

1 Introduction

1.1 *The explanandum: Small clauses versus to-infinitival clauses*

The extensive literature on secondary predication constructions has identified a number of contexts in which bare small clauses behave differently from *to*-infinitival complements when it comes to scope. Thus, Hornstein (1995) has pointed out that in (1b), with *to be* present in the complement of *consider*, a distributive reading is readily available, with *every congressman* scoping over *someone*: for every congressman, there is someone (and not necessarily the same someone in each case) who finds that congressman a fool. By contrast, in (1a), where the verb takes a bare small-clause complement, Hornstein finds the inverse-scope reading impossible to get: (1a) can only mean that there is some person who considers every congressman a fool.¹

- (1) a. someone considers *every congressman* a fool ($\exists > \forall$; $*\forall > \exists$)
 b. someone considers *every congressman to be* a fool (ambiguous)

While there is speaker variation regarding the Hornstein judgement on (1b) (see fn. 1), the fact that bare small clauses behave differently from *to*-infinitival complements in the domain of scope is consistently supported by other observations pointing in the same direction, and not giving rise to varying judgements (as far as I am aware). Thus, in (2) (from Stowell 1991), the numeral quantifier can scope below *prove* only in the presence of *to be*, as in (2b); when *prove* selects a bare small-clause complement, as in (2a), the verb is necessarily in the scope of *two assumptions*.

- (2) a. he proved *two assumptions* false ($2 > \text{prove}$; $*\text{prove} > 2$)
 b. he proved *two assumptions to be* false (ambiguous)

And in (3) (due to Williams 1983), the existential subject can reconstruct below *seem* only in the presence of *to be*, as in (3b).

- (3) a. *someone* seems sick ($\exists > \text{seem}$; $*\text{seem} > \exists$)
 b. *someone* seems **to be** sick (ambiguous)

There is ample reason for believing, therefore, that the scopal properties of subjects of small-clause complements (in non-resultative constructions²) are different from those of subjects of *to*-infinitival complements. One of the aims of this paper is to provide an explanation for the scope differences between the a- and b-sentences in the examples in (1)–(3).

1 Though several speakers have confirmed the Hornstein judgement (which I will continue to base myself on), others point out that for them the scope contrast is not robust or even non-existent, esp. in contexts desiring $\forall > \exists$ — thus, note the following internet-token of (1a), whose context suggests a wide-scope reading for the \forall QP: *Someone considers every power in the powerset useful, even those considered useless by the majority of Regeneration scrappers* (thanks to David Pesetsky, p.c., for providing this example).

2 Resultative constructions arguably involve small-clause complementation in languages such as English (see Hoekstra 1988 for a variety of arguments to this effect), yet they typically do not give rise to scope effects of the type discussed in the text. This suggests that aspectual considerations play a role in this connection. The initial discussion will confine itself to non-resultative constructions, for which Stowell's (1991) 'small clause restructuring' (a central ingredient of the account of the data in (1)–(3)) holds. As I will argue in section 2.3, resultative constructions are not subject to 'small clause restructuring' — something that is tied to the aspectual properties of these constructions. What may also play a role is that resultative constructions as a class do not alternate with *to*-infinitival complementation — i.e., minimal pairs of the type in (1a,b), (2a,b) and (3a,b) simply cannot be constructed in the case of resultatives (*John hammered the nail (*to be) flat*).

A second objective of this paper is to make sure that whatever accounts for the scope differences in (1)–(3) continues to make it possible for the subjects of both small-clausal and *to*-infinitival complements to bind an anaphor or license a negative polarity item inside a matrix-clause temporal adverbial. The data in (4) and (5), due Lasnik & Saito (1991), illustrate that no matter whether *to be* is present or not, *the defendants* in (4) can bind *each other*, and *none of the defendants* in (5) can license the *any*-NPI, contained in a *during*-adverbial that must be construed as a matrix-clause modifier.

- (4) a. the DA proved *the defendants* guilty during *each other's* trials
 b. the DA proved *the defendants to be* guilty during *each other's* trials
 (5) a. the DA proved *none of the defendants* guilty during *any* of the trials
 b. the DA proved *none of the defendants to be* guilty during *any* of the trials

These sentences raise the question of how sensitivity to the small *vs* infinitival clause distinction should be translated such that the scope facts in (1)–(3) can be reconciled with one another and with the grammaticality of both versions of (4) and (5).

1.2 *The explanation: Major ingredients of the analysis*

In this paper, I present an analysis of this puzzle couched within a theory of locality and scope with five major ingredients:

- (a) scope positions are uniquely on the edges of phases
- (b) phases are uniquely defined in the base as predications
- (c) phases are extended upwards as a result of syntactic movement of the phase head
- (d) the head of the small-clause complement of a verb must incorporate into V by LF
- (e) Object Shift is a last-resort operation licensed only if it has an effect on grammaticality

Of these five ingredients, (a)–(c) are integral parts of the theory of locality developed in Den Dikken (2006, 2007a,b), on the basis of a variety of case studies from a broad range of empirical domains (including not just predication but also A-movement, Predicate Inversion, and A'-movement). I will address some of the benefits of this theory outside the realm of the data in (1)–(5) towards the end of the paper. For now, let me just reiterate that ingredients (a)–(c) are broadly supported, general ingredients of a theory of locality.

Ingredient (d) is my rendition of Stowell's (1991) 'small clause restructuring'. This is the only piece of the theory that is specific to the account of the data in (1)–(3), in that it systematically differentiates between the syntactic derivations of the a-examples and the b-sentences in these pairs. 'Small clause restructuring' works in tandem with the general ingredients of the theory of locality in (a)–(c) to deliver the scope data in (1)–(3). But despite its specific role in my discussion of these scope facts, ingredient (d) is not an *ad hoc* assumption. In section 2.3, I will place (d) in its proper context, showing that it is part and parcel of a general outlook on the licensing of small-clause complementation structures.

Finally, ingredient (e) represents a perspective on Object Shift and other empirical phenomena that treats them as last-resort operations. Fox's (1999) outlook on Quantifier Raising is very similar to (though not identical with) the approach to Object Shift assumed here. There are likely to be a family of syntactic operations whose distribution can be captured in terms of effect on grammaticality or output. In what follows, I will show that conceiving of Object Shift in these general terms allows us a straightforward perspective on why the a-examples in (4) and (5) behave differently from a-examples in (1)–(3).

