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Property Delay*
(Remarks on "Phase Extension" by Marcel den Dikken)

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1. Truth in unpackaging

In his paper, den Dikken argues that several syntactic and semantic phenomena provide evidence for a package of proposals that includes the following four claims:

(1) **Phase Extension**
"Syntactic movement of the *head* H of a phase α up to the head X of the node β dominating α *extends* the phase up from α to β; α loses its phasehood in the process, and any constituent on the edge of α ends up in the domain of the derived phase β as a result of Phase Extension" (den Dikken's (3))

(2) **Phase Impenetrability Condition as in Chomsky (2000, passim) [PIC]**
"[I]n phase α with head H, the domain [of H] is not accessible to operations outside α, only H and its edge are accessible to such operations". (den Dikken's (1))

(3) **Adjunction Prohibition**
"[A]djunction to meaningless categories is disallowed." (den Dikken's (18))

(4) **Inherent Phase**
"[A]n *inherent* phase is a *predication* (subject–predicate structure)." (den Dikken's (2))

These four claims are not considered in isolation, but are, of course, evaluated in the context of certain specific ideas about structure. One important idea about structure, inherited from den Dikken (2006), is that a subject-predicate configuration has (or may have) as its head a category called a *RELATOR*. Another is the idea that RELATORP is sometimes the complement of a "meaningless category" F in structures like den Dikken's (9b)) — an assumption that feeds the Adjunction Prohibition in (3). Relevant as well are some very particular metrics of locality (den Dikken's (11) and (12)), as well as a tapestry of other ideas common to much work that calls itself "Minimalist".

Because den Dikken is so explicit about many components of his overall proposal, he not only makes it possible for the reader not only to see how these components work together, but also makes it easy to ponder and evaluate them individually. The "unpackaging" of complex proposals in this way is useful not only as a path to the evaluation of a technical paper, but also as an research-generating device and as a source of fresh ideas in its own right. Almost always, the proposals advanced in any

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* This is a draft of a solicited "peer commentary" on the paper "Phase extension: Contours of a theory of the role of head movement in phrasal extraction" by Marcel den Dikken, to appear in an issue of *Theoretical Linguistics* edited by Katalin É. Kiss. Den Dikken's paper can be downloaded at http://web.gc.cuny.edu/dept/lingu/dendikken/docs/phase_extension.pdf.

individual paper are not supported in a uniform manner, or to a uniform degree. In a paper that advances ideas A, B and C, for example, it is often the case that more work is being done by A and B than by C. If A and B seem promising, it may be productive to ask whether an alternative perspective might be developed in which one retains A and B, but replaces C with other ideas. In so doing, one often comes to realize that the specific proposal advanced in a particular paper actually belongs to a "family" of related proposals, many of which might not been previously discussed in the literature. Such proposals can then be productively compared with each other.

Consider, for example, the PIC as stated in (2). Here the recent literature offers alternative ways of understanding the special status of particular phrases in a syntactic derivation or structure. For example, Danny Fox and I, arguing for "Cyclic Linearization" (**CL**) have attempted to show that phases are not impenetrable in Chomsky's sense (Fox and Pesetsky (2005)). If CL is correct, the existence of phases does not "alleviate the burden on active memory imposed by syntactic computation" by erasing all access to previously built structure, but works in a somewhat less drastic fashion. On the CL view, a phase is a point in a derivation at which linearization takes place, and any "alleviation of burden" arises from the incremental, phase-by-phase nature of linearization. (The system linearizes in chunks, and never re-linearizes an already linearized structure.) Though phases are penetrable by syntactic operations, operations that cross a phase boundary may yield ordering contradictions, and therefore produce unpronounceable structures. PIC and CL thus share many predictions, but differ interestingly on others.

It is of obvious interest, therefore, to ask what happens if one holds other aspects of den Dikken's story constant, but substitutes a CL view of phases for PIC. I return to this possibility shortly. What I will actually attempt in this comment is slightly more complex.

Despite the number of ideas concurrently advanced in den Dikken's paper, the clear focus of the paper is *Phase Extension* as stated in (1). It might therefore seem that the family of proposals most likely to provide instructive contrasts with den Dikken's work is limited to those that hold Phase Extension constant but vary other ideas (e.g. PIC). In fact, however, there are other instructive alternatives that belong to the same family.

