

Object Shift and linearization at the PF interface

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Abstract

Both target articles, in conformity with minimalist ideals, aim to discover to what extent syntax itself can be relieved of descriptive burden, and just how much of word order can be attributed to mechanisms of linearization at the PF interface. I point out two paradoxes the treatment of V2 gives rise to in Ertshik-Shir's paper, and dispute the status and effectiveness of processing constraints in accounting for (un)grammaticalities in various word order patterns. I discuss the relation of Fox and Pesetsky's cyclic linearization algorithm to 'tucking in' as well as to the 'Attract Closest' property of movement. Qualms are raised regarding several apparently stipulative and/or conceptually unattractive properties of the linearization mechanism, and ostensible violations of order preservation are examined.

1. Introduction

What makes the juxtaposition of the two target articles in this volume particularly thought-provoking is that both are directly concerned with issues of linearization at the PF interface of the grammar, aiming to discover to what extent syntax itself can be relieved of descriptive burden, and just how much of word order can be attributed to PF mechanisms. In addition to the shared interest in architectural considerations of division of labor, Scandinavian Object Shift (OS) plays a key role in both argumentations.

The role of linear order and PF is central to a number of current theories of OS, most notably Holmberg (1999) (where in fact OS is treated essentially as a PF operation) and Chomsky (2001)¹, as well as Bobaljik (1995, 2002) (where PF-adjacency functions prominently). The two target papers can be considered members of the 'PF' family of accounts of OS. Both studies make assumptions with intriguing consequences for the analysis of OS and far-reaching implications beyond. In what follows, I elucidate my main concerns about each of the two proposals, and also spell out several of their apparently desirable consequences.

2. Linearization and PF operations

Ertshik-Shir (ES) argues in favor of a radical position according to which a number of displacements that are commonly viewed as syntactic are to be viewed as resulting from operations at PF. The essential claim about OS defended by ES is that it does not exist: it is the result of the PF operation of Prosodic Incorporation (PI) of prosodically weak elements (pronominal objects and weak adverbs like negation) and adverb linearization (adverbs are assumed to be merged to the phrase they modify in a third dimension, cf. e.g. Áfarli 1997), interacting with independently necessary displacements. Basing herself on these fundamentals, ES provides an engagingly detailed treatment of OS phenomena across Scandinavian.

One significant advantage of ES's approach, beyond its impressive coverage of variation across Scandinavian, is that it provides a straightforward explanation of why OS has 'no effect' (it has neither A- nor A-bar properties: it does not affect binding configurations, does not license parasitic gaps, or give rise to weak crossover effects). The reason is simple: no independent displacement of OS exists. Another welcome consequence of this idea is order preservation in constructions with multiple objects and multiple adverbs: since objects do not shift, their order will remain unaffected even if adverbs get linearized in between or after them.² The approach is also designed to furnish a fairly direct answer to

¹ Interpretive conditions and effects (cf. specificity, focus) figure both in Holmberg (1999) and in Chomsky (2001). The LF interface is left to the side in both target articles.

² As far as 'free ride' to V2 is concerned, given the order inside VP, only the IO, or both IO and DO, can be incorporated and be taken along to V2, but DO alone cannot.

the question of why weak pronouns are the typical elements undergoing OS. This is due to the assumption that it is weak pronouns (as opposed to full-fledged DPs) that have a need to be PI-ed. Finally, ES's system effectively rules out an inadmissible VP-topicalization construction that would cause trouble for many accounts of OS. In this construction the fronted VP contains the verb and the direct object, but not the indirect object (schematically: [V __ DO] . . . IO . . . ; cf. Fox and Pesetsky's (30b)). Such a structure is excluded on ES's assumptions once again due to the fact that there is no OS per se: the indirect object cannot be removed by OS from the VP prior to VP-topicalization.

If viable, ES's account is bound to emerge as an extremely competitive alternative on the OS scene. However, in order to really get the approach off the ground, several complications need to be resolved and a number of points must be clarified.

2.1 PF-operations and adverb linearization

One aspect of the account that needs clarification is the analysis of verb displacement to the V2 position, which gives rise to two intricate paradoxes with regard to V2.

