

# Putting Phases into Perspective<sup>\*</sup>

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## 1. Introduction

The goal of the present paper is to examine the notion of phase, introduced by Chomsky (2000) as part of the attempt to develop a minimalist program for linguistic theory. Although we agree with the general vision and virtually all the arguments made by Chomsky over the years regarding the Minimalist Program, specifically with Chomsky's general (conceptual) argument for phases (viz. computational load reduction), we think that phases as currently conceived of are not optimal tools. We first catalog technical similarities between *barriers* (Chomsky 1986) and *phases* (Chomsky 2000, 2001, 2004b), in order to show how closely related both notions are, and to show that phases may not be such a new tool in linguistic theory after all. From a minimalist perspective, this means that phases must be subject to the same minimalist critique that, say, government was subject to. That is, there must be strong conceptual and/or empirical reasons to keep them as part of the theory. Based on the parallelisms between phases and barriers, we argue that arguments against barriers raised in (late) GB-times in fact carry over to phase-based computations.

In addition to drawing parallels between barriers and phases, we also list a series of technical problems that are specific to phases, which, taken as a whole, suggest that exploring alternative minimalist conceptions of locality are worth looking for. Developing such alternatives requires monograph-long treatments and hence cannot be adequately discussed here, but we close this paper with a list of properties that alternative conceptions of locality might have.

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## 2. Phases: A brief overview

In this section we briefly review the core properties of phase-based derivations, focusing on the aspects that will be relevant throughout this paper.

Chomsky (2000) argued for a more radical departure from the standard Y-model of grammar inherited from the Extended Standard Theory and Government-Binding eras than the position he took in the original minimalist paper (Chomsky 1993). Chomsky proposed that syntactic derivations proceed in incremental chunks, called *phases*, with each phase built from a separate lexical sub-array. (For related proposals, see Epstein et al. 1998, Uriagereka 1999, Grohmann 2003.) According to Chomsky, the syntactic phases are ( $\theta$ -complete)  $v$  and C, V, T, and N aren't, and other categories are not discussed.

The general idea behind phases is that once these domains have been built, their contents are immediately transferred to the interfaces. This, according to Chomsky, accounts for why  $\theta$ -complete  $v$  and C are 'isolable' at the interfaces. Chomsky cites evidence from fronting, extraposition, pseudoclefting, and response fragments on the PF-side; on the LF-side, he takes phases to be "propositional" units (Chomsky 2000: 106).

Exactly what is transferred is not so clear, since Chomsky claims that the edge of the phase (the head plus any number of specifiers) remains accessible at the next higher phase. Specifically, he formulates the *Phase Impenetrability Condition* (PIC), which says that once a phase has been completed, the internal domain of a phase (i.e. the complement of the phase head) is not accessible to operations at the next higher phase. Worth mentioning at this point is the idea that material inside the internal domain of a phase can bypass the effects of the PIC by moving to the edge of the phase via 'indirect feature driven movement'. This movement is triggered by a "P(eripheral)-feature" in Chomsky 2000 and by what we call a "generalized EPP" in Chomsky 2001, 2004b — either understood as a feature in the technical sense or simply taken to be a grammatical property of some sort (such as a licensing condition that a specifier be filled). It is this indirect feature-driven step that ensures that long movement proceeds phase-edge by phase-edge, i.e. successive-cyclically. With phases, syntactic computation gains in cyclic character. The alleged computational cost of carrying the entire derivation up to the end is reduced by transferring portions of the derivation step by step to the interfaces.

With this much background on phases, we can now highlight the similarities between a phase-based system and the *Barriers*-framework developed in Chomsky 1986.

## 3. Phases are conspicuously familiar

Let us stress that in this section we are solely concerned with establishing a parallelism between barriers and phases; critical evaluation will come in section 4.