Phase Extension itself is not a single idea, but a cluster of ideas. Here, I think, we can benefit by "unpackaging" a bit more than den Dikken himself has done. Phase Extension seems to me to incorporate at least the following five distinct claims:

(5) **Existence and nature of Head Movement**
Head movement is a type of internal merge, and takes place in tandem with other syntactic operations.[1]

(6) **Property Delay (PD)**
In a derivation in which a head H moves to head X, some properties of H are not expressed in the original position of H, but only in its final position as part of H+X.

(7) **Property Transfer (PT)**
When a head H moves to head X, forming H+X, some properties of H become properties of H+X.

(8) **PD for phases**
The property of *phase building* is one of the properties that falls under PD as in (9).

(9) **PT for phases**
The property of *phase building* is one of the properties that falls under PT as in (7).

By calling these claims "distinct", I do not mean that they are entirely independent and unrelated. There are, of course, contingencies among these ideas. For example, one obviously cannot ask whether PD or PT of a particular property holds of head movement if head movement does not exist. Likewise, if PD or PT does not exist, one can also not discuss whether PD or PT holds of the property of "phase building".

Crucially, however, there are interesting *non*-contingencies as well. It might be the case, for example, that den Dikken is correct about (5)-(7), but wrong to suppose that the property of H for which he observes PD and PT is the phase-building property (i.e. wrong about (8) and (9)). It might be other properties of H that show PD or PT. Also, as already observed, one might hold constant all or some of (4)-(9), but question Phase Impenetrability in (2). In this short comment, these are the actual paths that I wish to follow. In particular, I would like to suggest that it is worth investigating a variant of den Dikken's ideas that has the following properties:

(10)
a. PIC as in **(2)** is replaced by CL.
b. The adjunction prohibition as in **(3)** is unnecessary (and possibly dispensable).
c. Proposals **(4)**, **(5)**, **(6)** and **(7)** are retained.
d. PD for phases as in **(8)** is replaced by PD for a different property: the property of triggering A-bar movement.
e. The status of PT for phases as in **(9)** is uncertain.

I will hold constant den Dikken's assumptions about structure.

My purpose is not to argue strongly that my alternative is correct. Too many other aspects of the overall picture must be clarified and investigated before that claim can be advanced. My purpose is merely to suggest that this alternative is *interesting*, and therefore worth investigating further. In so doing, though I will suggest some disagreement with aspects of the paper, I will actually be highlighting one of its strengths — the fact that it indirectly draws our attention to an entire family of interesting proposals. In this way, it promises to shape and direct future research.

2. PD for phases and Object Shift

Den Dikken argues (in section 3 of his paper) that Phase Extension (our (5)-(9)) helps explain the well-known fact (Holmberg (1986)) that verb movement is a precondition for Object Shift (**OS**) in Scandinavian. This familiar property of OS, exemplified in (11), serves in turn as a key argument for Phase Extension:

(11) **Object shift (OS) blocked by (unmoved) verb within VP**

OS

a. Jag kysste henne inte [$_{VP}$ t_v t_o] (Swedish)

V-movement

I kissed her not

OS

b. *...att jag henne inte [$_{VP}$ kysste t_o].
...that I her not kissed

OS

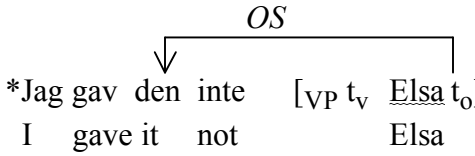
c. *Jag har henne inte [$_{VP}$ kysst t_o].
I have her not kissed

