

# Event-related Adjuncts and the OV/VO Distinction

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## 1. Introduction and outline

In the Principles and Parameters approach, word order differences between languages have been explained by assuming parametric variation in the head-complement order. To explain the differences in word order between German and Dutch on the one hand and English on the other hand, it was assumed that in the West Germanic SOV-languages the functional and lexical projections in the IP domain are head-final.

In a framework subscribing to the universal base hypothesis (Kayne 1994, Chomsky 1995), word order differences have to be related to other properties. A property that correlates with the position of the object with respect to the verb and that has received little attention in this connection so far, is the position of so-called event related adjuncts, that is, Time, Place and Manner adverbs. These adverbs occur preverbally in the order T>P>M in OV-languages but postverbally in the exact mirror image in VO-languages, as is illustrated in (1).

- (1) a. C T P M-V OV-languages  
 b. C V- M P T VO-languages

The properties of event-related adjuncts raise various interesting questions. First, their distribution within OV- and VO-languages raises the question of what makes exactly these adjunct types special such that their positioning, but not the positioning of other adverbs, seems to be correlated with the positioning of arguments.

Secondly, given Cinque's seminal work on adverbs, these adverbials are peculiar in several respects (cf. Cinque 1999). A) They appear to differ from adverb phrases (AdvPs) proper in not being rigidly ordered. B) In contrast to AdvPs proper, they can be interchangeably in the scope of each other, as is illustrated in (2). C) They differ from AdvPs proper in being typically realized in form of PPs or bare NPs. And D) Scope may go from right to left (cf. (3a)), but binding only from left to right as is illustrated by the contrast in (3bc).

- (2) a. They met students every day of the week in a different university  
 b. They met students in each university on a different day
- (3) a. John met Mary in a (different) park every Sunday  
 b.\* Sue met Mary in his house on everybody's birthday  
 c. Sue met Mary on everybody's birthday in his house

Properties A) and B) are especially troublesome for an approach to adverb placing in terms of syntactic rigid ordering of licensing functional heads as in Cinque's work. Cinque (1999) argues that freely ordered phrases like *in a park* or *every Sunday* are predicates which take VPs as their argument while rigidly ordered adverbs are operators. In this view, sentence (3a) would have the analysis given in (4), where the innermost VP is the argument of the predicate *in a park*, and the resulting structure the argument of the predicate *every Sunday*. Since predicates of VPs can be stacked in any order, property A) and B) above are taken to follow.

- (4) [[[John met Mary] in a park] every Sunday]

Note, however, that the desired distinction does not follow straightforwardly from the approach illustrated in (4). Note first that in many approaches to the proper treatment of adjuncts, even sentential adverbs are analyzed as predicates. So the distinction alluded to by Cinque cannot be made on independent semantic grounds.

Moreover, I will argue below that the presumptive base-structure (4) for the English sentence in (3a) cannot account for the comparative dimension between OV- and VO-languages illustrated in (1).

Thirdly, event-related adverbs give rise to what I call Pesetsky's paradox, which will be discussed in the following section.

In this paper, I will argue that it is property C) above that explains most, if not all peculiarities of event-related adverbs. More specifically, I will argue on the basis of diachronic English data, that it is the property of being mostly realized as heavy PPs which is responsible for the fact that it is exactly these types of adverbs that end up in the postverbal field in English (the relative free distribution of event-related adverbs may then just follow from the fact that as PPs or NPs, they have the potential for scrambling which may move them out of their base-position to other positions according to their quantificational or referential properties).

The paper is organized in the following way. In Section 2, I discuss in detail Pesetsky's paradox. I present two arguments that the cascading structure is untenable and that the layered structure in English is to be derived (via successive cyclic intraposition of verbal projections) from the German order (cf. (1)) obeying the LCA. In order to account for the

binding facts, I propose that English has silent scrambling of the arguments of the verb.

In Section 3, I outline a minimalist theory of parametric variation that accounts for the differences in verb-movement and scrambling between English and Continental West Germanic.

In Section 4, I present the diachronic data. I give a brief outline of the syntax of Old English and discuss how the change from OV to VO came about. I argue that the crucial factor in the change was a stylistic rule of light predicate raising that placed heavy arguments and adjuncts, mostly PPs and heavy DPs into the postverbal field.