The first parallelism we would like to discuss is that in both a phase-based system and in *Barriers*, an element can be both inside and outside a given domain (defined in terms of barrier or phase). Barriers and phases are notions that inherently trap elements inside them; they impose a very strict locality on syntactic computation. But in both systems there exists a possibility of circumventing this locality by adjoining to a barrier-projection — or moving to an additional specifier slot created by the phase-head (the generalized EPP-feature). In both cases, this additional adjunction/specifier position extends the syntactic life of a moving element. In *Barriers* (Chomsky 1986: 6-7), this was justified by redefining adjunction in the light of May’s (1985) discussion on scope and *wh*/quantifier-interactions, and also based on Koopman and Sportiche’s (1982) arguments from quantifier raising.

Another, related parallelism between barriers and phases touches on the notion of successive-cyclic movement. If there is no phase (boundary) intervening between extraction site and landing site, there is no need for an intermediate touch-down. Movement can take place in one fell swoop. The same holds for the *Barriers*-framework, where clause-internal *wh*-movement of an object, for example, had to adjoin to VP (a barrier) prior to moving to [Spec,CP], while a VP-adjoined adverbial or the subject (from [Spec,IP]) were free to move in one go.

The derivation for *Who did John kiss?* in the two frameworks is given below, indicating the parallelism between the barrier-defined framework (1a) (see Chomsky 1986: 29) and the phase-based system (1b). (2) gives the respective derivations for *How did John kiss Mary?* (cf. Chomsky 1986: 19). (For simplicity, we indicate all lower copies/traces as *t* and indicate the VP-internal subject in [Spec,*v*P] in representations of *Barriers* as well.)

- (1) a. [CP who<sub>i</sub> did-C [IP John<sub>k</sub> I [<sub>v</sub>P t<sub>i</sub> [<sub>v</sub>P t<sub>k</sub> [<sub>v</sub>P kiss t<sub>i</sub> ] ] ] ] ]  
 b. [CP who<sub>i</sub> did-C [TP John<sub>k</sub> T [<sub>v</sub>P t<sub>i</sub> [<sub>v</sub>P t<sub>k</sub> v [<sub>v</sub>P kiss t<sub>i</sub> ] ] ] ] ]
- (2) a. [CP how<sub>i</sub> did-C [IP John<sub>k</sub> I [<sub>v</sub>P [<sub>v</sub>P t<sub>k</sub> [<sub>v</sub>P kiss Mary ] ] t<sub>i</sub> ] ] ]  
 b. [CP how<sub>i</sub> did-C [TP John<sub>k</sub> T [<sub>v</sub>P [<sub>v</sub>P t<sub>k</sub> v [<sub>v</sub>P kiss Mary ] ] t<sub>i</sub> ] ] ]

A third parallelism concerns the choice of barriers or phase heads. In both approaches, the relevant natural barriers/phase heads are C and *v* (topmost V in *Barriers*). In *Barriers*, IP is defined as a “defective” projection (Chomsky 1986: 15): it is not an inherent barrier and can only become one by inheritance. The same is true of the phase-based approach: T/I is not a phase-inducing head and in this sense defective. In other words, in both approaches, IP/TP is special.

Yet another parallelism comes from the fact that although in both *Barriers* and recent phase-work, Chomsky restricts his attention to clausal properties, Chomsky (1986: 80) opens the door for other barriers, such as AP. Incidentally, while painting a “simple” picture in which *v* and C are the only (strong) phase-inducing heads, Chomsky (2001, 2004b) alludes to

the possibility that other heads may be phasal as well, such as D or P.<sup>1</sup>

Regarding locality, Chomsky (1986) assumed two types: *barriers* (boiling down to subjacency: in the ideal case, movement does not cross any bounding node, or barrier) and *minimality* (a closer governor takes preference over a potential governor further away). The latter condition was then relativized by Rizzi (1990), and relativized minimality has enjoyed tremendous acceptance all the way to the current minimalist approach(es). In fact, up to Chomsky 2000, this was the only valid or relevant condition on locality, usually taken to be some form of closest movement (Shortest Move of Chomsky 1993, Minimal Link Condition and Attract Closest of Chomsky 1995). However, the PIC imposed on phases now offers the possibility for a distinct, absolute kind of locality, better equipped to deal with CED phenomena (see Chomsky 2004a).<sup>2</sup>

