

VO or OV? That's the Underlying Question: Commentary on Pintzuk*

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In these remarks I discuss some of Pintzuk's arguments for analyzing Old English (OE) in terms of the directionality parameter rather than in terms of Kayne's (1994) universal spec-head-complement order hypothesis (see Roberts 1997). The paper is organized as follows. In section 1, I discuss Pintzuk's claim that case morphology plays no role in the change from OV to VO in the history of English. In section 2 I examine whether some adjacency asymmetries between head-complement and complement-head orders can tease apart the two competing approaches. In section 3 I consider the correlation between certain word order patterns and scrambling and suggest a way to derive it under a Kaynean approach. A brief conclusion is presented in section 4.

1 Case morphology and word order

Kayne (1994) proposes that there is no directionality parameter at the level of D-Structure and that spec-head-complement is the universal underlying order for any projection; from this perspective, different orders are taken to result from leftward movement of different constituents. Roberts (1997) adopts the framework proposed by Kayne and extends to OE Zwart's (1993) analysis of Dutch as underlyingly SVO. Thus, the O...V order in OE is treated as involving leftward movement of the object past the verb. Assuming that such movement is driven by case checking, Roberts then

proposes that the loss of morphological case in English was the trigger to the change to VO order (interpreted as loss of object movement).

Pintzuk submits this correlation between case morphology and word order to a close scrutiny, by investigating whether VO and OV orders are affected by the specific properties of the case of the complement (whether it is structural or inherent, and whether or not it is morphologically ambiguous). The idea that structural and inherent case could be associated with different orders is based on the assumption that the former should be checked in [Spec, AgrO], whereas the latter should be checked within the VP. As Pintzuk shows (see her Table 1), there is no significant difference between these two types of case: structural case is associated with 33.5% of postverbal DP complements and inherent case with 38%. The potential effect of morphological ambiguity, in turn, 'would have a functional basis: since the grammatical function of the unambiguous DPs is obvious from their morphology, then clauses with unambiguously case-marked DP complements may exhibit freer constituent order than clauses with ambiguously case-marked DP-complements' (p. 15).ⁱ Again, no significant effect is detected: the frequency of postverbal complements reaches 35.8% with unambiguous DPs and 37.1% with ambiguous DPs (see her Table 1).

Strictly speaking, the fact that the morphological ambiguity and the type of case of complement DPs (inherent vs. structural) play no role in determining V...O order cannot be taken as a counterargument to Roberts' approach. His notion of case is, in his own words, 'much more abstract than in *GB* theory' (p. 415), requiring that small-clause predicates, non-finite complement clauses, and some PPs move to check for case; the distinction between structural and inherent case is thus obliterated, as he explicitly observes (p. 420).

It seems to me that rather than a problem in Pintzuk's reasoning, the remarks above illustrate the thorny task of reinterpreting Kayne's proposal from a minimalist perspective. In

Kayne's (1994) system, complement-head orders must involve movement of the complement; in turn, the Last Resort condition of Chomsky (1995) requires that every movement operation be licensed by checking relations. To make the two approaches compatible, Roberts assumes that a more abstract notion of case is what allows the movement of PPs, small clause predicates, and nonfinite complement clauses to comply with Last Resort. The problem with this move towards "abstractness" is that if "abstract case" is not adequately defined, it is not clear how it relates to morphological case. In other words, why should one expect that the loss of morphological case could affect the position of nonfinite complement clauses and complement PPs, for instance?ⁱⁱ

Regardless of the adequacy of this extension of the notion of case, Pintzuk presents further evidence for the lack of effect of case morphology on the change to VO. Since the morphological case system broke down in Early Middle English, Roberts' proposal would lead us to expect that the frequency of V...O order in OE should remain relatively stable. However, Pintzuk shows that the frequency of V...O order increases from 27.5% in texts written before 950 to 48.4% in texts written after 950 (see her Table 2). These facts lead her to the conclusion that Roberts' analysis, which links the change from OV to VO in English to the loss of case morphology, cannot be correct.

Although I concur with this conclusion, I will attempt to show in the next sections that a modified version of Roberts' analysis of O...V order in OE as involving leftward movement of the complement from a postverbal position may indeed be viable.