On the one hand, it appears that V-movement to V2 must be a PF phenomenon (as suggested by ES), for two reasons. First, the PF operation of PI can feed it. Second, in ES's model V-movement to V2 needs to be made sensitive to targeting a linearly second PF position (the V2 restriction applies at PF). This latter requirement is necessary: otherwise several contrary-to-fact word orders would be generated, for instance orders schematically represented in (1a) and (1b). (1a) is the result of PI of DO into IO, which in turn gets topicalized; in (1b) it is the subject pronoun that is PI-ed into V proclitically, feeding movement to V2.

- (1) a. *IO+DO V ... Adv ...³
 b. *Obj Subj+V ... Adv [...]

Paradoxically, on the other hand, V-movement to the clause periphery appears to be a syntactic, rather than a PF operation. First, if it is construed as PF displacement, yes-no questions turn out to pose a complication. The reason is that in this clause type a phonological V2 restriction remains inapplicable, hence (2), where the subject pronoun PI-s into V prior to V-movement, is ruled in, contrary to fact.

- (2) *Subj+V ... Adv [... Obj]

Another indication that V-movement to the periphery is syntactic is that it can have scopal effects when the moved verbal item is scope-sensitive (this is true of head movement more generally, cf. Benedicto 1997, Müller 2002, Note 2 and references cited there; see Zwart 2001 for arguments against a PF-treatment of head movement).

A further significant shortcoming of ES's proposal to treat V-movement to V2 as a PF displacement, which again speaks in favor of a syntactic analysis, is that the motivation of this operation is ill-founded. On the one hand, a PF V2 restriction is doubtful in view of systematic exceptions to such a phonological constraint in Mainland Scandinavian (which even PI into the V cannot explain away), as discussed in Egerland (1998) and Nilsen (2003: 79–80). On the other hand, the proposed discourse-functional trigger, namely that V in the V2 position serves to demarcate the topic and the semantic predicate expression (p. 19), is doubtful for several reasons. For one, the restriction that topics in Scandinavian are unique should suffice to identify the border of topic and predicate phrase. Also, the idea involves a clear lookahead property: at the point where V is moved to the edge in the derivation, no topic exists to its left. Further, if V2 is to mark topicalized material, then the question is why topicalization is not invariably linked to V2 across languages.

The apparent, and apparently contradictory, conclusions are that within ES's model, V-displacement to the V2 slot must be a PF operation, and at the same time, it must be a syntactic movement.

³ IO=indirect object (a lexical DP in (1a)), DO=direct object (a weak pronoun in (1a)). ES's example (6d) would also be left without an account without maintaining a phonological V2 constraint: the proposed phi-intervention constraint cannot apply there, since the object pronoun is morphologically marked (cf. §2.2).

A second paradox concerns the order of operations. Consider the sentence pattern in (3) below, where an indirect object has been topicalized/*wh*-moved, while the direct object pronoun has undergone OS, being given a free ride by the verb.

- (3) IO_{Top/Wh} V+DO_{Pron} ... Adv [...]
²Honom gav + dig Kleopatra inte (Swedish)
 he-dat gave you-acc K. not
 ‘Cleopatra did not give you to HIM’⁴

It is clear that V-movement to the edge (=V2) must precede topicalization (=TOP) in the derivation generally (whether V-displacement is phonological or syntactic): V2 < TOP. However, at the point where movement of the verb applies, V and DO are separated by IO, hence PI could not have applied. The only way to derive (3) is if TOP < V2, hence an operation ordering paradox is derived.⁵

2.2 Linearization and processing

The other major component of the system that, in my view, gives cause for concern is the status and effectiveness of applying processing motivations in accounting for (un)grammaticality of linearization patterns. The first issue is the status of restrictions derived from processing. For instance, if ID (=ES’s (16)) is a processing constraint, then it is unclear (i) why it should apply to production too, and (ii) why it should be inviolable. As regards question (ii), although it is true that in the absence of any other disambiguating factor ID is frequently taken to be the processing strategy applied, various pragmatic clues, including animacy or previous discourse, can trigger a violation of ID, even if neither the subject nor the object is grammatically marked (morphologically, or through their position). This should mean that ID cannot be made responsible for outright and exceptionless ungrammaticalities.

ES’s model also relies on a processing constraint which blocks elements with phi-features from intervening between subject and verb (or verb and subject) (p.3). ES claims that this constraint is derived from ID (though it is unclear how exactly this is done). Indeed, from her discussion of ‘long OS’ in Swedish (p.13) it appears that the phi-intervention constraint, as a corollary of ID, applies only in cases where neither the subject nor the object is grammatically marked as such. However, then, contrary to ES’s intentions, examples like her (12) (given below as (4a)) are not ruled out: the object pronoun is morphologically marked.⁶ The same type of problem arises for ID itself: ES’s (23a)=(4b) should not come under the effect of ID, since the object is marked as such. Thus, the example is (falsely) predicted to be well-formed.