Finally, it is worth mentioning that the notion of phase reinstates the notion “Complete Functional Complex” (Chomsky 1986: 15), the part of the derivation in which “all functional roles [are] satisfied.” For example, for Chomsky 2000, *v* counts as a phase by virtue of being the domain where all theta-roles are assigned.<sup>3</sup>

Let us also mention that the major condition on phases, the PIC, has GB antecedents. As Abels (2003) correctly points out, the following two definitions show that the current version of the PIC is essentially a modern restatement of van Riemsdijk’s (1978) Head Constraint.

(3) *Phase Impenetrability Condition* (Chomsky 2000: 108)

In phase  $\alpha$  with head H, the domain of H [= complement of H] is not accessible to operations outside  $\alpha$  [= HP], but only H and its edge [= H plus any/all of its specifiers].

(4) *Head Constraint* (van Riemsdijk 1978: 169)

No rule may involve  $X_i$  ( $X_j$ ) and Y in the structure ...  $X_i$  ... [ $_{\alpha}$  ... Y ... ] ...  $X_j$  ... if Y is c-commanded by the head of  $\alpha$ ;  $\alpha$  ranges over V<sup>'''</sup>, N<sup>'''</sup>, A<sup>'''</sup>, P<sup>'''</sup>.

The above parallelism establishes a close connection between phases and barriers. Such a connection indicates that phases are not a new tool in linguistic theory. This is not to deny the possibility that phases can bring novel understanding or be applied in a new and distinctive way (see for example Fox and Pesetsky 2003, who use phases to develop a cyclic procedure for linearization), but it is important to bear in mind the similarity between phases and barriers because it will allow us to better critically examine the concept of phase from a

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<sup>1</sup> Recent work has explored this possibility systematically; see Abels 2003, Lee-Schoenfeld 2004, Svenonius 2004.

<sup>2</sup> See Ochi 1999 for an argument for a dual notion of locality.

<sup>3</sup> Recent work has explored the possibility of a phase being the domain in which all relevant features have been checked (Felser 2003, Svenonius 2004).

minimalist perspective. After all, minimalism is in part an attempt to refine the tools used in GB (see Hornstein et al., to appear). But, as this section suggests, phases do not refine barriers, they simply restate them. For instance, Lightfoot and Weinberg (1988) criticize Chomsky's 1986 mechanism of adjunction to void or escape barrierhood as a stipulation (see also van de Koot 1989). This point certainly carries over to the use of EPP-features in a phase-based theory. Certainly in a minimalist setting, the existence of indirect-feature-driven movement clashes with the general tendency to reduce look-ahead and enforce Last Resort on syntactic processes locally.

This is not the only problematic aspect of phase-based derivations in a minimalist setting. In the next section we list and organize numerous arguments that have been made in the recent literature against phases.

#### **4. Phases: Some complications**

Phases are clearly not the null hypothesis. In particular adopting phases begs two kinds of questions:

- (i) What exactly is the identity of phases (e.g., why CP, but not TP)?
- (ii) What exactly are the properties of phases (why is the edge accessible, where does the EPP come from, what is being spelled out, etc.)?

We tackle both questions in this order.

##### ***4.1. Identity of phases***

Legate (2002) observes that some of the tests used by Chomsky to justify his characterization of C and *v*, to the exclusion of V and I (T), as phases fail to make the relevant cuts. In particular, she shows that raising and passive verbs pass three tests for phasehood the same way transitive verbs do: (i) they show instances of reconstruction of *wh*-phrases at their edge, (ii) they provide a target for QR, and (iii) they license parasitic gaps at their edge. (In addition, Legate shows that passive and raising verbs are as PF-isolable as full-fledged transitive verbs.)