The structure of the paper is as follows. In section 2, I will provide an analysis of the facts in (1)–(3), exploiting 'Phase Extension' (c) and 'small clause restructuring' (d). Section 3 subsequently addresses the data in (4) and (5) against the background of the story for (1)–(3), and presents the last-resort approach to Object Shift (e). Section 4 finally places the locality theory couched in (a)–(c) in a broader perspective.

2 Small-clause subjects and scope

2.1 *The account in a nutshell, and the central questions posed by it*

The facts in (1a), (2a) and (3a) pose an interesting challenge: the small-clause subject *must* scope over the verb selecting the small clause but *cannot* scope over that verb’s subject. We will be able to make this follow if we assume, first of all, that scope positions are phase-edge positions (as stated in (a), above), and, secondly, that the only available phase-edge position for the small-clause subject in the a-examples is *above* the verb but *below* the lowest position in the chain of the matrix subject. The position adjoined to the root–VP in the structure in (6) has precisely the desired properties.

(6) ... [_{VP} someone/he_k [_{VP} QP_i [_{VP} consider/prove [_{RP} QP_i [RELATOR [a fool/false]]]]]]]]

(6) will basically be my answer to the question of why, in (1–3a), the small-clause subject must scope over the verb but cannot scope over the matrix subject. But at this juncture, at least three central questions arise:

- (i) why is SC(=RP), a predication, not a phase in (6)?
- (ii) how can the root–VP, which does not represent a predication, be phasal in (6)?
- (iii) what prevents the QP from proceeding upwards beyond the VP–adjoined position in (6)?

I will turn to questions (i) and (ii), which will be seen to be inextricably linked, in section 2.2. But first, let me briefly address question (iii), which takes for granted that the VP–adjoined position in (6) is indeed a scope position for QP but asks why QP cannot move further up the tree to higher potential phase-edge positions and assign scope from there, thereby gaining scope over the matrix subject.

The nature of the data (in particular, the observation that (1a) lacks a distributive reading) is such that onward movement of this sort must be blocked. The theory will ensure this if scope-assigning movement is a once-only operation, not a successive-cyclic process. This assumption is independently necessary in view of the well-known fact that QPs embedded in a finite complement clause (which inevitably is or dominates a phase boundary) cannot gain scope over a constituent in the matrix clause. If QR could proceed successive-cyclically, from one phase-edge position to another phase-edge position, there should be no restriction on wide-scope readings for quantifiers embedded in finite complement clauses: phase-to-phase movement is plainly possible in the case of *wh*-movement, focus movement, and topicalisation. These processes are standardly treated in the literature as being driven by the need to check a formal feature against a functional head.³ QR, by contrast, is not in any obvious sense feature-driven: rather, it is driven by the need to deliver a well-formed LF representation that can be properly interpreted by the conceptual-intensional system. While feature-driven movement is known to be able to proceed successive-cyclically, thereby covering potentially infinite distances up the tree, interpretation-based processes such as QR by their very nature come straight to the point, so to speak. Every instance of QR feeds the interpretation. It would be an anomaly to perform a succession of QR operations in any one sentence, because each application of QR would result in a discrete interpretation, and the sum total of these discrete interpretations would be incoherent from the point of view of the conceptual-intensional system: every LF representation supports precisely one interpretation; ambiguous sentences have multiple LF representations, one for each of the readings that a sentence supports. A quantifier that is moving for reasons of scope therefore always gets to its derived scope position in one fell swoop. Since fell-swoop movement out of an embedded finite clause is standardly taken to be impossible (*pace* Rackowski & Richards 2005), and successive-cyclic QR is blocked as well, QPs embedded in a finite complement clause cannot scope over QPs in the matrix clause. And since successive-cyclic QR is an anomaly, (6) ensures that the QP in the VP–adjoined position cannot raise further to gain scope over the subject.

³ The precise nature of the formal feature(s) checked by *wh*-movement, focus movement, and topicalisation is immaterial in the present context. All that matters is that these processes are standardly assumed to be instances of feature-driven movement.

2.2 ‘Small clause restructuring’ as phase-extending head movement

But how does the root–VP of the matrix verb become a scope position to begin with? And why isn’t the base position of the QP in (6) a scope position? Nothing else said, it would certainly be the case that the specifier position of the complement–SC in (6) (i.e., SpecRP) is a scope position: after all, hypothesis (b) in section 1.2 states explicitly that phases are defined in the base as predications, and RP (the small clause) is a quintessential predication. The root–VP, by contrast, is definitely not a predication: VP is a predicate, so it is only half of what it takes to be a predication. So nothing else said, it would appear that (6) is anomalous. And indeed, as it stands (6) *is* an anomaly: more needs to be said (and done) to make it converge.

What we are looking for is a way to *extend* the phasehood of the small clause (RP) up to the root–VP. In Chomsky’s (2001 etc.) work on phases, phasehood is a stable, immutable property. But in my previous work (Den Dikken 2006, 2007a,b), I have argued at some length that phasehood can shift in the course of the syntactic derivation. In particular, as a result of syntactic movement of the *head* of a phase, the demarcation of this head’s phase shifts up to the projection of the landing-site of head movement via a process that I have dubbed *Phase Extension*.⁴ I will briefly present the original impetus to Phase Extension in section 4 of this paper. But in the context at hand, it should be immediately clear what we would like Phase Extension to do for us: we would like the RP’s underlying phasehood (thanks to RP constituting a predication) to be extended, via phase-extending head movement, up to the root–VP, *and no further*. In the remainder of this section, I will show how this comes about.

Stowell (1991) has argued that at LF, small-clause complements undergo what he calls ‘small clause restructuring’, a process that reanalyses them with their selecting verb. I will formulate ‘small clause restructuring’ as an LF–movement process that targets the functional head of the small clause (the RELATOR, in the terminology of Den Dikken 2006) and obligatorily raises it up to the verb selecting the small clause. So the RELATOR in (6) raises to V at LF, yielding (6’).⁵ The result of this head-movement operation is that the phase defined by the small-clausal predication (RP) gets *extended* at LF up to the projection of the landing-site of movement of the head of the small clause — i.e., up to VP, *and no further*: after all, at LF there is no onward movement of the complex resulting from incorporation of the small-clause head into the verbal root.⁶ In the process of phase-extending head movement of the RELATOR up to V, the small clause loses its phasehood. This is graphically depicted below (6’), where ‘Φ’ represents a phase, and a ‘⊖’ printed in outline stands for a decapitated and thereby inactivated phase.