2 Adjacency Issues

One piece of evidence that Pintzuk presents against a uniformly head-initial analysis of OE concerns the adjacency between the verb and its object in OV and VO orders. She conjectures that if preverbal objects are derived by scrambling, 'we might expect postverbal objects to occur

adjacent to the nonfinite main verb, with preverbal objects before left-periphery VP adverbs and other VP adjuncts' (p. 24). She then proceeds to show that this prediction is not met (see her section 6.1); one finds the four possible orders (O-Adv-V_{nonfinite}, Adv-O-V_{nonfinite}, V_{nonfinite}-O-Adv, and V_{nonfinite}-Adv-O) and the frequency of adjacency does not properly distinguish the two word order patterns (55.8% with preverbal objects and 62.1% with postverbal objects; see her Table 3). Her conclusion is that 'an analysis in which postverbal constituents are derived by a combination of base generation and postposition can account for these data. But if underlying structure is uniform and rightward movement is not permitted, their derivation is not as clear' (p. 25).

Let us see how a uniformly head-initial analysis could derive the four word order possibilities mentioned above, starting with the O-Adv-V_{nonfinite} and Adv-O-V_{nonfinite} orders. This pattern of optionality appears to fall under the same class of economy problems that led Chomsky (2000) to propose that rather than working with the numeration as a whole, the computational system actually works with subarrays of the numeration, each containing one instance of either a complementizer or a light verb. The problem with these two orders can be described as follows. Let us assume with Chomsky (1995) that (1) represents the general structure of a transitive verb phrase and that short object movement is movement to the outer Spec of vP to check a strong feature of the light verb *v*. Assume further that at the derivational step represented in (1), there is still a vP adverb in the numeration. The adverb must then be selected and merged with the structure in (1) either before the object moves, as illustrated in (2), or after such object movement, as shown in (3).ⁱⁱⁱ

(1) [_{vP} S [_{v'} V_i+_v [_{vP} t_i O]]]

(2) [_{vP} O_j [_{v'} Adv [_{v'} S [_{v'} V_i+_v [_{vP} t_i t_j]]]]]

(3) [_{vP} Adv [_{vP} O_j [_{v'} S [_{v'} V_{i+v} [_{VP} t_i t_j]]]]]]]

If the options in (2) and (3) were to be compared for economy purposes, (2) should block (3) because it resorts to Merge over Move at the derivational step immediately following (1), in compliance with Procrastinate. Given that the two options yield acceptable sentences, as shown by Pintzuk, we are then led to conclude that their derivations cannot be comparable. If Chomsky's proposal to compute Procrastinate with respect to subarrays is correct, this may indeed be the case. We can account for the acceptable orders in (2) and (3), if they are derived from different subarrays. That is, in (2) the adverb should belong to the subarray determined by the light verb; hence, it must be merged before the object moves. In (3), on the other hand, the adverb should belong to the subarray determined by the relevant complementizer; thus, the structure built based on the subarray determined by the light verb (the *phase* in Chomsky's (2000) terms) vacuously satisfies the preference for Merge over Move and the adverb is added later to the structure, when the CP phase is assembled.

Assuming that the apparent optionality of adverb placement in OV orders can be accounted for along these lines, the derivation of V_{nonfinite}-O-Adv and V_{nonfinite}-Adv-O orders remains unclear under a Kaynean analysis only if nonfinite verbs remain in situ, as Pintzuk assumes in her analysis (p. 23). If nonfinite complements involve a structure larger than vP and if the nonfinite verb may (optionally) raise within this structure (see Roberts 1997:412, 424:fn. 5), the orders above can be derived through movement of the verbal complex.^{iv} Hence, verb movement in (2) and (3) yields V_{nonfinite}-O-Adv and V_{nonfinite}-Adv-O orders, as respectively illustrated in (4) and (5) (see fn. 3).

(4) [_{IP} [V_{i+v}]_k [_{vP} O_j [_{v'} Adv [_{v'} S [_{v'} t_k [_{VP} t_i t_j]]]]]]]]]]

I will not explore the approach sketched above any further. My point here was simply to show that lack of adjacency between a verb and its object in OE may not in itself present problems for an analysis such as Roberts'. All depends on how sound the auxiliary assumptions are. Actually, there is an adjacency asymmetry correlated with the order between the nonfinite and the finite verb (*Aux* for simplification) that may constitute an argument for an approach in terms of the underlying spec-head-complement hypothesis rather than the directionality parameter. If IPs and VPs could independently vary between head-initial and head-final structures, one should expect to find instances of Aux-O-V order (with initial Aux and final V), as well as V-O-Aux order (with final Aux and initial V). However, according to Pintzuk, the V-O-Aux order is rarely attested.^v By contrast, the adjacency asymmetry between Aux and V in Aux-VP and VP-Aux orders may well be what is expected under a uniformly head-initial analysis.^{vi} Let us assume, for concreteness (see Roberts 1997:409), that OE objects obligatorily move to [Spec, vP] and that an infinitival vP may move to the [Spec, vP] associated with Aux, as shown in the simplified derivation represented in (6).

