definite determiner *the* is found here as well (Table 6).¹⁶

Invariably, pre-verbal definite object DPs refer to a referent that is presupposed in the sense that it is discourse-given. The examples in (28) illustrate this:

- (28) (a) All swa he hafð ineðered niðer into helle grunde alle
 just as he has cast down into hell's ground all
 ðe modi ðe hier on liue **ðe dieule** fol3eden, alswa
 the proud who here in life the devil followed so
 he haueð ihei3ed alle ðo ðe Cristes eadmodnesse
 he has raised all those who Christ's meekness
 habbeð 3elued and ihelden, into heuene riches
 have loved and kept into heaven's kingdom's
 merhðe.
 joy (M1; CMVICS1,57.4)
 'Just as he has cast down into the ground of hell all the proud
 who in this life followed the devil, so he has raised all those
 who have loved Christ's meekness and kept it, into the joy of
 the kingdom of heaven.'

¹⁶ By 'relic weak demonstrative pronoun', we understand the relic uses of the Old English demonstratives of the *se* paradigm, which in Old English was employed to mark definiteness as well. According to van Kemenade (2009), this paradigm in Old English plays a crucial role in the discourse referential marking of definite DPs.

- (b) Ne mai no man **ðese eadi hope** habben, bute he hit
 not-may no man this blessed hope have, unless he it
 wel ilieue and soðliche luuie.
 well believe and truly love (M1; CMVICES1, 31.351)
 ‘Nobody may have this blessed hope, unless he well believe it
 and love it truly.’
- (c) ... for nan attri þing nemei **þe 3imstan**
 for no poisonous thing not-can the gemstone
 nach3in.
 approach (M1; CMANCRIW II.108.f55v: 15)
 ‘... for no poisonous thing can approach the gemstone.’
- (d) Meschal leoue sustren **þeose storien** tellen eft ou.
 one shall dear sisters these stories tell afterwards you
 (M1; CMANCRIW, II.122.f64v: 22)
 ‘One shall tell you these stories afterwards, dear sisters.’

It is interesting to note that the object DPs in bold in (28) are not only definite, but they also have a specific reading in that they refer back specifically to a presupposed referent. In context, *ðe dieule* in (28a)

Table 5. The distribution of definite and indefinite DP objects in the M1 period.

| Embedded clauses in M1 (1150–1250) | Definite DP objects | | Indefinite DP objects | |
|---------------------------------------|---------------------|-----|-----------------------|-----|
| | OV | VO | OV | VO |
| DPObj – Vfin | 143 (21.5%) | 523 | 0 (0%) | 644 |
| DPObj – Vnon-fin | 47 (44.8%) | 58 | 0 (0%) | 159 |
| Total | 190 | 581 | 0 | 803 |

Table 6. Types of definiteness markers of preverbal DP objects in the M1 period.

| Embedded clauses with definite object in M1 (1150–1250) | | | | |
|---|------------|-------------|------------|------------|
| | Obj–Vf | Vf–Obj | Vf–Obj–Vn | Vf–Vn–Obj |
| Strong demonstrative pronoun | 83 (58.0%) | 125 (24.0%) | 24 (51.1%) | 21 (36.2%) |
| Relic weak demonstrative pronoun | 35 (24.4%) | 187 (36.0%) | 8 (17.0%) | 17 (29.3%) |
| <i>þe</i> | 14 (27.6%) | 208 (42.0%) | 15 (31.9%) | 20 (34.5%) |
| Total | 143 | 520 | 47 | 58 |

refers back to *dieule* two lines up; in (28b), *ðese eadi hope* refers back to *ða eadi hope* in the previous line in the text; in (28c), *þe 3imstan* refers back to *3imstan* two lines up; in (28d), *þeose storien* refers back to the biblical stories that are the topic of the paragraph in which this sentence occurs. Hence, OV order is restricted to definite DPs with a specific reading. A similarly motivated analysis is given in van Kemenade & Los (2006) and van Kemenade & Milicev (2011) for subject scrambling in Old English.

It would be very hard to envisage an analysis of these facts on the basis of an OV grammar in which indefinite objects are always post-posed and definite objects optionally so. Furthermore, it would be impossible to account for these facts on the basis of a VO grammar in which leftward scrambling of DP-objects is disallowed. In our view, these facts provide cogent evidence for leftward scrambling of a DP-object from a VO-base, and can be naturally accounted for in the analysis presented here. More generally, they provide evidence that word order in the older stages of English cannot straightforwardly be accounted for as competition between a grammar in which word order is derived from a strict OV phrase structure or a strict VO phrase structure.

4. Conclusions

Summing up, we have motivated an analysis of Old and Middle English word order featuring particle verbs, following up the analysis of Biberauer & Roberts (2005) in which word order is derived from a VO-base, and combining it with a secondary predicate analysis of verb particles, following Elenbaas (2006, 2007) and Los et al. (2012).

Verb particles are intransitive prepositions which, in combination with an object, behave as secondary predicates in Old English. They have the clause-final focus characteristic of predicates in the West Germanic languages, as reflected in the fact that they carry primary stress. In Old English, verb particles predominantly project a phrase.

In the further history of English, verb particles continue to be secondary predicates, although they undergo semantic bleaching and their positioning with respect to the verb becomes more circumscribed. Verb particles less and less frequently project a phrase.

The position of verb particles is not a typological diagnostic for OV/VO status. At admittedly low frequencies, OV may combine with a post-verbal particle and vice versa. OV word order with DP-objects in Middle English is amenable to an analysis in terms of discourse-sensitive scrambling from a VO base.

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