(6’) ... [_{VP} someone/~~he~~_k [_V [_{VP} QP_i [_{VP} consider/prove+RELATOR_j [_{RP} ⊖P_i [_{t_j} [a fool/false]]]]]]]]

4 Gallego’s (2006) and Gallego & Uriagereka’s (2006) notion of ‘phase-sliding’ is similar in spirit to my Phase Extension.

5 That, in English, this is LF–movement rather than overt-syntactic movement is evident from the fact that overt realisations of the RELATOR head, such as the prepositions *as* and *for* in (ia,b) (see Den Dikken 2006) and perhaps also the particle *out* in (ic) (see Kayne 1985, Den Dikken 1995), do not get physically displaced by the process: in overt syntax, they remain in their base positions, in between the subject and the predicate of the small clause. Note that (ia–c) all share with (1a) the fact that they do not support a wide-scope, distributive reading for the universal quantifier in small-clause subject position. From the perspective of the text analysis of (1a), this means that ‘small clause restructuring’ is at work in (i); since ‘small clause restructuring’ (i.e., the incorporation of the RELATOR head into the verb root) does not bring about the displacement of the spell-outs of the RELATOR in (ia–c), we conclude that ‘small clause restructuring’ is indeed (as Stowell 1991 already suggested) a covert-syntactic affair.

- (i) a. someone regards every congressman as a fool
- b. someone takes every congressman for a fool
- c. someone makes every congressman out a fool

6 The RELATOR head cannot incorporate into the v+V complex, which is too far away. It must therefore incorporate into the base copy of the root verb.

Hornstein (1995:248 n. 75), in his discussion of (1), already suggested that the difference between (1a) and (1b) might have something to do with ‘small clause restructuring’. For Hornstein (on whose analysis the accusative-marked ECM subject in both (1a) and (1b) raises to SpecAgrOP in the matrix clause), such LF incorporation ‘somehow prevents’ reconstruction of the subject, *someone*, into its base position, SpecVP — but he adds that he has ‘no idea why this should be so’. On the present analysis, ‘small clause restructuring’ captures the scopal non-ambiguity of (1a) straightforwardly: with the RELATOR incorporating into the verbal root at LF and RP’s phasehood being extended up to VP, the first and only scope position for the QP in the small-clause subject position will be a position adjoined to the root–VP in (6’). From that position, the universal quantifier cannot gain scope over the existential quantifier that serves as the matrix subject: in its VP–adjoined position, *every congressman* c-commands no member of the chain of the matrix subject.

The ‘small clause restructuring’ approach provides simple solutions as well for the fact that in (2a) the numerically quantified subject of the small clause cannot gain scope over *prove*, and that in (3a) the existential quantifier cannot be interpreted in the scope of *seem*. For (2a), all we need to do is assume, as in (a) (in line with standard assumptions), that scope sites must be on the edges of LF phases. With the phasal status of the small clause (RP) annulled as a result of LF ‘small clause restructuring’ (i.e., movement of the RELATOR up to the verbal root), the first and only position from which *two assumptions* can take scope is a position adjoined to the VP of *prove*. From this position, *two assumptions* asymmetrically c-commands the LF-interpreted base copy of *prove*, whence the unavailability of the *prove*>2 reading.

The conjunction of ‘small clause restructuring’ and the hypothesis that only LF phase edges are available as scope sites also provides a straightforward account of (3a). This time, in order to obtain a reading in which *seem* scopes over *someone*, we would need to reconstruct the existential quantifier below *seem*. But the lowest phasal node in the LF representation of (3a) is the root–VP of the verb *seem*. Reconstructing *someone* into this VP–adjoined position is entirely legitimate, but it does not deliver a *seem*>*someone* reading: the lowest scope reconstruction site for *someone* is still above *seem*’s LF position. So we correctly predict that *someone* cannot be in the scope of *seem*, even though *someone* does bind a trace in the complement of *seem*.⁷

2.3 On the distribution of and rationale for ‘small clause restructuring’

The scope readings that are not supported by the a–sentences in (1)–(3) are all perfectly available in the b–examples, which distinguish themselves from the a–sentences in including *to be*. The availability of wide scope for *every congressman* in (1b) and wide scope for the verb in (2b) and (3b) must, on present assumptions, be a consequence of the non-application of ‘small clause restructuring’ in the b–examples. I had stated previously that ‘small clause restructuring’ (and the Phase Extension that this brings about) is restricted to apply in contexts in which a small clause is selected by a verb (see below for discussion). Since in the b–sentences the small clause is not selected by a verb (cf. (7b)), no ‘small clause restructuring’ will obtain here. With no Phase Extension taking place in the b–examples, the small clause keeps its phasehood throughout the derivation. As a result, the small-clause subject has two available scope positions in (7b): the edge of the small clause (the SC-subject’s base-generation site, within the scope of the verb and the matrix subject’s chain) and the edge of the next phase up (above the verb and at least one member of the matrix subject’s chain). The b–examples in (1)–(3) are thus scopally ambiguous, in contrast to the a–examples, as seen in (7a).

- (7) a. ... [_{VP} ~~someone/he~~ [_{VP} QP_i [_{VP-Φ} consider/prove+RELATOR_j [_{RP} QP_i [_{t_j} [a fool/false]]]]]]]]
- ↑
scope position
- b. ... [_{VP} QP_i [_{VP-Φ} s.o./he [_{VP} consider/prove [_{TP} QP_i [_{to} [_{RP-Φ} QP_i [RELATOR [a fool/false]]]]]]]]]]

⁷ Note that this way, we get an account of (3a) that does not force us to forfeit a small-clause internal trace for *someone seems sick*. This is desirable in light of Kratzer’s (1995) argument for the presence of a low base-generation site for the subjects of stage-level predicates (e.g. *sick*) in contradistinction to individual-level predicates, whose subjects are argued to have a higher base position.