## 2. Against the Larsonian approach

The standard approach to the syntax of adverbs in English assumes that adverbs are right-adjoined to VP or I, as is indicated in (5). Right-adjunction structures, either base-generated or derived by movement, are incompatible with the universal base hypothesis. Independently of the universal base hypothesis, Larson (1988) and Pesetsky (1995) have argued that the standard approach to the syntax of adverbs is mistaken, since it fails to account for basic c-command relations between them and the complements of the verb. Typical c-command diagnostics, as NPI-licensing (6) and quantifier-bound pronouns (7), indicate that postverbal adjuncts are in the c-command domain of postverbal complements.

(5) [IP SU [<sub>VP</sub> [<sub>VP</sub> V DO] Adjunct]]

(6) John saw no student in any classroom

(7) John visited everyone on his birthday

Since in the representation in (5) the direct object fails to c-command the postverbal adjunct, Larson (1988) proposed that event related adverb(ial)s are part of a (multi-)layered VP-shell in which these elements are deeper embedded than the complements of the verb as is indicated in (8).

(8) [<sub>VP</sub> SU V [<sub>VP</sub> DO <sub>v</sub>, Adjunct]]

In the Larsonian approach, event related adverbs are analyzed as a sort of (optional) complements in the VP. While the Larsonian approach neatly accounts for ecommand effects illustrated in (6) and (7), it fails to account for standard constituency tests as VP-fronting. The latter process indicates, contrary to the state of affairs in (8), that the verb and the direct object form a constituent which excludes adjuncts (9c). On the other hand, constituents of Larsonian shells motivated by binding do not permit fronting (9d). These observations led Pesetsky into proposing an additional - layered - structure.

(9) John promised that he would visit them in Vienna on Friday, and...

- a. visit them in Vienna on Friday, he did
- b. visit them in Vienna, he did on Friday
- c. visit them, he did in Vienna on Friday
- d.\* them in Vienna on Friday, he visited

In Hinterhölzl (2000), I argue that the Larsonian approach to the syntax of event related adverbs is untenable. Here, I will only sketch the two decisive arguments. First, the Larsonian approach to the syntax of event related adjuncts raises questions about the proper interpretation of these elements. In a Larsonian shell, temporal adverbs are deeper embedded than manner adverbs, as is shown in (10).

- (10) a. John wrote the letter carefully today
- b. [<sub>VP</sub> John wrote [<sub>VP</sub> the letter t<sub>v</sub> [<sub>VP</sub> carefully t<sub>v</sub> today]]]]

Following Ernst (1997) and Haider (1998), I assume that the attachment of adverbs is determined by their scopal properties. The scopal requirements of an adverb include selection for a clausal argument of a particular type. Ernst (1997) specifies a schema of abstract clausal entities relevant for the interpretation of adverb(ial)s.

(11) Speech Act > Fact > Proposition > Event > Specified Event

From (11) it follows, for instance, that evaluative adverbs like *unfortunately* selecting for a fact cannot attach lower to the clausal skeleton than modal adverbs like *probably* selecting for a proposition, though they can otherwise occupy various positions in the clause, as is illustrated in (12).

- (12) a. (Unfortunately) Eddie (unfortunately) has (?unfortunately) left
- b.\* Probably Eddie unfortunately has left

From a semantic point of view, manner adverbs specify an aspect of only part of the event, namely the process component of the event, while temporal adverbs situate the entire event with respect to the speaking time. Thus, standard assumptions about the interaction of syntactic structure and semantic interpretation predict that temporal adverbs should attach to the clause higher, not lower as in the Larsonian approach, than manner adverbs.

Secondly, here is what I call the comparative argument. If the English order is basic, then it is not clear how the German order is to be derived. A roll-up structure that moves a constituent containing the temporal adverb in front of the manner adverb and subsequently moves that larger constituent in

front of the final position of the verb fails to account for the scopal properties of these adverbs in the middle field. In the German middlefield an adverb always scopes over the adverb to its right. A derivation in terms of individual movement of the adverbs by themselves raises several questions. First, the question arises, why the hierarchy of adverbs in German is different from the hierarchy of adverbs in English, as is illustrated in (13).



The second question that arises is what the motivation of adverb movement in German is? That is, even if we follow Cinque (cf. Section 1) and assume that the base structure of these adverbs in English is as given in (14), such that the hierarchy of adverbs in German and English is identical, the question arises why these adverbs are licensed in situ in English but have to undergo licensing movement in German. To the extent that we cannot find a satisfactory answer to this question, the Larsonian approach is rendered unattractive.