(6) a. [vP1 [Aux [IP [vP2 [V O]]]]]
 b. [vP1 [Aux [IP [vP2 O_i [V t_i]]]]] (case checking)
 c. [vP1 [vP2 O_i [V t_i]]_k [Aux [IP t_k]]] (vP movement)

The obligatory adjacency between the main verb and the auxiliary in VP-Aux orders then results from the fact that the complement position within VP is occupied by the trace of the moved complement.^{vii}

3 Postverbal Objects, Remnant Movement, and Scrambling

Pintzuk takes the fact that one finds the order Aux-V-pro in OE (where *pro* stands for pronouns) but not the order V-Aux-pro (see her Table 4) as evidence that pronouns do not move rightward; hence, the order Aux-V-pro is interpreted as a diagnostic for underlyingly VO structures. Based on a study of scrambling in Early Middle English by Kroch and Taylor (in press), Pintzuk then investigates if there is any correlation between VO diagnostics and the type of scrambling that takes place in OE.^{viii} She finds that OE patterns like Early Middle English in that clauses exhibiting VO diagnostics only allow scrambling of quantified DPs, whereas clauses with no such diagnostics admit scrambling of nonquantified DPs, as well (see her Tables 7 and 8). Her conclusion is that 'a uniform head-initial analysis for OE cannot be correct, and that preverbal nonquantified objects are base-generated in that position. From there, they can of course scramble leftward' (p. 35).

From a Kaynean perspective, the facts brought up by Pintzuk raise two questions: a) how can we derive the order V-Aux-DP, while ruling out the order V-Aux-pro? and b) how can we capture the correlation between postverbal pronouns and the lack of scrambling of nonquantified DPs? Let us start by consider what the derivation of V-Aux-O orders should look like under a uniformly head-initial approach.

Roberts (1997:412) suggests that such cases involve movement of the object, followed by remnant movement of a constituent containing the verb. Let us assume, for concreteness, that this constituent is the nonfinite vP, as illustrated in (7):

(7) a. [XP [Aux [YP [vP DP_i [V t_i]]]]] (case-checking)
 b. [XP [Aux [YP DP_i [vP t_i [V t_i]]]]] (scrambling)
 c. [XP [vP t_i [V t_i]]_k [Aux [YP DP_i t_k]]] (remnant movement)

If the remnant-movement approach sketched above proves to be correct, the contrast between V-Aux-DP and V-Aux-pro may then be attributed to the different positions scrambled DPs and pronouns move to. Let us follow the standard view that scrambled pronouns move to a position higher than the position of scrambled DPs (see Roberts 1997:423, for instance), as represented in (8):

(8) a. [XP [Aux [WP ... [YP [vP pro_i [V t_i]]]]]] (case-checking)
 b. [XP [Aux [WP pro_i ... [YP (t_i) [vP t_i [V t_i]]]]] (scrambling)

The scrambled pronoun in (8b) may now induce a minimality effect for "long distance" scrambling of material placed lower in the structure. If so, the nonfinite vP cannot undergo remnant movement to a position higher than Aux and the order V-Aux-pro is correctly excluded. Once scrambled *pro* blocks scrambling from within the nonfinite clause, the correlation between the impossibility of V-Aux-pro orders and lack of scrambling of nonquantified DPs is also accounted for. As for "long distance" movement of quantified DPs, it is plausibly triggered by different kinds of features; in fact, this seems to be tacitly assumed by any analysis of the asymmetry between quantified and nonquantified DPs with respect to scrambling. If so, it should not be surprising that *pro* does not induce minimality effects in this case.^{ix}

Thus, the correlation between V-pro order and lack of "long distance" scrambling in OE may also be derived under a Kaynean approach. Again, whether or not it provides a better account of OE than analyses framed in terms of the directionality parameter depends essentially on the plausibility of the auxiliary assumptions required in each type of approach.