The hypothesis that ‘small clause restructuring’ only applies to small clauses in the complement of a verb also helps us understand the fact that the resultative verb-particle construction in (8a) allows wide scope for the universal quantifier, regardless of the placement of the particle. In Den Dikken (1995), I argued in detail that complex verb-particle constructions of the type in (8a) have a structure in which the particle heads the projection selected by the verb, and in turn selects the small clause of which the transitive PP is the predicate. This is depicted in (8b,c), with the former involving NP-movement of the small-clause subject into the specifier position of the particle, and the latter featuring *in-situ* licensing of the small-clause subject. Since in (8) the small clause is not itself the complement of the verb, no small-clause structuring is triggered, and as a result the universal quantifier has multiple scope positions at its disposal: its base position on the edge of the small clause (yielding narrow scope *vis-à-vis* the existential QP) and a position adjoined to the matrix vP (delivering wide scope *vis-à-vis* the existential QP).

- (8) a. someone put <down> every book <down> on the shelf (∃>∨; ∨>∃)
 b. $[_{VP} \text{ put } [_{PrTP} [\text{every book}]_i [\text{down } [_{RP} t_i [\text{RELATOR } [_{PP} \text{ on the shelf}]]]]]]$
 c. $[_{VP} \text{ put } [_{PrTP} \text{ — } [\text{down } [_{RP} [\text{every book}]] [\text{RELATOR } [_{PP} \text{ on the shelf}]]]]]]$

Not only the verb-particle construction in (8a) but also its particle-less counterpart in (9a) is scopally ambiguous, however. This time we cannot appeal to the presence of a particle intervening between the verb and the small clause to account for the non-application of ‘small clause restructuring’ — in fact, nothing else said, we would seem to predict, incorrectly, that ‘small clause restructuring’ is forced in (9b), wrongly predicting that (9a) should behave like (1a) in terms of its scopal properties.

- (9) a. someone put every book on the shelf (∃>∨; ∨>∃)
 b. $*[_{VP} \text{ put } [_{RP} [\text{every book}]] [\text{RELATOR } [_{PP} \text{ on the shelf}]]]]$
 c. $[_{VP} \text{ put } [_{AspP} \text{ Asp } [_{RP} [\text{every book}]] [\text{RELATOR } [_{PP} \text{ on the shelf}]]]]]]$

Concretely, then, the facts indicate that (9b) should be rejected as an analysis of the resultative construction in (9a). More generally, we would like to have a theoretical basis upon which to block such a structure for *all* resultative constructions, in view of the fact that it is not just prepositional resultatives like (9a) but in fact *all* resultatives that allow inverse scope readings (cf. also Bruening 2001). This is perhaps particularly clear in the examples in (10), where *different* in the subject is only felicitous (out of context) if the universal quantifier can scope over the subject: while (10a) is very difficult to get with *difficult* included (*modulo* the remarks made in fn. 1, above), (10b–d) are all fine.

- (10) a. a (#different) student considers every congressman a fool
 b. a (different) student put every book on the shelf
 c. a (different) student painted every barn red
 d. a (different) student drove every professor crazy

While all of (10a–d) arguably involve small-clause complementation structures (in languages like English; see Shim & Den Dikken 2007 for a juxtaposition of English-type languages and Korean), resultative constructions are well known to be aspectually different from sentences of the type in (10a): the state of affairs denoted by the small clause in a resultative construction *delimits* the event denoted by the verb. Thus, the interpretation of a resultative like *John painted the barn red* is that there was an event of painting, carried out by John, that resulted in and was delimited by the barn becoming red. This aspectual property common to all resultative constructions and differentiating them from other small-clause complementation constructions should be formally registered. My proposal here is to register it in the form of an AspP in the complement of the verb, between the verb and the resultative small clause, as in (9c). The head of this AspP is often empty, but it can alternatively be spelled out as a particle — that is, ‘PrtP’ in (8b,c) is an instance of AspP.

With (9c) in place, the absence of ‘small clause restructuring’ in resultative constructions, and its concomitant scope effects, now falls into place from the perspective of the hypothesis that ‘small clause restructuring’ is triggered only in contexts in which the small clause is the complement of a verb. But we still need to understand the *roots* of this generalisation. Here, I will invoke the theory of the licensing of small clauses proposed by Guéron & Hoekstra (1995) to make sense of the distribution of ‘small clause restructuring’.

The central idea of this theory is that small clauses are clauses that, due to their smallness, cannot survive by themselves and must be licensed by a temporal or aspectual head in the structure that dominates them. Guéron & Hoekstra (1995:92) identify tense and aspect, referring to the latter as dependent tense. They say that aspect ‘is a tensed form not directly bound by a T-operator’ — that is, its T node is not ‘deictically interpreted via a T-operator which directly links it to a referential domain’ but instead ‘dependent, relating the event of its verbal base to a nondeictic anchor’. Both T and Asp are suitable licensers of a small clause; the fact that Asp is itself dependent for its licensing on a higher T is immaterial for our purposes here. So in (7b) and (9c), the small clause is licensed directly, in virtue of being in the complement of a T or Asp node, and no ‘small clause restructuring’ is required.⁸ In the absence of a local T or Asp node, however, a small clause can be licensed only by having its functional head (the RELATOR) incorporated into the T-chain of the verb (cf. Guéron & Hoekstra 1995:101).⁹ This incorporation of the RELATOR into the verb is what ‘small clause restructuring’ comes down to. So ‘small clause restructuring’ can be viewed as a last-resort licensing strategy for small clauses that are not themselves the complement of a temporal or aspectual head.

This makes precisely the desired cut. In the a–examples in (1)–(3), the small clause is immediately embedded below the verb and can be licensed only by ‘small clause restructuring’, resulting in Phase Extension; the scope facts discussed in terms Phase Extension in the foregoing discussion thus fall into place. In the b–sentences in (1)–(3), by contrast, the small clauses find themselves in the complement of T (the copula being the realisation of the RELATOR; see Den Dikken 2006), and no ‘small clause restructuring’ is triggered. Similarly, in (8a), (9a) and (10b–d), the resultative small clause is the complement of the aspectual head Asp (which in (8a) is spelled out as the particle *down*¹⁰), which licenses the small clause without the need for phase-extending incorporation of the RELATOR presenting itself.

8 I assume, in line with mainstream minimalist work, that whenever an operation is not required, economy considerations make application of the operation illicit.

9 I leave open here the nontrivial question of how to deal with small clauses that are not governed by a verb — depictive small clauses (as in *John ate the meat raw/nude*) and small clauses in *with*-absolutes (as in *with John drunk, we can’t win*) are cases in point. It is conceivable that these constructions do not involve *bare* small clauses; but determining their licensing is a difficult question that goes well beyond the scope of the present investigation.