(14) [ [ [ VP [ e Manner ] ] e Loc ] e Temp ]

Given the above considerations, in particular, taking serious the semantic argument, it seems that the order of event related adverbs observed in German, namely  $T > P > M$ , is closer to the base than the English order. Thus, I propose that the English order is derived from the German order via successive cyclic intraposition of verbal projections. In the following, I assume that manner adverbs are base-generated in the VP while Time and Place adverbs are base-generated above VP as is indicated in (15).

(15) [ Temp ... [ Loc ... [ v [ Manner [ V DO ] ] ] ] ]

Under these assumptions, the English sentence in (16a) is derived from the base structure in (16b) via successive intraposition as indicated in (16c). The representation in (16c) accounts for the VP-fronting facts illustrated in (9), but fails to account for the binding facts. To explain the data in (6) and (7), I assume that English has "silent" scrambling.

- (16) a. John visited them in Vienna on Friday  
 b. [ <sub>IP</sub> John<sub>i</sub> [ <sub>on</sub> Friday [ <sub>in</sub> Vienna [ <sub>VP</sub> <sub>t<sub>i</sub></sub> visited them ] ] ] ]  
 c. [ <sub>IP</sub> John [ [visited them] in Vienna ] <sub>on</sub> Friday ] ]

Silent scrambling means that there is an overt operation that moves the direct object of the verb into the middle field, just like German scrambling moves the

direct object out of the VP to a position preceding adverbs in the middle field, but unlike German spells out the lower copy.

First note that Scrambling, being an operation of A-movement, creates a new binding position to license bound pronouns and NPIs. As is shown in (17ab) scrambling of the direct object across the temporal adverb can license the bound pronoun contained in the adverb. (18) shows that scrambling can license an NPI.

- (17) a.\* weil die Maria an seinem Geburtstag jeden<sub>i</sub> Freund besuchte  
 since the Maria on his birthday every friend visited  
 b. weil die Maria jeden<sub>i</sub> Freund an seinem Geburtstag besuchte  
 since the Maria every friend on his birthday visited
- (18) a.\* weil Hans jemals keinen Studenten traf  
 since Hans ever no student met  
 b. weil Hans keinen Studenten jemals traf  
 since Hans no student ever met

Also note that if we accept the semantic argument sketched above and assume that the English order is to be derived from the German order, in other words, if we dispense with the Larsonian approach to the syntax of event-related adverbs, then scrambling is the only option to derive the binding facts in (6) and (7): the scrambling analysis is superior to an analysis in terms of a covert operation at LF, since quantifier raising would lead to a WCO-effect in the case of (7).

In Hinterhölzl (2000), I present a typology of scrambling operations and argue that there is no reason why English could not have the types of scrambling operations found in Dutch. There, I distinguish three types of latter two found in Dutch, and argue on the basis of the phenomenon of ACD that English in comparison to Dutch only lost extension-scrambling of names. The argument is based on the observation that scrambling can resolve all cases of ACD: cases of ACD involving names, which are problematic for the QR-based approach to ACD-resolution as well as cases of NP-contained ACD which are problematic for the Case-movement based approach to ACD-resolution.

To summarize, I have argued that event related adjuncts do not differ from other adjuncts in their positioning. As all other adverbs they are attached to the left of the clausal skeleton according to their semantic (selectional) properties. What is different between OV and VO-languages is the positioning of the verb with respect to these adjuncts. The question is how the different positioning of the verb in English has been brought about and in which way we can embed the different positioning of the verb in a

general theory of parametric variation. I try to answer these questions in the following sections.

### 3. A minimalist theory of parametric variation

I assume that languages are essentially alike differing only in how they satisfy universal constraints. That is to say that I assume that all movement operations are overt. In particular, I assume that languages may differ in only two macro-parameters:

- A) Each feature may be checked via XP- or X<sup>0</sup>-movement  
 B) In checking a feature either the higher or the lower copy may be spelled out

With respect to Parameter A, I assume that Attract Closest implies that XP-movement is the unmarked option in feature checking. X<sup>0</sup>-movement is dependent on special requirements of the attracting head, for instance, on the attracting head being an affix.

Parameter A is relevant for the positioning of adverbs. When the English verb undergoes licensing movement, it does so by XP-movement (the unmarked option) which will result in inverted orders. When the German verb undergoes licensing movement, it does so by X<sup>0</sup>-movement, followed by remnant XP-preposing (cf. Hinterhölzl 1998, Haegeman 1999), which leaves pre-existing orders unchanged.