These tests suggest, contra Chomsky, that raising and passive verbs are phases too. To deal with Legate's findings, while maintaining that transitive *v* is special, Chomsky (2001) makes a distinction between weak phases (raising/passive verbs) and strong phases (his original phases, C and *v*). As far as we can tell, this distinction plays no role in the theory, except that it restricts phase properties to strong phases. Weak phases act as if they weren't phases, in particular, they don't count as domains for the application of Spell-Out or the PIC.

Bošković (2002) also notes that PF-isolability is problematic as a criterion for phases. As the following right-node raising examples show, TP appears to be PF-isolable, hence, by that test, counts as a phase.

(5) John believes that and Peter claims that – Mary will get a job.

(6) I know when, but I don't know where – Amanda met Steve.

Matushansky (2004) casts further doubt on Chomsky's tests for phasehood by looking at the behavior of DPs. She shows that by PF-diagnostics DPs count as phases, but by LF- (and purely syntactic) diagnostics, they don't.

The upshot of the three papers mentioned here is that Chomsky's characterization of C and *v* as phases does not receive independent support from interface diagnostics, and boils down to a stipulation.

#### 4.2. *Properties of phases*

In addition to problems of identification, phases also face problems when it comes to their alleged properties.

First, as Abels (2003) and Epstein (2004) have independently noted (see also Grohmann 2003), (strong) phases shouldn't be isolable at the interfaces if the mechanism of Spell-Out/Transfer assumed by Chomsky (2001, 2004b) is correct. According to Chomsky, once a phase is completed, its complement domain is transferred to the interface and frozen syntactically via the PIC. If so, the edge (= the head with all specifiers and adjuncts) and the complement of a phase are spelled out at different times! In other words, complements of phases should be isolable units at the sound and meaning sides.

Epstein 2004 also notes that the specification of a phase as having “*full* argument structure” (the term used by Epstein as introduced in Chomsky 2004b) cannot mean that all relevant  $\theta$ -roles are in fact discharged. This would have the unintended result that raising TPs, passive, and unaccusative *v*Ps, for example, are phases, since all  $\theta$ -roles associated with the head *are* discharged. “So, full argument structure must be a *translexical* notion” (Epstein 2004: 12), clearly an undesirable conclusion.<sup>4</sup>

Apart from the problem of isolability, Epstein and Seely (2002) make the following

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<sup>4</sup> Epstein introduces this notion to express that one can't just look at the verb in the sentence to know whether it is a *v*-phase or not — one has to look at the entire verbal paradigm (hence, *trans*-lexical): for example, “in executing the derivation of passive, I look up the lexical entry of the active form, notice that the passive form has morphologically reduced theta assigning properties (contra Baker, Johnson, and Roberts 1989) as compared to active, then return to passive, categorize it as *not* full argument structure, and then assign (somehow) *no separate array* for this not-yet-constructed construction” (p. 12, slightly modified — CB & KKG).

argument against cyclic/phasal Spell-Out. ‘Cyclic Spell-Out’ was originally proposed by Chomsky (2000) as a way to eliminate the feature-deletion/erasure distinction in Chomsky (1995) and the problems that the distinction gave rise to. Chomsky (2000) claims that uninterpretable features are in fact unvalued features, which get valued during the course of the derivation. But, if that is so, once valued, how does Spell-Out know that *previously* unvalued features must be transferred to PF and eliminated from  $C_{HL}$ ? And how does LF know which instance of a feature is to be interpreted (“interpretable”) and which one isn’t? It seems like from the point of view of the interfaces, *looking-back* is needed, which we take to be an undesirable computational aspect of  $C_{HL}$ .<sup>5</sup>

In the context of the claim that phases sharply restrict search and memory, Bouchard (2002: 343) also notes that the computational system must be able to retrieve “previously spelled-out material” to provide a complete, coherent surface string — so it can’t just forget about spelled-out elements. Indeed, as Norbert Hornstein has pointed out to us (personal communication), interfaces appear to need full representations for specific processes. For example, LF needs to see multiple spelled out chunks for pronominal binding.<sup>6</sup> And PF quite possibly needs full clauses to determine intonational patterns, such as falling intonation ending up with a declarative (statement) or rising intonation yielding an interrogative (echo question) even for a simple expression like *John likes Mary. / ?*.