10 I should make it explicit here, to avoid potential confusion, that my assumption in this paper is *not* that verbal particles are *systematically* the spell-outs of an aspectual head in the complement of a verb. It is entirely plausible that particles serve a variety of functions in phrase structure, sometimes playing an aspectual role and on other occasions performing a role that is not readily characterised in aspectual terms. Thus, the particle *out* in (ic) of fn. 5 is an unlikely candidate for an aspectual element; in fn. 5 I tentatively suggested that *out* here in fact spells out the RELATOR head. As is well known (see Kayne 1985 and a lot of work in its wake), sentences like *they made John out a liar* alternate with two *to*-infinitival versions, varying with respect to the placement of the particle *vis-à-vis* the small-clause subject (*they made <out> John <out> to be a liar*). The particle in these *to*-infinitival sentences cannot be analysed as a lexicalisation of the RELATOR (cf. **they made John to be out a liar*). Lasnik & Park (2003) point out, by the way, that the two versions of this *to*-infinitival particle construction behave differently with respect to the (im)possibility on the part of the ECM subject to bind a variable pronoun included in a matrix-clause adverbial (see *the DA made <*out> every defendant, <out> to be guilty during his, trial*). This observation is relevant in the context of the discussion of Object Shift in the next section. How this construction behaves with respect to scope interaction with the matrix-clause subject is uncharted (and complicated) territory. For now, I must leave the status of (*out in*) these *to*-infinitival verb-particle constructions open (but see Den Dikken 1995).

3 Object Shift

3.1 *When to be makes a difference, and when it does not: An overview*

In the context of the scope facts in (1)–(3), the presence or absence of *to be* makes a world of difference. We now have an account of why this is the case: the absence of *to be* makes ‘small clause restructuring’ obligatory, and ‘small clause restructuring’, i.e., the raising of the RELATOR head of the complement small clause up to the selecting verb, extends the small-clausal phase up to the root–VP at LF, thereby confining the small-clause subject’s scope to the root–VP, as desired; in the presence of *to be*, by contrast, the small clause is licensed directly by a local T head, and no Phase Extension takes place, with scope ambiguity being the result.

The facts in (1)–(3) demonstrate that the presence or absence of *to be* in the verb’s complement can influence the availability of certain *interpretations* for sentences that are grammatical regardless of the presence of *to be*. It is also possible for the presence or absence of *to be* to directly influence *grammaticality* — Postal’s (1974) examples in (11) are cases in point.

- (11) a. the DA is hard to consider (*to be) competent
 b. the defendant is easy to prove (*to be) guilty

In these sentences, inserting *to be* leads to ungrammaticality. It seems that this has everything to do with the fact that these are cases of null operator movement. Null operators are well known to impose restrictions on the positions from which they can be extracted. Stowell (1986) sought to recast these restrictions in large measure in terms of the ECP (the licensing condition on traces), in conjunction with the specific assumption that antecedent-government succeeds only in chains headed by a non-null category — null operators, therefore, are unable to antecedent-govern their traces; so whenever head-government fails as well, an ECP violation results.¹¹ An updated version of Stowell’s account would require that the base position of a null operator not be separated from a verb by a phase boundary at LF — an LF-representational requirement on the licensing of null operators. This requirement is straightforwardly met in the versions of (11a,b) lacking *to be*, where the overt-syntactic phase boundary between the verb and the null operator’s base position is effaced at LF as a result of phase-extending movement of the RELATOR up to V. In the *to*-infinitival versions of (11a,b), by contrast, no phase-extending movement to V takes place, and as a result the matrix verb and the null operator’s base position will be separated by a phase boundary. I present these remarks as tentative suggestions; obviously a lot more work will need to be done before we can confidently claim to have understood these null operator restrictions.¹² But if it is true that reference should be made to the presence or absence of a phase boundary between the verb and the null operator’s base position, these null operator restrictions further support the Phase Extension analysis I originally proposed for the a-examples in (1)–(3).

So Phase Extension triggered by the need to license a small clause in the complement of V can weed out scope readings and can even influence grammaticality. But in the examples in (4) and (5), repeated below, the presence of *to be* is entirely innocuous: regardless of whether *to be* is included or not, the ECM subject is capable of gaining command over a constituent within an adjunct that must belong to the matrix clause.

11 Takahashi’s (2002) attempt to derive the facts from the EPP (on the assumption that a null category, here *Op*, cannot satisfy the EPP) is unlikely to be successful: since the EPP holds in small clauses as well as *to*-infinitives (cf. *they consider *(it) (to be) unlikely that S*), the different behaviour of *to*-infinitives and bare small clauses with respect to the null-operator restriction (even in EPP environments: *the DA is hard to consider (*to be) likely to be competent*) suggests that the EPP is not a key player in this context.

12 The restriction formulated in the main text may be assimilable to Rizzi’s (1986) formal licensing condition on *pro* (formulated in terms of government, now most likely to be updated in terms of phase theory). A formal assimilation of the two restrictions may in fact be required if null operators (at least the ones used in *tough*-movement constructions and infinitival relatives; Stowell 1986:476 duly notes that there are null operator constructions that do not seem to be (fully) subject to the text restriction, including finite relatives and, to a certain extent, parasitic gap constructions) are *pro*’s, with the copy of *pro* in the null operator’s base position then being subject to the same licensing restrictions that garden-variety *pro*’s are subject to.

- (4) a. the DA proved *the defendants* guilty during *each other's* trials
 b. the DA proved *the defendants* **to be** guilty during *each other's* trials
- (5) a. the DA proved *none of the defendants* guilty during *any* of the trials
 b. the DA proved *none of the defendants* **to be** guilty during *any* of the trials

Lasnik & Saito (1991) and many others in their wake have argued that in these kinds of circumstances, the ECM subject undergoes overt Object Shift. As I will show shortly, overt Object Shift does indeed provide a straightforward account of the facts in (4) and (5). But if the ECM subject *systematically* raised to a position relatively high up the matrix tree, it should behave like a matrix-clause constituent in *all* respects — *quod non*, as a–examples in (1) and (2) showed. I will argue in this section that the solution to this puzzle is to view Object Shift as a last resort, allowed to take place only if it has an effect on grammaticality/convergence. The examples in (1a) and (2a) are always grammatical, regardless of Object Shift, so Object Shift is not allowed, since it does not have an effect on grammaticality/convergence: delivering additional scope readings at LF is, after all, *not* a matter of grammaticality. What I will say about (4) and (5) in terms of overt Object Shift (following in the footsteps of Lasnik's work) thus leaves the account of (1a) and (2a) intact, as desired.