Den Dikken offers new and impressive evidence for the claim that OS extracts the object from *v*P "in one fell swoop, without intermediate adjunction to VP". If *v*P must function as a phase, PIC (if correct) should block such movement. Consequently, either PIC is false or else *v*P is not a phase in acceptable sentences with OS. Fox and Pesetsky argued for the former conclusion. Den Dikken argues for the latter. In so doing, he follows in the footsteps of Déprez (1989, 233-236), Chomsky (1993) and others, who proposed that the raising of the verb extends a domain that would otherwise block OS (and subject raising as well). For Déprez, the relevant domain was a *Barrier* in the sense of Chomsky (1986). For Chomsky, the relevant domain was determined by a variant of Rizzi's (1990) *Relativized Minimality*. For Den Dikken, however, the relevant domain is the *phase*, and the salient property of the phase is its *impenetrability* (except at its edge). He argues (his section 3.2) that the interaction of verb-movement and OS in Scandinavian shows that when *v* moves to a higher head *X*, it extends the phase-hood of *v*P — the key to allowing OS out of *v*P. Subsequent movement of *v*+*X* to T allows the subject to raise to Spec,TP — much as in Chomsky's (1993) proposals.

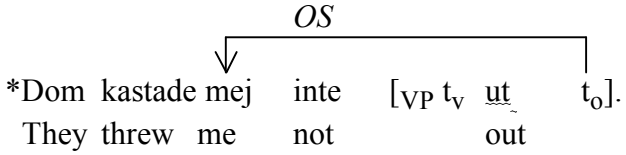
Crucially, however, though verb movement is necessary, it is not a sufficient condition for OS. As observed by Holmberg (1998), OS is blocked not only by an unmoved verb within *v*P, but by *any* material to the left of the object within *v*P. As (12a-b) shows, an unmoved indirect object or particle blocks OS of the direct object, even when the verb has moved:

(12) **OS blocked by unmoved *non*-verb within VP:**

a. **Unmoved IO intervener**



b. **Unmoved particle intervener**



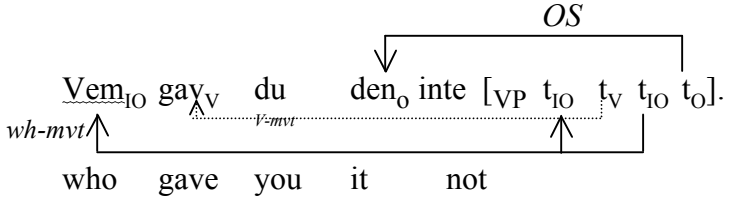
These data (not discussed by den Dikken) suggest that the Verb Phrase (perhaps *v*P, perhaps VP; see Ko (2005)) retains its status as a domain that blocks OS even when its head, the verb, raises to C. If the relevant domain is the *phase*, then we may conclude that the phenomena in (12) present a puzzle for Phase Extension.

At this point, one might attempt to retain den Dikken's account of (11) in terms of Phase Impenetrability and Phase Extension by offering a similar account of the data in (12). After all, the logic of "necessary but not sufficient" is such that we cannot be sure that the puzzle posed by (12) must be resolved with reference to the same properties of grammar crucial to (11). Den Dikken himself builds on a body of previous research on particle and double-object constructions by himself and others, for example, that might offer an independent explanation for these phenomena. He argues that both double-object and particle constructions involve the category RELATORP within VP. It might thus be the phasal status of RELATORP (rather than the Verb Phrase) that blocks OS in (11a-b). This approach is perhaps more plausible for (11b), where the in situ RELATOR head *ut* 'out' indicates that the RELATORP phase is unextended, than it is for (11a), where RELATOR has presumably raised, if the Scandinavian languages are like English.

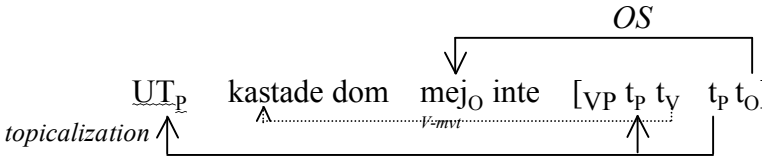
There is another serious issue to consider, however. Holmberg (1998) also observed that if the underlined interveners in (12) themselves undergo leftward movement to a high position in the clause, OS becomes possible. Crucially, the relevant movement appears to be A-bar movement (again, most obviously in the case of the indirect object), and not head movement:

(13) **OS not blocked when non-verb intervener moves further to the left**

a. **IO intervener moves (and V too)**



b. **Particle intervener moves (and V too)**



The A-bar movement of IO and particle in (13) is not the kind of movement argued by den Dikken to extend a phase. Instead, it is the kind of movement (if den Dikken is correct) that is sensitive to phase extension brought about by the raising of other elements.