The definition and mechanics of phases also give rise to other problems. For instance, Chomsky claims that since the head of a phase must be accessible for selection and head-movement, its specifier must be as well, so edge-accessibility follows. But, as Bouchard (2002: 342-343) correctly notes,

“If the specifier is accessible because the head must be, it is presumably because the specifier is a sister of a projection of head (H’). But by the same logic, the complement of H should be accessible. Furthermore, if a head is accessible for selection reasons, we could even expect that the complement would be more accessible than a specifier since a complement holds a tighter selection relation with the head than the specifier.”

In addition, as Hiraiwa (2003) has pointed out, phase-based locality evaluation (evaluation of locality at the next strong phase) is inconsistent.<sup>7</sup> The logic of Chomsky’s argument is clear enough. Chomsky proposed a phase-based locality on the basis of sentences

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<sup>5</sup> See Legate 2003 for a similar argument against phase-based computational memory.

<sup>6</sup> Roussou (2004) critically addresses the role of phases applied to binding dependencies (quite differently from Lee-Schoenfeld 2004, who explicitly assumes D and P to be strong phase-heads).

<sup>7</sup> As Legate (2003) points out, phase-based locality evaluation signifies a return to GB, where operations operate freely, simultaneously, and are filtered out.

like (7):<sup>8</sup>

(7) What did John [  $t_{what}$  [  $t_{John}$  buy  $t_{what}$  ] ] ?

At issue is the intermediate trace of *what*: why doesn't it block the relation between *John* and T?

If locality were checked at each stage of the derivation (call this cyclic locality), blocking should take place. However, Chomsky (2001) suggested a different approach. According to him, movement can violate minimality, as long as the violation is hidden or repaired at the phase-level at which locality is checked. In particular, Chomsky proposed that locality is checked at the C-phase. At that stage, *what* in (2) has raised to [Spec,CP]. Since Chomsky assumes that traces are invisible for purposes of attraction/matching, they don't block. So, at the C-level, there is nothing relevant between T and *John* — locality is therefore satisfied.

Hiraiwa notes an inconsistency here. If we say that traces are irrelevant for locality, how can we still evaluate locality after movement has happened? Since Chomsky assumes that locality holds of chains, where the tail of a chain is a trace, how can a chain be evaluated for locality if one of its members is an invisible object?

Another locality problem for phases, pointed out in Boeckx 2003 (see also Brody 2002 for a version of this argument), arises in an approach that allows blind intermediate links (spurious EPP-features). One could in principle allow for movement of  $\beta$  out of  $\alpha$  (via the insertion of an EPP-feature), followed by movement of  $\alpha$  to a position  $\gamma$  out of which subextraction is impossible. Nothing seems to prevent further movement of  $\beta$ , since  $\beta$  has moved out of  $\alpha$  prior to  $\alpha$ 's fateful landing on a freezing node.

An example of this scenario and a hypothetical derivation is given in (8a-c):

- (8) Target: \*Who did [a picture of <who>] cause Bill to cry?
- a. Step 1: [<sub>YP</sub> **who** Y [<sub>vP</sub> [a picture of <**who**>] v [<sub>vP</sub> cause Bill to cry ] ] ]
  - b. Step 2: [<sub>IP</sub> [**a picture of** <**who**>] I [<sub>YP</sub> who Y [<sub>vP</sub> <[**a picture of** <**who**>] v ... ] ] ]
  - c. Step 3: [<sub>CP</sub> **who** did-C [<sub>IP</sub> [a picture of <who>] I [<sub>YP</sub> <**who**> Y [<sub>vP</sub> ... ] ] ] ]