3.2 *Object Shift as a last resort*

For examples such as those in (4) and (5), Lasnik & Saito (1991) were the first to argue that the ECM subject must undergo movement into a position in the matrix clause outside the projection of the lexical verb. Moreover, the NPI facts in (5) make it particularly clear that this movement step should be taken already in the overt syntax. That there can be overt-syntactic movement of the ECM subject into a position above the matrix verb is also clear from the fact (already pointed out by Postal 1974; see also Johnson 1991) that the ECM subject can surface in the linear string to the left of a matrix-clause adverbial, as in *I've believed John for a long time now to be a fool*. The facts here are reasonably clear. The question is: do they jeopardise the idea that the non-ambiguity of the *be*-less versions of the examples in (1)–(3) and the ungrammaticality of (11a,b) with *to be* included are a consequence of the distribution of phase-extending movement of the RELATOR up to the verb at LF?

They would if we were to conclude from the grammaticality of (4) and (5) that the ECM subject *systematically* raises to a position relatively high up the matrix tree in overt syntax, and comes to behave like a matrix-clause constituent in *all* respects — this we know to be false, but we need to determine what makes the ECM subject of a small-clause complement sometimes behave like a matrix-clause constituent and sometimes not. We know there is evidence for overt raising of ECM subjects in some cases — examples such as those in (5) are our prime witnesses here. So we know that overt-syntactic movement of ECM subjects should be allowed by the theory. But if there is evidence that Object Shift is *sometimes* overt, does this entail that it *always* is? It seems to me that it does not. Fox & Pesetsky (2005b:240), with reference to a different empirical case, involving Quantifier Movement rather than Object Shift, present the general case thus: 'It is forced for principled reasons in exactly those constructions ... in which we seem to detect its obligatoriness — and is *not* required elsewhere'. Let me rephrase this slightly, tightening it in the process: It is allowed to take place *only* if it has an effect on grammaticality/convergence. The default case is that Object Shift will not take place ('Procrastinate'/'Don't move'); but if applying Object Shift is the *only* way to derive a *grammatical* output, then it will.¹³ In examples like those in (5), we are dealing precisely with cases in which Object Shift is required for convergence: without overt Object Shift, the NPI in the matrix-clause adverbial would not be licensed, and the sentences would be ruled out. But the sentences in (1)–(3) will always be grammatical, regardless of Object Shift. Of course, if Object Shift took place in overt syntax in the a–sentences in (1)–(3), they would accommodate the scope readings that are blocked without it — but as I said before, delivering

13 This is of course reminiscent of Chomsky's (1995:Ch. 3) idea that Procrastinate can be overridden for convergence.

additional scope readings at LF is not a matter of grammaticality, hence not something that can be ‘anticipated’ by applying overt Object Shift. There is no particular *grammatical* reason why overt Object Shift *must* be applied in the examples in (1)–(3), and hence, overt Object Shift is not allowed to take place in these examples. Thus, deriving (4) and (5) via overt Object Shift (along the lines of Lasnik & Saito 1991) actually leaves the analysis of (1)–(3) entirely intact. And it does not impinge on the tentative account of Postal’s (1974) examples in (11) either: (11a,b) with *to be* included will always be *ungrammatical*, regardless of Object Shift, because the requirement that the null operator’s *base* position not be separated from the verb by a phase boundary obviously cannot be satisfied by applying overt Object Shift.

3.3 Predictions

This approach of course makes predictions. One straightforward prediction, and one that is also straightforwardly confirmed, is that it should be grammatical to replace the two QPs in (1) with (simple) *wh*-words, thus forming a multiple, pair-list *wh*-question with a *wh-in-situ* in the position of the ECM subject:

- (12) a. who considers who(m) a fool?
 b. who considers who(m) to be a fool?

(12a) is predicted to be grammatical in spite of the absence of *to be* because here, in contrast to (1a), performing Object Shift on the ECM subject is a requirement for convergence in the version of the sentence lacking *to be*. Leaving *who(m)* in the small-clause subject position in overt syntax would ‘trap’ it there at LF, where ‘small clause restructuring’ takes place. But ‘trapping’ *who(m)* in the small-clause subject position prevents LF movement of the *wh-in-situ*, which on standard assumptions is a prerequisite for the formation of a well-formed LF representation for a pair-list multiple *wh*-question. So in (12) Object Shift is required for convergence — and since Object Shift as a last resort is indeed applicable precisely with an eye towards convergence, we expect, correctly as it turns out, that (12) will be grammatical with or without *to be*.

A further (and considerably more subtle) prediction is that the scope judgement on examples like (1a) should change in an environment in which overt Object Shift is forced as a last resort — for instance in contexts in which the ECM subject must raise into the matrix clause to license something there. To test this, we should investigate examples like (13) (modelled on (1) and the Lasnik/Saito data of the type in (4) and (5)). Suppose that, in order for (13) to license *him* as a bound variable inside the adjunct serving as a matrix modifier, *every congressman* should undergo overt-syntactic Object Shift. I should point out right away that this is by no means a necessary assumption: Sharvit (1999) and others have discussed cases of bound-variable construal in the absence of syntactic *c*-command. But assume for now, with Lasnik & Saito (1991), that overt Object Shift is indeed required to obtain the bound-variable reading here. Then it should be possible, with *every congressman* undergoing overt Object Shift for convergence in both (13a) and (13b), to obtain a reading for this QP in which it scopes over the existential subject regardless of whether *to be* is present or not.