Fox and Pesetsky (2005), developing and extending Holmberg's discussion in the context of CL, argued that the paradigm in (11)-(13) is explained in full if the crucial property of phases (there called *Spell-out Domains*) is not Impenetrability but Linearization. The precedence relations established at the end of each phase are irrevocable, and must be retained when later phases are linearized. Thus, if at the end of the verb phrase phase, the verb preceded its object (*V<O*), as in the case of OS, the object may move leftward out of the verb phrase only if the verb also moves so as to restore *V<O*. Otherwise, an ordering contradiction (*O<V*) will arise the next time linearization applies. This explains the data in (11). If an indirect object or particle comes between the verb and the direct object (*V<IO<DO* or *V<Particle<DO*) when the verb phrase is linearized, later movement of both verb and direct object — if it leaves *IO* or *Particle* unmoved — will produce an ordering contradiction (*V<DO<IO* or *V<DO<Particle*). This explains the data in (12).

On this view, what happens in (13a-b) is that *IO* or *Part* has undergone A-bar movement to the left edge of the verb phrase, as part of successive cyclic A-bar movement. Thus, when the Verb Phrase is linearized, *IO<V<DO* or *Particle<V<DO* order is established. Subsequent movement of *IO* or *Particle* to Spec,CP, coupled with OS and V-movement to C, reestablishes the same order in which the elements found themselves when the verb phrase was linearized.

The CL account not only needs no notion of Phase Extension in den Dikken's sense, but as a matter of logic *cannot* be coupled with this notion. It is absolutely crucial to the account of (12) and (13) that the Verb Phrase retains its phasal status even when its head raises — assuming, of course, that phasal status is relevant to linearization and does not yield impenetrability. This is why my alternative to den Dikken's proposal does not just deny PIC, but also denies that any phase is extended as a consequence of verb movement.

At the same time, it is equally important to note that our discussion does not necessarily call into to question the *full* package of ideas that constitute *Phase Extension* (the ideas "unpackaged" in (5)-(9)). What is really targeted by our discussion so far (besides PIC) is merely (8): the claim that the *phase-building property* of a phasal head

Φ is delayed (shows PD) in derivations in which Φ undergoes head movement. Since den Dikken's paper discusses so much more than just OS, it is of interest to ask whether a variant of his proposal that dispenses with Phase Impenetrability and denies (8) might continue to exploit the other ideas in his paper to explain the other issues taken up there. I will not undertake this task in full, but will focus on some of the data discussed in the first section of den Dikken's paper.

3. Property Delay

When a head H moves it is natural (if (5) is true) to ask which if any of the syntactic properties of H "travel with it". This question in turn divides into the two distinct considerations that we have described as PD (6) and PT (7). I focus here on PD, putting aside PT. PD means that one finds a property of a head H expressed only in its final position. In the previous section we have suggested, in disagreement with den Dikken, that the property of building a phase does not show PD. A verb, even if it will move to a higher position, still projects a phase *in situ*, blocking OS under predictable circumstances, as discussed above.

On the other hand, it might turn out that some other property of H does obey PD. Imagine that this property, even if it is not the phase-building property itself, interacts with the phase-building property to constrain and permit various sorts of extraction from HP. The result might be an observation that could easily be mistaken for phase extension. The control that a head exercises over its specifiers is just such a property. In this section, I want to advance the conjecture that specifier-related properties, unlike the phase-building property, do fall under PD. If I am correct then, head movement does transport a property relevant to movement to a higher structural level, just as den Dikken argues — but it does not transport the property discussed by den Dikken himself, but transports something else instead.