In Step 1 (8a) *who* moves out of [a picture of *who*] to [Spec,YP] above vP when the *picture*-NP is in [Spec,vP] (from where subextraction is certainly allowed). Step 2 (8b) proceeds with movement of [a picture of <*who*>] to [Spec,IP] — a “freezing node.” In the final step (8c),

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<sup>8</sup> See Anagnostopoulou 2003 for arguments in favor of phase-based locality based on raising constructions across an experiencer (*John seems to Mary [t to be nice]*). See Boeckx 2002 for arguments that standard locality conditions such as minimality can apply to capture the variation in the domain of raising across experiencers, once the features of the experiencer and the subject are refined.

*who* moves from [Spec,YP] to [Spec,CP], resulting in the ungrammatical Target-structure *Who did a picture of cause Bill to cry?*. Nothing seems to ban the undesirable derivation sketched in (8a-c).

To sum up this section, the problems for phases, taken as a whole, argue against phase-based computation. To the best of our knowledge, only two arguments remain in favor of phases, to which we turn in the next section. As we will see, neither argument stands up to closer scrutiny.

## 5. A requiem for phases?

Addressing raising-structures involving expletives (9a), Chomsky (1995) originally argued that a derivation like (9b), where the associate illicitly moves to the embedded, non-finite [Spec,TP] to check T's EPP-feature, can be ruled out by assuming that Merge is more economical than Move. Consequently, it is cheaper (and hence the only option) for the grammar to insert *there* and move it than move *a man* prior to *there*-insertion.

- (9) a. There seems [<sub>TP</sub> *t* to be [ a man in the garden ] ].  
b. \*There seems [<sub>TP</sub> a man to be [ *t* in the garden ] ].

Note, however, that this line of argumentation crucially relies on the existence of a non-finite [Spec,TP], and the possibility of non-finite T bearing an EPP-feature.

Castillo et al. (1999) investigated the so-called “Merge over Move” preference and came to a different conclusion (further supported by arguments against this preference raised in Hornstein 2001 and Bošković 2002; see also Shima 2000 for arguments in favor of the opposite preference). By denying deficient, non-finite T to bear an EPP-feature (i.e. make available a specifier position), Merge-over-Move does not have to be evoked. More generally, the question boils down to an EPP-issue: according to the “weak option,” non-finite T does not have an EPP (feature or property), hence its specifier can never be filled.<sup>9</sup> Rather, the derivation underlying the licit (9a) is that in (10), without any relevant movement steps:

- (10) There seems [<sub>TP</sub> to be [ a man in the garden ] ].

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<sup>9</sup> The strong (and possibly more interesting) option would be to say, as Castillo et al. did, that the EPP simply doesn't exist. Apart from solving Merge-over-Move related questions, this path eliminates another dubious and ill-understood stipulation on the grammar. For related proposals, see e.g. Epstein et al. 1998, Boeckx 2000, Epstein and Seely 2002, or Bošković 2002 who provides the “weak option” presented in the text.

Abels (2003) provides another empirical argument in favor of phases. Specifically, his argument is against the null hypothesis that each maximal projection is targeted by successive-cyclic movement, and in favor of what he calls ‘punctuated chains,’ which are formed by targeting specific landing sites (such as phase-edges). The argument rests on the contrast between (11b) and (11d) below; specifically, on the absence of reconstruction effects in the specifier of non-finite T.

Based on the ability to license an anaphor in an intermediate landing site (cf. (11a,b), Abels argues that *wh*-movement doesn’t target the non-finite [Spec,TP] in (11d); if it did, the anaphor would be expected to be licensed, as it is in (11b). Abels concludes that the lack of reconstruction (understood as the lack of an intermediate landing site) follows under a phase-based or punctuated chain theory (non-finite T is not a phase), but doesn’t under a theory that assumes that each maximal projection is targeted under Form Chain.