- (13) a. someone considers *every congressman* a fool before/without even meeting/knowing *him*
 b. someone considers *every congressman* to be a fool before/without even meeting/knowing *him*

The facts here are very interesting. First of all, let me make it clear that I have found no speakers for whom (13a) is ungrammatical on a bound-variable interpretation: all my informants accept both sentences, and all allow a bound-variable reading for *him*. But speakers vary beyond this point. There turn out to be three groups of speakers:

- (a) one group rejects the baseline judgement on (1a), accepting $\forall > \exists$ (recall fn. 1), throughout
 (b) a second group correlates a bound-variable reading for *him* in (13a) with *wide* scope for \forall
 (c) a third group accepts a bound-variable interpretation for *him* in (13a), but still rejects $\forall > \exists$

Group (a) is uninteresting for our present concerns (though ultimately the theory should of course accommodate speakers who accept a wide-scope reading for the universal quantifier in sentences such as (1a); parametrising the application of ‘small clause restructuring’ would seem to be a hazardous line of approach, but I have no immediate insight to offer into how these speakers should be analysed). Group (b) confirms the prediction directly: overt Object Shift takes the small-clause subject to a scope position above the base position of the subject. And for group (c), apparently *every congressman* does not have to Object Shift to be able to bind *him* (*contra* what Lasnik & Saito 1991 and people following in their footsteps have consistently assumed): it is apparently sufficient for these speakers to have the QP undergo QR to VP (the extended phase in (6’)/(7a)), with the adjunct attached relatively low in the matrix or with the bound-variable reading resulting without there being a c-command relationship between the quantifier and the variable in the syntax (perhaps à la Sharvit 1999).

The overall picture that emerges reaffirms the ‘Object Shift as a last resort’ perspective: for speakers of group (c), the binding facts follow without Object Shift being necessary, so Object Shift as a last resort is not triggered, and as a result an inverse-scope reading for the universal quantifier is not licensed; for speakers of group (b), by contrast, Object Shift is forced to apply to procure a grammatical variable binding configuration, and concomitantly the universal QP can gain wide scope over the existential subject in (13a) (whereas it cannot in (1a), where Object Shift is not licensed).

4 Phase Extension in the theory of locality

Phase Extension is ‘domain widening’ resulting from movement of the head of a phase (either an inherent phase or a derived phase that is itself the result of phase extension) to the next head up the tree. Phase Extension is the automatic and unavoidable result of movement of such head movement. In the preceding discussion we came across situations in which phase-extending head movement, perhaps counterintuitively, delivers a *smaller* scope domain than would have resulted had no Phase Extension obtained. In this final section, I will review briefly a number of contexts in which Phase Extension has an *enlarging* effect, salvaging operations that would be ungrammatical without its application.

4.1 Predicate Inversion

One context in which Phase Extension results in a wider domain for the application of syntactic operations is the Predicate Inversion construction, instantiated by (14b), which I have argued in detail in my work on copular sentences (see Den Dikken 2006 and references cited there) is derived syntactically from the canonical copular sentence in (14a).

- (14) a. this book is the #1 best-seller in the country
 b. the #1 best-seller in the country is this book

What characterises sentences of the type in (14b) is the fact that the predicate linearly precedes its subject, and occupies the structural subject position of the clause. It has made its way there via overt-syntactic A-movement, crossing over the base position of the subject of the small clause, as depicted in (15).

- (15) a. $[_{RP} \text{ SUBJECT } [_{\text{RELATOR}} [_{\text{PREDICATE}}]]]$
 b. $[_{FP} \text{ PREDICATE}_i [_{RP} \text{ SUBJECT } [_{\text{RELATOR}} t_i]]]$

As things stand, (15b) is ill-formed, on the assumption (codified as hypothesis (b) in section 1.2, above) that all predications are phases in the base: the functional head *F* *qua* probe cannot see the predicate as a goal. To remedy this, phase-extending head movement of the RELATOR up to F, depicted in (15c), is required:

- (15) c. $[_{FP} \text{PREDICATE}_i [_{F+\text{RELATOR}}_j [_{RP} \text{SUBJECT} [t_j t_i]]]]$

In (15c), thanks to the extension of the RP phase up to FP, F can establish an Agree relationship with the predicate from its vantage point outside the RP, and attract the predicate to the A-specifier position SpecFP across the A-specifier position in which its subject is base-generated.

In my previous work (see, once again, Den Dikken 2006), I have exploited the necessity of phase-extending head movement in the derivation of sentences such as (14b) to explain a number of facts about these sentences — including the fact that movement of and from the subject of the inverted predicate is radically impossible, and the fact that, when embedded under verbs like *consider*, Predicate Inversion constructions force the presence of the infinitival copula *to be*, despite the fact that *to be* is otherwise perfectly optional below *consider*, as is well known.

- (16) a. *which book do you think that the #1 best-seller in the country is *t*?
 b. *which person do you think that the #1 best-seller in the country is a book about *t*?
 (17) a. I consider this book (*to be*) the #1 best-seller in the country
 b. I consider the #1 best-seller in the country *(*to be*) this book

The ban on extraction of and from the small-clause subject in an inverse copular sentence follows straightforwardly from the fact that phase-extending head movement, a prerequisite for Predicate Inversion, ‘traps’ the subject of the small clause within the domain of the extended phase, making it invisible to outside probes (such as C). And the distribution of the copula in (17) can be understood to be a surface reflex of the obligatoriness of movement of the RELATOR up to the small-clause external functional head F, on the assumption that the F+RELATOR complex is spelled out as the copula.

4.2 Long-distance A'-dependencies and successive-cyclicity

A second context in which Phase Extension makes interesting domain-widening predictions is that of long-distance A'-dependencies, for which Phase Extension makes available less densely successive-cyclic derivations than does standard work. For Chomsky (2000:108), ‘[t]he Phase-Impenetrability Condition requires that A'-movement target the edge of every phase, CP and νP — two nodes which, in Chomsky's thinking, are *always* phases. But on the ‘dynamic’ approach to phasehood espoused in this paper, phasehood is not necessarily set in stone — that is, a particular node that starts out life as a predication, hence as an inherent phase, may very well lose its phasehood in the course of the derivation as a consequence of the fact that its head has raised up to a higher position in the tree. So whereas for Chomsky, successive-cyclic A'-movement must always proceed via the edge of every νP and every CP, in all languages, in the Phase Extension model languages may very well differ with respect to the positions in which A'-moved constituents make an intermediate touch-down. Differences between Chomsky's approach and the present one are expected to arise because of two fundamental differences between the philosophies underlying the two approaches: (i) the fact that phasehood is flexible, shiftable on present assumptions but not on Chomsky's (as already pointed out), and (ii) the fact that inherent phasehood on present assumptions is the unique prerogative of *predications* (so CP, which is never a predication, is never an inherent phase; it can only *acquire* phasehood as a result of phase-extending head movement).