What might this alternative property be? Let us first recall the role played by edge positions in the two proposals about phases discussed above. In a CL conception, a left-hand specifier of a phase-head is a *de facto* escape hatch for leftward movement of α out of a phase ΦP because it places α in a position where it precedes the other elements of ΦP. If as a result of subsequent movement, α continues to precede the elements that it used precede, all is well. This result is most easy to achieve when α occupies the leftmost position in ΦP, since no movement of any other element is necessary in order to avoid an ordering conflict in the next phase. On the other hand, unless movement of other elements saves the day, leftward movement of a *non*-initial element out of ΦP is blocked if the leftmost specifier position within ΦP is unavailable to it.[2] This was the case, for example, in the starred examples of (11) and (12).

Let us now add to the discussion the fact that heads characteristically control not only the possibility of a specifier, but also the *kinds* of specifiers that may or may not merge to their projections. Imagine, for example, that we observe an element α to have moved from ΦP to Spec,TP. Imagine as well that the base position of α was not the leftmost position within ΦP, and we observe that no elements to the left of α within ΦP

have been extracted. We must conclude, of course, that α moved through the left edge of ΦP on its way to Spec,TP — but we can conclude something more as well. If the standard typology of positions is correct, we may also conclude that this left-edge position within ΦP was an *A-position*. Otherwise movement to Spec,TP would have proceeded from an A-bar position to an A-position — the pattern known as *improper movement* precisely because it seems to be generally excluded.[3]

If den Dikken is correct about the relevant underlying structures, then his examples of Predicate Inversion (repeated as (14b)) and Locative Inversion (repeated as (15b)) exemplify the situation just described. Their non-inverted counterparts in (14a) and (15a) show movement to Spec,TP of an element externally merged (base-generated) as the subject (specifier) of a RELATORP, but (14b) and (15b) show movement of a *lower* element (den Dikken's PREDICATE) leftward over that specifier. If RELATORP is a phase, then the raising of PREDICATE over the subject of RELATORP must stop at an A-specifier of RELATORP to the left of the subject, as diagrammed in (16):

(14) a. This book is the #1 best-seller in the country.
b. The #1 best-seller in the country is this book. (den Dikken's (4))

(15) a. This book lay on the president's desk.
b. On the president's desk lay this book (den Dikken's (5))

A-position

(16) ...[$_{RP}$ PREDICATE$_i$ [SUBJECT [RELATOR t_i]]]

As den Dikken notes, structures like (14b) and (15b) that show successful movement to Spec,TP of a lower over a higher RELATORP element also display another notable property. A-bar extraction of other constituents from RELATORP (whether the SUBJECT or some other element is extracted) appears to be impossible. Examples (17a-b) are den Dikken's (4) and (5); examples (18a-b) are added , for reasons discussed in footnote 5 below.

(17) a. *Which book do you think that the #1 best-seller in the country is __?
b. *Which book do you think that on the president's desk lay __?

(18) a. *Which book do you think that the #1 best-seller in the country is a translation of _?
b. *Which book do you think that on the president's desk lay a copy of __?

Den Dikken suggests that a third property is crucial to the inversion constructions of (14b) and (15b): head movement of RELATOR to a higher "meaningless" head F. According to his proposal, this head movement has as a consequence that RELATORP is no longer a phase. The phase is extended to FP, because (in his theory), the property of phase-building falls under PD. This makes it unnecessary for PREDICATE to stop in the A-position shown in (16), but does make it necessary to land in an A-position at the edge

of FP. This intermediate step is possible may be A-movement in den Dikken's view, but not A-bar movement, because of the Adjunction Prohibition that I have repeated in (3). Note that it is thus not RELATORP but the FP that is the island responsible for the deviance of (17)-(18) on this approach.

Suppose den Dikken is wrong to claim that phase-building falls under PD (as we argued in the previous section), but correct that head-movement of RELATOR to F is an obligatory concomitant of the inversions seen in (14b) and (15b). Why might this be?

One possibility is the following: though phase-building does not fall under PD, the property of licensing A-bar movement does. Consider the following possible characterization of the A vs. A-bar distinction:[4]

(19) **A vs. A-bar movement**
a. *Property of phase-heads*:
Phrasal movement triggered by a phase-head is A-bar movement.
b. *Default*:
Phrasal movement is A-movement.

The statements in (19) correspond at least approximately to common conclusions about movement. If TP is not a phase, for example, we correctly predict that movement to Spec,TP will have the properties of A-movement. Likewise, movement to Spec, CP will have the properties of A-bar movement, if C is a phase (but see below).