With respect to Parameter B, I assume that in checking an uninterpretable feature, the higher copy must be spelled out (the lower copy with the unchecked uninterpretable feature being deleted on account of convergence (cf. Nunez 1995)). In checking an interpretable feature either copy may be spelled out.

I assume that Parameter B is relevant for the instantiation of scrambling, since scrambling is driven by features which are interpreted at the LF-interface, namely specificity, scope and topicality (cf. Hinterhölzl (2000)). In particular, I assume that Spell-out is guided by economy considerations in the following manner. If a language has the basic word order XY and there is interpretative evidence for movement of Y, but no evidence for movement of X then the simplest analysis is that Y is spelled out in the lower copy. These Spell-out choices are fixed by an optimizing learning algorithm in the process of language acquisition. A child acquiring English will, on encountering interpretative evidence for scrambling but no evidence from the PF-side, assume that scrambling spells out the lower copy.

### 4. The diachronic evidence

In this section, I want to explain how it came about that English retained scrambling but nevertheless lost OV-orders. After the loss of Case morphology at the transition from the Old English (OE) to the Middle

English (ME) period, other evidence, namely relative word-order properties, is needed to decide whether the direct object is to be spelled out within the VP or in a position external to it.

The first candidate, positioning of the object with respect to the verb, is highly ambiguous. Because of V2 and V-to-I in Early Middle English (EME) main clauses, the order V > O would not count as a reliable indicator of where the object is to be spelled out. This is where event related adverbs in the middle field come in. In Dutch, for instance, they provide reliable evidence that the object is to be spelled out in a VP-external position.

In EME, however, as soon as VP-inversion is triggered, this process would mask scrambling and blur the clear evidence that was and is available for the Dutch child, as is illustrated in (19). This raises the question of what triggered the introduction of obligatory VP-inversion, which I will try to answer in the following section.

- (19) a. [IP Adv [VP VO]] *base order*  
 b. [IP O Adv [VP V]] *scrambling*  
 c. [IP VP V][O Adv t<sub>VP</sub>] *VP-inversion*  
 d. [IP [VP VO] Adv t<sub>VP</sub>] *"reanalysis"*

One important question in the theory of language change is what types of change can be reduced to the workings of internal factors of the grammar, including factors operative during language acquisition and what types of change require the assumption of additional external factors, like sociolinguistic factors and language contact. I will argue below that the change from OV to VO in English can be explained in terms of internal factors only.

The second question concerns the amount of variation in word order found in EME, which is typical for languages in change and by far exceeds the amount of variation found in stable varieties. Kroch (1989) claims that this amount of variation is due to the presence of competing grammars which characterizes languages in change. Instead of assuming grammar competition, I will reinvigorate a traditional concept, namely the distinction between core grammatical rules and peripheral grammatical rules, with the latter having the characteristics of being optional and speaker-dependent.

#### 4.1. The syntax of Old English

The predominant word order in Old English (OE) is verb-final in subordinate clauses and verb-second in main clauses. Thus OE has been analyzed as an OV-language akin to modern German or modern Dutch. In fact, OE does display a couple of other features typical for OV-languages,

according to typological criteria (cf. Hawkins (1983)). Next to the finite verb appearing in final position in embedded clauses, it is a typical feature of OV-languages that verb-particles precede the verb and non-finite verbs precede the auxiliary, as is illustrated in (20).

- (20) a. *Þæt he his stefne up drof*  
that he his voice up raised  
b. *for þon of Breotone neðran on scippe lezde wæron*  
because from Britain adders on ships brought were

However, OE also displays a number of VO-features. First, we find a considerable number of VO-orders in cases of Verb Raising and Verb Projection Raising. These facts are not too surprising since we find the same kind of orders in an undisputable OV-language like Dutch and its dialects, especially Westflemish, and in various German dialects.

Secondly, we find a considerable number of extraposed PPs, CPs and DPs. While extraposed CPs and PPs are unproblematic, extraposed DPs do not occur in Modern Dutch and Modern German, though they did occur in older varieties of German. Pintzuk & Kroch (1989) show on the basis of a metrical analysis of Beowulf that these DPs receive stress. A case in question is given in (21a).