- (4) a. *I går mødte + ham Peter ikke (Danish)
 yesterday met him P. not
 b. *I går mødte ikke Peter ham

Further interesting questions arise regarding VOS and SOV languages. For it is far from obvious whether ID and especially its corollary, the phi-intervention constraint, wouldn’t prove much too restrictive in view of various word order patterns available in these language types (even if ‘positional clues’ are taken into account). Clearly, if they are to be effectively exploited, the status and scope of processing constraints in the account should need further elaboration.

3. Linearization and derivational cycles

⁴ In the interest of an animate DO pronoun, the example involves a scenario where slaves are talking about who Cleopatra didn’t give one of them to as a present. Note that this pattern cannot be generated even by a rule of ‘metathesis’ postposing the subject (cf. ES’s discussion of long OS). Thanks to Jonas Winnerlov and Kristina Marosi for help with Swedish data.

⁵ Regarding the issue of the ordering of operations, even though ES claims that no (extrinsic) ordering of her PF operations is necessary, this contention is challenged as far as the operation of adverb linearization (AdvLin) is concerned. This is because AdvLin needs to obligatorily follow both V2, subject raising, as well as clause-internal subject movement (which operation is still required) if the account is to be prevented from overgenerating by allowing linearized and PI-ed weak adverbs a ‘free ride’ indiscriminately, thereby giving rise to reordering of adverb sequences.

⁶ Her (6d) is also left without an account, unless a phonological V2 constraint is introduced, cf. Note 3.

Fox and Pesetsky (F&P) explore to what extent combining a particular algorithm of linearization with a phase-based derivational theory (Chomsky 2000, 2001) can derive constraints on the computation of word order. In particular, according to their proposal relations of precedence are computed cyclically at the completion of each phase, and precedence relations once established in the course of a derivation must be conserved.⁷ F&P's account of HG qua order preservation straightforwardly extends to derive the order conservation property of constructions involving multiple objects and multiple adverbs as well.

The main appeal of the proposal lies in the fact that it exploits a property of the current multiple Spell Out model of minimalist theory that is independently necessary (i.e. some linearization algorithm must be part of Spell Out) in order to provide a unified explanation of a set of apparently unrelated word order restrictions (including HG), as well as a deep property of (long) syntactic movement in general: its successive cyclic nature.

3.1 Tucking in and Attract Closest

Given the order preserving character of cyclic linearization, as far as I can see, the approach can potentially derive 'tucking in' patterns involved in certain multiple movement constructions (e.g. multiple *wh*-movements) discussed in Richards (1997, 1998) and in much recent work. According to Richards, 'tucking in' involves multiple movements to a projection where the element to be moved later, instead of extending the root node, 'tucks in' countercyclically below the elements that have already been moved.⁸ 'Tucking in' appears necessary in the context of the Attract Closest property of movement, which is built into Attract (Chomsky 1995) / Agree (Chomsky 2000, 2001) by definition. This is because if the closest relevant item has to be moved first (by Attract Closest), then the original hierarchical relations (and hence, order) are preserved only if the next moved item lands below the one that has already been moved. Importantly, F&P's system can potentially derive tucking in patterns without actually 'tucking in', i.e. without introducing any countercyclic movement operations.

It can do so, because it may well allow us to drop the Attract Closest property from the definition of Move (i.e. Attract/Agree). In fact, such an amendment would constitute a significant improvement in the minimalist theory of movement. For one thing, the Attract Closest property is a plain stipulation as it stands, even though it is commonly claimed to be motivated by the need to minimize operational complexity, which is a corollary of the Strong Minimalist Thesis (cf. Chomsky 2000, 2001). The problem with this claim is twofold. On the one hand, the Attract Closest property reduces operational complexity only if the 'search for Goal' operation is taken literally to be a search operation. As far as I can see, however, there is no compelling reason to assume that movement needs to involve a search operation in the model of competence, and indeed the 'search for Goal' operation itself is left undefined: if it were defined, it would very likely involve selecting syntactic items one after the other based on a given ordering of those items as determined by an algorithm operating on the syntactic hierarchy. If such an incremental selection operation and an independent order-determining algorithm were indeed part of the competence model, then that would clearly add to the complexity (and operational complexity) of the model itself, making it less optimal. On the other hand, the Attract Closest property is a major hindrance to efforts aiming to eliminate the remaining representational residue of the derivational minimalist approach: insofar as it involves a search operation carried out on a (partial) representation, the model continues to remain a mixed derivational–representational theory (cf. Brody 2002). Significantly, Attract Closest in fact becomes to a large extent redundant if F&P's proposal is correct: if elements E_1 and E_2 are of the same type [E] and E_1 c-commands E_2 at some