Now imagine, however, that (19a) falls under PD. This means that the derivation will count as movement triggered by phase-head Φ only movement triggered by Φ in its final position. As a consequence, if RELATORP raises to a higher head F, movement to Spec,RELATOR will not count as A-bar movement. By the default rule (19b), it will count as A-movement. This is just what is needed to derive (14b) and (15b), with (16) as the crucial intermediate step. The raising of RELATOR is also crucial, so that the intermediate step (whether required by CL or PIC) does not count as A-bar movement, which would block later movement to the A-position Spec,TP

If (19a-b) are correct, however, the raising of RELATOR to F not only permits A-movement to the edge of RELATORP, as in (16), it also *prevents A-bar movement* to this edge. That is what I mean when I suggest that "(19a) falls under PD". This consequence would be of no significance if RELATORP were not still a phase, but if we are correct in our conclusions in the previous section, it does still behave as a phase for all purposes except those that fall under PD. We thus predict the island effects in (17)-(18).[5] Note that the Adjunction Prohibition in (3) is irrelevant to this proposal, since it is RELATORP rather than FP that constitutes the island.

In a sense, the alternative sketched here could still be called a kind of "phase extension". No locality domain is extended, to be sure, but I have posited one phasal property whose impact on the derivation is delayed as a consequence of head movement. As such, our proposal (though not self-evidently correct, needless to say) is reasonably at

home amidst current discussions of the nature and *raison d'être* of phases, and is conceivably more at home than den Dikken's alternative. It makes some sense that the building of a thematically complete domain like *v*P constitutes a point in a derivation that might trigger an encapsulation procedure of some sort. The triggering of such phase-driven procedures is reasonably a property of the derivation itself. In contrast, the licensing of a particular flavor of specifier might be understood as a *lexical* property of the kinds of elements that build phases. If so, we might therefore not be surprised to see such properties "travel with" those elements when they move, much as segmental phonological properties might be understood as "traveling with" moving elements. Whether these remarks have the ring of truth, or merely the ring of truthiness[6] is a judgment I will not attempt here.

These considerations are probably relevant to one issue left undiscussed so far: whether the phase-building property shows PT. For example, when RELATOR moves to F, does FP inherit phase-hood from RELATOR (even if, as I have argued, RELATORP itself remains a phase)? If it does, it might be important that F+RELATOR can trigger A-movement, or else the PREDICATE in (14b) and (15b), having moved to the left edge of RELATORP, would have the new problem of escaping FP. Here we lack relevant evidence to decide the open questions. If F is phonologically null, and if this fact exempts F from linearization, then perhaps even if FP is a phase, PREDICATE may be extracted from FP without any linearization issues arising. On the other hand, it might be the case that the F component of F+RELATOR licenses A-movement, even if the RELATOR component licenses A-bar movement, in which case movement of PREDICATE through the edge of FP might be possible. For these and similar reasons, we must leave the question of PT for the phase-building property open.[7]

One final worry relevant to both den Dikken's proposals and my own speculative alternative concerns the reality of the posited head movements, which have no phonetic reflex (since the moving element is phonologically null).[8] To be sure, other environments do show overt RELATORs (as extensively discussed by den Dikken (2006)). Still, one should demand independent evidence not only for the existence of a RELATOR but also for the existence of F in the structures under discussion here. If such evidence is not forthcoming, one might at least hope to find evidence that correlates other overt movements with the delay of an A-bar specifier property.

One obvious possibility lies in the cross-linguistically common cooccurrence of A-bar movement to Spec,CP with verb movement to C, as in English:

(20) a. Who will Bill speak to?
b. *Who Bill will speak to?

In the final sections of his paper, den Dikken presents the intriguing proposal that CP functions as a phase only by virtue of V-movement to C. A counterpart to such a proposal (if phase-building does not fall under PD, but the A-bar specifier property does) might identify a different property, perhaps the A-bar property itself, that belongs

lexically to V or *v*, but can be delayed until CP when V-to-C movement applies. I leave further consideration of this conjecture for further work.