- (11) a. \*John said that Sue likes pictures of himself  
b. Which pictures of himself did John say that Sue likes?  
c. \*Mary seems to John to like pictures of himself  
d. \*Which pictures of himself does Mary seem to John to like?  
e. Which pictures of himself does it seem to John that Mary likes?

Norbert Hornstein (personal communication), casts doubt on this paradigm on the basis of cases like (12):<sup>10</sup>

- (12) \*Which pictures of himself does Mary seem to Susan to have told John that she likes?

(12) should pattern on a par with (11e), not (11d). If Hornstein’s observation holds, no argument can be based on the basis of (11). Setting this empirical issue aside, we want to note that even if the facts are as Abels claims they are, the argument he provides based on them is incorrect, for it relies on the following logic.

- (13) a. if movement → reconstruction possible  
b. if no reconstruction → no movement

There is ample evidence that (13b) can’t be maintained (see also Boeckx and Hornstein

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<sup>10</sup> For some speakers, the argument based on (12) is moot, since for them reconstruction does not obtain even in the absence of an experiencer. That is, for them, (i) is unacceptable.

- (i) \*Which pictures of himself does Mary seem to have told John that she likes?

This is not true of all speakers of English. Six people out of the ten we interviewed find (12) worse than (i).

2004). Consider, for example, the absence of reconstruction effects with A-movement recently discussed by Lasnik (1999). A relevant case is presented in (14).

- (14) No one is certain to solve the problem  
(≠ It is certain that no one will solve the problem.)

As Boeckx (2000, 2001) has argued (contra Manzini and Roussou 2000), anti-reconstruction effects like (14) cannot be analyzed in terms of non-movement, since some instances of A-movement (especially movement involving indefinites) reconstruct. If this conclusion is correct, (13b) cannot be right.

Another argument against (13b) comes from the fact that even weak islands, those that permit a significant degree of movement, do not accommodate reconstruction, as witnessed in (15).

- (15) a. Which of his<sub>1/\*2</sub> pictures did Bill<sub>1</sub> ask me why nobody/everybody<sub>2</sub> hated *t*?  
b. Which of his<sub>1/\*2</sub> pictures doesn't Bill<sub>1</sub> think that everyone<sub>2</sub> liked *t*?

In a similar vein, Bobaljik and Wurmbrand (to appear) provide compelling evidence that the lack of reconstruction effects in restructuring contexts in German (and other languages) must be analyzed as an anti-reconstruction effect in the presence of movement.

- (16) ... weil er alle Fenster vergessen hat [<alle Fenster> zu schliessen].  
*because he all windows forgotten has to close*  
'... because he forgot to close all the windows.'  
(alle Fenster >> vergessen; \*vergessen >> alle Fenster)

To conclude, it appears that whereas reconstruction effects signal movement (copying), anti-reconstruction effects do not necessarily signal lack of movement. Therefore, the data in (11) are silent on the issue of successive-cyclic movement, and on the need for phases as distinct landing sites for that type of movement.

## 6. Conclusion

Just like Sportiche (1990/1998: 6) said that his study “grew out of a certain dissatisfaction with the particular form that the *Barriers*-theory took in Chomsky 1986, which was itself an attempt to synthesize a variety of attempts to derive the constraints on movement,” our paper can also be seen as the result of a certain dissatisfaction with the *particular form* of current locality theory, viz. its phase-based implementation.

As we stated at the outset, we agree with Chomsky's general (conceptual) argument for phases, viz. computational load reduction, but we think that phases as currently conceived of are not optimal tools to achieve this goal. We have shown in this paper that phases are virtually identical to barriers (section 3). Not only don't they offer any more insight than barriers did, phases face problems of their own, which we have cataloged in section 4. To us, this suggests that exploring alternative minimalist conceptions of locality and syntactic derivation are worth looking for.

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