However, there is further evidence that points against a pure OV-character of OE. A) Verb-particles, though they cannot occur after a non-finite verb, can be moved along with the verb in V2-contexts, be stranded somewhere in the middle field and as such be followed by a DP (cf. (22) below). B) small clauses can follow the finite verb in embedded clauses and can also follow the particle in V2 clauses, as is shown in (21b) and (21c), respectively. C) OE allows postverbal adverbs in embedded clauses, as is illustrated in (21d).

- (21) a. *Þæt ænig mon atellan mæege [ealne one demm]*  
that any man relate can all the misery  
b. *forðam ðe he licettað hie unscyldige*  
because that they pretended themselves innocent  
c. *he drof þæt cild up geædrucod and ansund*  
he raised the child up quickened and healthy  
d. *Þæt hie þæt unadiefede doð aliefedlice*  
that he the unlawful did lawfully

The conclusion to be drawn from these observations is that the finite verb moves leftward even in embedded clauses (cf. Pintzuk 1996). Note, however, that this rule will not account for all cases of VO-order. The

corpus of W. Koopman (1994) contains, next to 340 OV sentences, all sorts of VO-structures involving non-finite verbs, 94 in total.

In order to account for these and similar facts, Kroch & Taylor (1997) assume, what I call, a doubly double base. They assume that not only the VP can be head-initial or head-final, but also that the IP can be head-initial or head-final in OE. Not only is this proposal cumbersome, it also allows for a grammar that overgenerates. We do not find sentences of the form V XP Aux, which would result from combining a head-initial VP with a head-final IP.

Alternatively, I assume a VO-based grammar plus licensing movement of arguments and VP-internal predicates to designated positions in the middle field (cf. Zwart (1993) for Dutch and Hinterhölzl (1999) for German). This will derive all the OV-properties of OE. To account for the apparent VO-properties of OE, I will assume optional XP-movement of the verb to a medial position (light predicate raising). Assuming this rule has the following advantages: a) it can apply to finite as well as to non-finite verbs and b) it can pied-pipe verb-particles. Thus, the OE sentence (22a) is derived from a basic OV-structure (22b) by successive application of light predicate raising and V2, as illustrated in (22c).

- (22) a. *Pa ahoþ Paulus up his heafod* (van Kemenade 1987:33)  
then raised Paulus up his head  
b. [CP *Pa* [IP *Paulus his heafod up ahoþ*]]  
c. [CP *Pa ahoþ* [IP *Paulus* [VP *up t<sub>i</sub>*] *his heafod*]]

#### 4.2. The trigger of VP-adverb inversion

In this section, I report on the results of a corpus analysis. I studied the distribution of DPs, PPs and event-related adverbs with respect to non-finite verbs, that is, infinitives and participles, in main clauses in two OE-texts and two EME-texts. The results are given in (23). Remember that our empirical prediction is that the loss of OV-orders is initiated by the introduction of V-Adverb orders. We will see below that this prediction is indeed borne out by the data. Secondly, we would also like to find out how VP-adverb inversion came about.

#### (23) OE-Texts

King Alfred's OE-version of „De Consolatione Philosophiae“ (850-950)

postverbal adverbs	15/150	10%
postverbal objects (DPs only)	44/164	27%
postverbal PPs	69/113	60%

## Aelfric's Lives of Saints (950-1050)

postverbal adverbs	22/85	26%
postverbal objects	52/121	43%
postverbal PPs	89/137	64%

## ME-Texts

## St. Katherine: West Midland (ca 1200-1220)

postverbal adverbs	24/47	50%
postverbal objects	58/89	62%
postverbal PPs	57/86	66%

## Vices and Virtues: East Midland (ca. 1200)

postverbal adverbs	11/129	7%
postverbal objects	89/363	25%
postverbal PPs	123/240	55%
postverbal Adjunct-NPs	8/27	29%

The two OE-texts are taken from the middle and the later period, just to see whether any development already happened in the OE-period. The ME-texts are all from the same early period. Two things can be read off these numbers. In both OE-texts as well as in 'Vices and Virtues' we see a clear difference in postverbal occurrences according to syntactic category which can be explained most coherently as a length effect. This is bad news for the double base hypothesis. To explain the data in King Alfred's text, for instance, the proponents of competing grammars would have to claim that speakers use a VO grammar in 60% of the cases in sentences with PPs, but only in 27% and 10% of the cases with DPs and adverbs, respectively. This is certainly an absurd characterization of the data. Note that these facts can be handled very elegantly by the peripheral rule of VP-movement that I proposed above if we assume that the rule is conditioned by the heaviness of the category that ends up at the right boundary of the clause. If the threshold is around three words, then most of the PPs, around 60%, will end up in the postverbal domain, while much less DPs, namely only the longer ones and very few adverbs, very likely only those that are focussed, may trigger light predicate raising.