Notes

[1] The point is not trivial. The claims in (5) have been called into question by Chomsky (1995), Mahajan (2000), Koopman & Szabolcsi (2000), and others because of several differences between the apparent properties of head movement and the properties of phrasal movement. For example, the ultimate result of Head Movement in most well-known instances is a word (or subpart) rather than a phrase. As a consequence, a head H raised to a head X does not straightforwardly c-command its original position. A particularly interesting resolution to these and others has been provided by Matushansky (2006), who argues that head movement is actually normal specifier formation, formally identical to phrasal movement — but feeds a distinct process of *m-merger* that forms a word out of a specifier-head configuration, so long as the specifier is itself a syntactically simplex head.

[2] I am not considering possible differences between specifier and adjoined positions in these comments, and will generally use the term "specifiers" even for cases where one might posit adjunction.

[3] For the purposes of these remarks, I omit any discussion of *why* improper movement might be excluded. It is, of course, quite possible that the correct explanation for the impossibility of movement from an A-bar to an A-position will be relevant to other issues discussed here.

[4] I ignore here some important recent work on this distinction, such as Chomsky (2005), which would require a much fuller discussion and consideration of alternatives.

[5] Exactly how these effects are predicted might be slightly different in the two sets of examples (which is why I added (18) to den Dikken's data). *Wh*-extraction in (18) comes from a lower phase, and therefore must proceed by A-bar movement through RELATORP. This is the more straightforward case. Since A-bar movement to the edge of RELATORP is blocked by the same consequence of RELATOR-to-F raising that allows A-movement through this edge, the result is an ordering contradiction in the Cyclic Linearization theory (and presumably a Phase Impenetrability problem in the alternative proposal that assumes (2)).

The *wh*-phrases in (17), however, are not coming from a phase lower than RELATORP, and therefore might be able to proceed by A-movement through the edge of RELATORP, undergoing A-bar movement only later in the derivation. The relevant configurations have another key property, however, that might be relevant. If the A-movement of PREDICATE to Spec,RELATORP forms an outer specifier, with the nominative SUBJECT externally merged as an inner specifier, linearization of the A-moved PREDICATE and the SUBJECT at the conclusion of RELATORP will be PREDICATE<SUBJECT. Later *wh*-movement of the SUBJECT to Spec,CP will reverse this

order, yielding a contradiction. The only imaginable alternative would be A-movement of SUBJECT from inner Spec,RELATORP to form an outer specifier — also of RELATORP. This kind of movement is perhaps unformulable as an instance of triggered internal Merge, and has in any case been extensively argued not to exist by Ko (2005), who considers precisely this configuration in a variety of contexts in Korean, Japanese and other languages.

[6] See http://en.wikipedia.org/wiki/Truthiness for this concept.

[7] Note that we have argued for PD of the A-bar property not on the basis of F+RELATOR triggering A-bar movement, but on the basis of RELATOR triggering A-movement in derivations where RELATOR moves to F. Another interesting question concerns whether there is independent evidence for or against the claim that RELATOR may trigger A-bar movement in its final position. This question is closely connected to the question of phasehood for FP in such environments.

[8] I omit discussion of the contrast in den Dikken's (16a-b), where the overt particle is claimed to be an instance of overt RELATOR. This may be the case, but I am doubtful about the claim that double-object constructions instantiate the kind of inversion relevant to the current discussion. In Pesetsky (1995, 221-223), for example, I argued that the indirect object is underlying higher than the direct object, in disagreement with den Dikken's current proposals. In addition, the unacceptability of extraction of the direct object from a position following a particle, as in den Dikken's (16b), quoted below as (i), seems to me to show a different profile from the island effects characteristic of predicate inversion and locative inversion. As my (18a-b) show, the effects found with predicate and locative inversion are true island effects, in that *any* extraction from the relevant domain is blocked. (My examples show extraction of a subpart of the SUBJECT.) The same is not true of the effect seen with particles and double object constructions. Here it is crucially the double object itself that may not be extracted. Extraction of a subpart of the direct object, by contrast, is not deviant:

(i) Which paper of yours do you think that you sent your students (*out) __.
(ii) Which paper of yours do you think that you sent your students (out) a copy of __.

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