⁷ This conception places F&P's approach in the family of approaches to OS/HG which crucially draw on an 'order preserving' property of syntax, cf. e.g. Müller (2001), Sells (2001), Williams (2003). An area that could furnish supporting evidence for F&P is apparent rightward movements. Providing that such movements exist, the prediction is that rightward movement is restricted to phase-final elements (a potential case in point is Right Node Raising), unless rightward movements touch down at the right edge of the phase, or more than one element gets right-moved, in which cases their relative reordering should be possible. If rightward movement is in reality movement to the left (call it M_1) followed by movement of the remnant (call it M_2), then it must be noted that F&P's particular implementation of 'order preservation' is unique in that a shape conserving motivation for remnant movement is absent if (i) M_1 has moved from one phase to another via an 'edge' position, or (ii) if M_1 is a phase-internal movement, and in that M_2 is not triggered immediately after M_1 : M_2 can be delayed up until the completion of the phase.

⁸ 'Tucking in' movement may well be the only remaining non-root-extending transformation if head movement is not to be analyzed as involving head-adjunction, as is held by a variety of recent proposals.

phase PH, they will be ordered as $E_1 < E_2$. As this order must be preserved, if a probe attracting type [E] is introduced in the derivation, only E_1 can be moved, while E_2 cannot, because that would reverse the established order.⁹

If Attract Closest turns out to be eliminable, that is a significant and welcome consequence in itself, as I have argued.¹⁰ Returning to ‘tucking in’ patterns now, if Attract Closest can be dropped, they are clearly derivable without countercyclic movements. This is because we are free to move to the current projection a ‘more distant’ element (say, and object *wh*-phrase) first, and a ‘closer’ element (say, a subject *wh*-phrase) next, extending the root at each step, as long as at the completion of the phase (say, CP), the order of the moved elements is unchanged compared to their original order. This is a highly attractive perspective, one that evidently opens up an array of interesting novel research questions.¹¹

3.2 Cyclic linearization

One aspect of the model that needs some further elaboration, in my view, is the linearization algorithm itself. Two qualms relate to the status of notions figuring in the Laws of Precedence. The first concerns the fact that in the Laws themselves (cf. F&P’s (48)) the notions specifier and complement play the key role. Linearization can rely on such notions at no theoretical cost only if they are, or can be derived in a non-stipulative fashion from, primitives of the theory – an issue that remains elusive in the paper (see Epstein (1999), and especially Brody (1997), for relevant discussion).¹²

Second, the fact that non-last (i.e. trace) occurrences of an element (taking movement to be re-merge, as assumed by F&P) do not count for linearization is given more or less directly as a stipulation: the ‘X is the mother of α and β ’ condition seems to be inserted in the Laws of Precedence merely to then define ‘mother of α ’ as “the constituent formed by the most recent Merge of α ” (F&P’s (49)), thereby restricting the scope of the Laws of Precedence previously given to exclude non-last, i.e. trace, occurrences.¹³

A final comment concerns the proposed execution of the cyclic property of linearization. F&P suggest that the choice of linearization mechanism they put forward is in part “dictated by a consideration of the degree of redundancy that is allowed to exist” in the final set of ordering statements. One aspect of this linearization mechanism is that at each phase level *all* nodes created up to that point are ordered. Crucially, contents of the current phase are ordered not only with respect to each other, but also they are determined to precede material of the next lower phase (call this ‘on-line’ ordering). The point to emphasize here is that this is by no means an inherent property of a phase-by-phase (cyclic) linearization; it is an additional feature. This additional feature is required, however,

⁹ The question of cases where E_1 does not c-command E_2 , but is contained in a phrase that c-commands E_2 , must also be addressed. However, a model incorporating Attract Closest is no different: the same issue arises there too.