4 Conclusion

In this paper I examined three points that Pintzuk presents as evidence against an analysis of OE in terms of Kayne's proposal that the underlying order of every projection is spec-head-complement: a) the lack of correlation between case morphology and the position of complements; b) the lack of asymmetry between VO and OV structures with respect to adjacency; and c) the correlation between V-pro order and lack of scrambling of nonquantified DPs.

The first issue concerns the specific implementation of Kayne's proposal developed by Roberts (1997), which takes case checking to be the motivation for movement of the complement in O-V and VP-Aux orders. Pintzuk convincingly shows that case morphology plays no role in determining the position of complement DPs and VPs, thus raising serious doubts for analyzing the position of the complement in head-final structures in terms of case. Although the point is well taken, it is worth observing that the argument is specifically against the motivation for the relevant movements, and not necessarily against the movement themselves. If some other motivation were found, a Kaynean approach could in principle be sustained.

As for the arguments related to adjacency and scrambling, their efficacy crucially depends on auxiliary hypotheses that are not uncontroversial (whether or not we have an exploded Infl, whether or not verbs in OE can move in nonfinite clauses, etc.). Furthermore, the adjacency asymmetry between VP-Aux and Aux-VP structures may actually be understood as evidence for a Kaynean approach. Thus, it seems fair to say that an analysis of OE in terms of Kayne's universal spec-head-complement hypothesis fares (at least) as well as an analysis in terms of the directionality parameter.

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Notes

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ⁱ Based on the rationale behind the hypothesis about the potentially different behavior between inherent and structural case, one could also expect that complements with unambiguous inherent case should exhibit a more fixed order than complements with a case ambiguous between inherent and structural.

ⁱⁱ Replacing this notion of "abstract case" by an EPP-feature raises the same kind of question.

ⁱⁱⁱ The subject is irrelevant for the surface order since it presumably moves out of vP in later steps of the derivation.

^{iv} See Nunes (1995), who argues that infinitival verbs in OE move within their infinitival clause, based on the distribution of infinitival sentential subjects and lack of "split infinitives."

^v 'It is extremely rare that any constituent, either argument or adjunct, appears between the nonfinite main verb and the finite auxiliary. I have found only one such example, in the poetic text *Beowulf*, lines 169a-1698a' (Pintzuk, fn. 6).

^{vi} This observation does not hold of Roberts' (1997) analysis. In order to account for Aux-V-O orders with unfocused objects, he proposes that the main verb incorporates into the auxiliary and thus assumes that the two verbs must be adjacent in Aux-V-O order, as well (see Roberts 1997:417). Based on work by Koopman (1994), Pintzuk (fn. 10), however, shows that this assumption is factually incorrect for OE, there being numerous examples of Aux-O₁-V-O₂ order in double object constructions.

As for focused objects in Aux-V-O order (see Pintzuk and Kroch 1989), Roberts stipulates that 'the object must be focused in order to escape the requirement that it move to Spec,AgroP' (p. 417). An alternative approach under the copy theory of movement that is compatible with obligatory movement of objects in OE would be to say that focus stress forces the pronunciation of the lower copy of the object instead of higher copy (see Nunes 1999, among others, for phonetic

realization of copies).

^{vii} On the assumptions required in order to force movement of complements other than DPs, see discussion in section 1.

^{viii} Pintzuk also takes postverbal particles and stranded prepositions to be diagnostics of an underlying VO order. Here I will have nothing specific to say about the correlation between these structures and lack of scrambling of nonquantified DPs.

^{ix} One may ask why the scrambled DP in (7c) does not block remnant movement of the nonfinite vP. Two possibilities come to mind. It may be the case that only "long distance" scrambling blocks "long distance scrambling"; hence, according to the derivations in (7) and (8), scrambled pronouns should block remnant movement of vP, but scrambled DPs should not. Alternatively, any kind of scrambling should in principle block remnant movement of vP, but a scrambled DP is in the same minimal domain as vP and should be equidistant from the target of movement (see Chomsky 1995: chap. 4). That would be the case if in (7b), DP is in the specifier of Y and vP is the complement of Y. By contrast, *pro* in (8b) falls outside the minimal domain including vP and could in principle induce a minimality effect for vP movement. Unfortunately, I do not have evidence to tease these two possibilities apart.