Secondly, we see that while the distribution of PPs remains more or less constant across the period investigated, more and more adverbs and DPs appear in postverbal position. The important fact is, that the number of

postverbal adverbs, which start from a much lower level due to their lightness – an adverb consists of just one word – rises much quicker than the number of postverbal DPs. In other words, postverbal adverbs 'pull' postverbal arguments. This observation is very much in line with my prediction that VP-adverb inversion triggered postverbal objects.

In principle, such a situation in a language can remain stable as long as the vast majority of event-related adverbs remain preverbally, since the latter will be direct evidence that a stylistic rule may be involved in the positioning of adjuncts of the same type. The situation, however, changes if more and more event-related adverbs appear postverbally. The threshold seems to be around or even below 50%. This is shown by a statistics that I adopted from Kroch and Taylor (1997). The tables in (24) show the percentages of postverbal NPs depending on length in these two dialect groups. Note from the tables in (23) that adverbs in the West Midland text have risen to 50% postverbal occurrences, while adverbs in East Midland text stayed preverbally in the vast majority of cases. The data in (24) show that while there is a clear length effect in the East Midland texts, the length effect has disappeared in the West Midland texts.

(24)	West Midlands	East Midlands
one word NP	76%	31%
two word NP	60%	35%
three word NP	73%	55%
four word or longer NP	87%	75%

The question now arises what caused light adverbs to be postponed. We concluded above that the PPs which were in their majority adjuncts, were postponed due to heaviness and being focussed. Note, however, that there is another postponing process of adjuncts in West Germanic that may involve light elements, when they are not part of the focus. This operation which I call backgrounding is illustrated in (25) for German.

(25) der Hans hat ein Buch gekauft gestern (in Wien)  
*the Hans has a book bought yesterday (in Vienna)*

If this type of construction became increasingly prominent in late OE, then the EME-child would have faced a situation where not only heavy and focussed but also light and topical elements appear postverbally. In this situation a simpler analysis becomes available that allows one to dispense with the two peripheral rules, namely obligatory successive cyclic VP-intrapolation.

I have not been able yet to collect direct evidence for this scenario from the corpus data. But there exists quite convincing indirect evidence that comes from the types of event-related adverbs that may still occur in preverbal position in Modern English. These are manner adverbs, degree adverbs and adverbs of indefinite time (*always, often, sometimes, seldom, then, ever*).

In German, backgrounding may not effect manner and degree adverbs at all and higher adverbs only, especially temporals, if they are referential. We may thus assume that a significantly larger proportion of these types of adverbs remained in preverbal position. In modern English, the positioning of manner and degree adverbs is still conditioned by weight, with light adverbs appearing preverbally and more heavy ones postverbally. For adverbs of indefinite time a subgeneralisation was later formed which places them as a rule in preverbal position. This development occurred later in the ME-period (between 1500 and 1600) and is most likely related to the loss of V-to-I in English.

The following question now arises. If it is true, as I have claimed, that the postverbal occurrence of event-related adverbs is a characteristic property of VO-languages, how likely is it then that this property came about due to the application of a stylistic rule in the history of all VO-languages? Not very likely, one is inclined to say.

However, there is another property distinguishing OV and VO-languages that I have not discussed yet. VO-languages, as a rule, place the main stress at the right edge of an intonational domain, in particular, at the right boundary of the intonational phrase of the clause, while in OV-languages main stress can be quite removed from the right edge of the intonational phrase of the clause. It is not clear to me whether light predicate raising is to be considered the consequence or the trigger of this intonational requirement in VO-languages, but that there is a relationship between the two is evident.

To summarize, I have argued that the reason why event related adverbs appear postverbally in a VO-language like English should neither be explained by linking the placement of these adverbs to a directionality parameter (like the head-complement parameter) nor to their presumptive property of being event predicates. Instead, I argued that this property should be related to the fact that event-related adverbs, in distinction to other, especially higher adverbs, are realized in their majority as NPs and PPs. As PPs, they were prone to be placed in postverbal position by a peripheral rule in the OE-period. Due to converging factors (outlined above) this situation got fixed when the postverbal order of these adverbs was reanalyzed as the result of successive cyclic VP-intraposition.

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