¹⁰ In fact, if the cyclic linearization algorithm and Attract Closest exhibit large-scale redundancy, then ideally, one of the two must go. I have suggested that optimally it is Attract Closest that is to be dispensed with. However, if there still remains independent motivation/need for Attract Closest (that is not covered by the linearization algorithm), then that can be held against the linearization algorithm itself. Potential scenarios where Attract Closest can, but cyclic linearization cannot act to constrain derivations include cases where E_1 and E_2 are both contained within the same phase (or rather, the same ‘slice’, cf. §3.2), or where E_1 and E_2 are in adjacent phases. For instance, in languages where VP functions as a Spell Out domain, cyclic linearization does not effectively derive superiority of subject over object either in *wh*-movement to CP or in A-movement to TP.

¹¹ Chomsky (2004) suggests that A-movements may not alter previously existing hierarchical relations that A-bar movements are sensitive to. This would neatly follow from an account of ‘closeness’ along the lines laid out above (whereas it potentially poses a problem for ‘Attract Closest’; Chomsky’s (2004) proposal is that A-bar movements to CP re-merge occurrences located within the ν P, instead of those in the TP/AgRP-domain). This is because ordering relations established at the ν P phase remain unaffected in the derivation up until the CP node even if the hierarchical relations introduced above the ν P level reverse those that have existed within ν P.

¹² In Brody’s Mirror Theory, where the (sole) rule of linearization orders specifiers to precede heads, ‘specifier’ is a primitive of the theory (while ‘complement’ is not).

¹³ A closely related issue is whether copies/occurrences created by covert movement matter for Laws of Precedence. On F&P’s definition at least covert category movement (argued elsewhere by Pesetsky to exist) should count, as it creates a new occurrence. If, however, covert movement is not relevant for some reason (for instance, if covert movement does not create new occurrences, e.g. because it is Agree or FF-movement), then in so far as cyclic linearization is assumed to be responsible for successive cyclicity, covert movements are not expected to proceed successive cyclically. Indeed, this is an assumption that was frequently made in GB theory to account for the lack of *wh*-island and other Subadjacency effects with certain in situ elements, especially *wh*-in-situ (cf. Watanabe (1992) and references cited there).

quite apart from considerations of (non-)redundancy, if one is to effectively capture the successive cyclic nature of (long) movement.

It is the operation Linearize (52) that plays the key role in achieving ‘on-line’ ordering. Linearize orders with respect to each other first and last elements of such complex nodes that are already in a precedence relation, and this applies also to phasal nodes themselves. For instance, a clause-embedding head *V* and the (leftmost element in the leftmost) XP in the edge of *V*’s phasal complement CP will be ordered upon the completion of the next phase above *V*.¹⁴ If *V* = *wonder* and XP = *what*, *wonder* < *what* is generated, correctly. Consider the case when there is yet another clause-embedding predicate above *V* = *think* (as in [_{CP1} *What did you say* [_{CP2} *they think* [_{CP3} *we bought?*]]]), and the derivation is at stage CP₁. Now it crucially matters at this point whether (i) *what* itself (when in the edge of CP₃) was ordered with respect to *think* at the CP₂ phase level (and derivatively with respect to other elements of the CP₂ phase), as F&P assume, as part of Linearize, or (ii) only the phasal category CP₃ was (and the final set of ordering statements applying to terminal nodes is computed at some later stage, e.g. when the derivation is completed). Assume (ii), contra F&P, for the sake of the argument. In the case of (ii), *what* would be ordered at the CP₃ phase level to precede all other material of CP₃, and at the CP₂ phase level *what* would not be directly concerned in new ordering statements. Continuing this derivation, at the CP₁ phase level *what* is moved to [Spec,CP₁] for *wh*-feature-checking reasons. *What* now still precedes material in CP₃, and importantly, *what* itself has not been ordered up to the CP₁ phase level with respect to anything other than material in CP₃, hence no ordering contradiction ensues by moving *what* from [Spec,CP₃] to [Spec,CP₁] in one fell swoop. In short, the successive cyclic property of (long) movement is not derived. Assuming (i) (i.e. ‘on-line’ ordering), in contrast, effectively enforces successive cyclic movement: *what* must be moved to the left edge of CP₂ at the CP₂ phase level, otherwise it would be fatally trapped in [Spec,CP₃] by virtue of being ordered after *think* (and hence all material belonging to the CP₂ phase). Then, apparently, an ‘on-line’ execution of cyclic linearization is required to be able to derive successive cyclicity of movement.

3.3 Spell Out domains

In their account of HG and the ‘Inverse Holmberg Effect’ obtaining in Scandinavian Quantifier Movement, F&P propose that (i) OS does not proceed through a verb phrase edge, and (ii) in Scandinavian languages the relevant Spell Out domain (which for F&P equals (strong) phase) is VP instead of *vP*. The first assumption is stipulative as it stands – if compliance with subsequent ordering statements can drive movements to phase edges in general, it should also be able to do so in OS. Assumption (ii) is crucial, because if the subject was included in the first Spell Out domain, then the verb would never be able to surface to its left at a later stage, which is contrary to fact.¹⁵ Clearly, identifying VP instead of *vP* as the first (strong) phase is a departure from standard assumptions. It is not obvious whether the set of evidence that has been taken to motivate movements that target the edge of *vP* (e.g. stranding, reconstruction facts) can entirely be reinterpreted as being in conformity to a VP-edge based analysis – this remains to be demonstrated.

More interestingly, intriguing predictions are made for OV V2 languages like Dutch or German. Given their V2 character, here too VP must act as a Spell Out domain instead of *vP*.¹⁶ Assuming a VO base and O-to-[Spec,AgrOP]/[Spec,*vP*] to derive surface OV order, the expectation is that O must raise to [edge,VP] in OV patterns, but must not in V2 clauses (except if it ends up in [Spec,CP]). On an OV base hypothesis, the VP itself must minimally contain a further XP that dominates the basic constituent of O+V. This is necessary in order to allow *V* to precede *O* at the VP-phase level, which is necessary in V2 clauses. It would be interesting to see what independent support can be found for these predictions on either the OV or the VO theory of the base.

3.4 Conflicts in linearization and crash

¹⁴ I disregard here *vP* phases in order to keep the presentation simple; the point of the argument is not affected by this idealization.

¹⁵ Another factor that enforces (ii) is the existence of constructions involving OS across of *in situ* subjects in Icelandic (cf. e.g. Jonas 1996), as well as ‘long OS’ in Swedish.

¹⁶ The same applies to VSO languages: otherwise VSO orders would not be able to arise.

In some varieties of Norwegian and Swedish direct object pronouns can be shifted across a VP-internal indirect object pronoun (Hellan and Platzack 1999). In addition, in all dialects of these languages the direct object may precede the indirect object when both pronouns are shifted. These patterns involve apparent violations of order preservation. The strategy for F&P is to argue that they are indeed merely apparent exceptions. To do so, they need to assume some VP-internal movement of DO above IO. Another set of cases that seem to disobey order preservation are instances of passivization of a DO across an IO, which is permitted in Norwegian and Swedish.

- (5) En bok ble gitt Jens (Norw.)
 a book was given J.

Importantly, VP-internal movement of DO above IO will not save such examples, since that would yield an ordering where DO follows the verb at the Spell Out of VP, which in turn would effectively prevent the passive transformation itself. Then here, it seems, some other movement must be at work, placing DO to the left of the verb at the VP-level.

Beyond the need for auxiliary movements, this crucially means that F&P's system does not appear to be capable of capturing a prominent correlation within Scandinavian (cf. Anagnostopoulou 2004 for this general point): Danish and Icelandic do not allow the crossing of IO by DO either in OS or in passives, while Norwegian and Swedish permit both in both types of constructions (cf. Anagnostopoulou 2003).¹⁷

A final note on the status of linearization conflicts is in order. F&P's model has a prominent property that may well be considered a weakness: it relies heavily on crash. Movements to phase edges are not locally triggered (or locally determined to be inevitable), but are enforced if the derivation is to avoid a final crash (e.g. unless a *wh*-phrase has moved to (all) the intermediate phase edge(s), it will be unable to move to [+wh] C). This property is problematic if syntax is to be crash-proof on minimalist assumptions, as convincingly argued by Frampton and Gutmann (2002).

4. Concluding remarks

Despite these criticisms, I am confident that both approaches can be further developed to meet the challenges highlighted here. Although OS is on center stage in both papers, the scope of the proposals being put forward goes well beyond OS: albeit in radically different ways, both theories exploit linearization at the PF interface, opening up intriguing new perspectives in accounting for word order in general. This appears a fruitful direction of research which is fully in line with minimalist principles: the burden of explanation is being pushed from within syntax to the interfaces.

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¹⁷ Another case of apparent conflict in the linearization process is presented by floated object quantifiers in OS; but see Holmberg (1999, Note 11).

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