In the Phase Extension model, languages will be expected to differ with respect to how long-distance A'-movement proceeds *as a function of how head movement proceeds*. A language that does not move ν up to T preserves νP 's phasality and requires A'-movement to proceed via intermediate adjunction to νP , but *not* via SpecCP because CP is not inherently a phase and cannot (with ν staying *in situ*) acquire phasehood in the overt syntax. A language whose ν raises to T and no further turns TP into an extended phase, with movement proceeding via TP's edge but *not* via a νP -adjoined position or via SpecCP. And a language in which the T+ ν complex raises on to C has A'-movement proceeding straight to SpecCP, where an inter-

mediate stopover must be made. The buck will stop there: complementisers (C) cannot incorporate into lexical verbs selecting CPs (see Li 1990 for a rationale for this), so phasehood cannot be passed further up the tree. Long-distance A'–dependencies of VP–internal material will always be successive-cyclic in some way, therefore: it will never be possible to extract a constituent from out of the VP of an embedded clause *straight* into the SpecCP of the root clause; one stop-over will always be required.

Beyond this point, however, variation is expected to be rife. I already sketched out the situation for languages in which *v* does not raise at all, and languages in which *v* raises to T, or T+*v* moves on to C. But of course we know that there are languages in which the extent of overt verb movement depends on whether the verb is finite or non-finite; and we also know that there exist languages in which the extent of verb movement depends on whether the verb is in a root clause or in a non-root clause (as is the case, for instance, in the Germanic Verb Second languages). So the location of the phase boundaries in finite and non-finite clauses, and in root and non-root clauses, may vary, not only from language to language but *within* individual languages as well. It is obviously a huge typological undertaking to verify the correctness of the predictions made by this theory by sorting through the way long A'–movement proceeds for each individual clause type for each individual language, taking into account the diagnostics for successive cyclicity as well as for overt verb movement: one plainly cannot simply browse descriptive grammars of many of the world's languages and expect to find the answers right there. It goes without saying, therefore, that I cannot at this time give a full report on the success of the theory in this department. But I can offer some glimpses, at least, of cases that seem promising.

Thus consider the case of CP becoming an extended phase as a result of T–to–C movement. Pesetsky & Torrego (2001) have argued that there is a difference to be made, for English, between CPs that have the local subject in their specifier and CPs that have a non-subject in their specifier, when it comes to the application of T–to–C movement. In particular, they have argued that in the case of CPs featuring highest-subject A'–fronting, the subject in SpecCP can check all of C's features without the need for T–to–C movement arising; in CPs with a non-subject in SpecCP, by contrast, the uninterpretable Tense feature (a.k.a. the nominative Case feature) of C cannot be checked by the constituent in SpecCP, and T–to–C movement is forced to take care of the checking of that feature. Assuming this much, we might expect, from the point of view of the theory of locality developed in this paper, that extraction from highest-subject *wh*-constructions should be legitimate without a stop-over in SpecCP — because T–to–C movement does not take place in (18a), CP does not acquire phasehood in highest-subject *wh*-constructions, whereas it does in (18b), where T–to–C movement is obligatory.

- (18) a. $[_{CP} \text{ LOCAL SUBJECT}_j \text{ [C (*+T}_k) [_{TP} t_j [_{T_k} [_{VP} \dots]]]]]$
 b. $[_{CP} \text{ NON-(LOCAL) SUBJECT}_n \text{ [C *(+T}_k) [_{TP} \text{ SUBJECT}_j [t_k [_{VP} \dots t_n \dots]]]]]$

This provides an interesting perspective on Chung & McCloskey's (1983) observation (revisited in Chomsky 1986 in terms of his Vacuous Movement Hypothesis) that A'–extraction out of English highest-subject *wh*-constructions is typically much easier than A'–extraction out of other *wh*-constructions.¹⁴ The grammaticality of the example in (19a), contrasting with the ill-formedness of (19b,c), testifies to this.

- (19) a. that's one trick that I know a lot of people who've been taken in by
 b. *that's one trick that I know a lot of people who the police have taken in with
 c. *that's one trick that I know a lot of people who no one will admit have been taken in by

The fact that (19a) and similar such examples are grammatical, whereas extraction from finite *wh*-constructions introduced by a non-subject or non-local subject *wh*-constituent generally crashes, can be understood from the perspective of the representations in (18), in conjunction with Phase Extension.

14 It is not the case, however, that extraction from highest-subject *wh*-constructions is unrestricted; see Den Dikken (2006b).

Pesetsky & Torrego (2001) also relate the infamous complementiser-trace effect to the distribution of T-to-C movement, arguing that in a language such as Standard English, which has T-to-C movement in embedded finite clauses in principle (as we have seen), the obviation of the need for T-to-C movement in cases of A'-extraction of the local subject (recall (18a)) is signalled by the absence of the phonological reflex of T-to-C movement — that is, by the absence of a complementiser in C. Languages closely related to English (including, in fact, some dialects of English, such as the well-known case of Ozark English) do, however, allow an overt complementiser in contexts of extraction of the local subject — both in cases of long-distance extraction (i.e., *that*-trace cases: **who do you think that did it?*) and in cases of terminal A'-movement of the subject to the local SpecCP (i.e., 'doubly-filled Comp' cases: **I wonder who that did it*). In such languages, the distribution of the lexical complementiser is not tied to A'-extraction of the local subject. One suspects that in these languages, the lexical complementiser is not a reflex of T-to-C movement but instead an element base-generated in C (cf. Pesetsky & Torrego 2001:381 and their fn. 45 on the link with the distribution of *that*-trace effects). Assume so. Then the distribution of the lexical complementiser is a possible cue for the language learner towards determining the distribution of T-to-C movement: *that*-trace effects and a ban on 'doubly-filled Comp' with A'-movement of the local subject necessarily exist in languages that have T-to-C movement in embedded clauses; languages without T-to-C movement in embedded clauses do not have *that*-trace effects and do not necessarily block sentences like *I wonder who that did it*.¹⁵ Now recall that T-to-C movement, in turn, is a precondition for CP's acquisition of phasehood: CP, not being a predication, is not inherently phasal, so it can only end up being a phase if the head of some lower phase raises up to it. So if T-to-C movement is instrumental in providing CP with phasal status,¹⁶ and *that*-trace effects are a function of T-to-C movement, then we may venture the hypothesis that languages that do not evince *that*-trace effects do not have a phasal CP.

With this in mind, consider the case of Chamorro, an Austronesian language spoken on the Mariana Islands (incl. Guam, Saipan). In this language, long-distance extraction of the subject of an embedded clause does not give rise to a complementiser-trace effect: the complementiser that will normally be selected in a particular environment will continue to materialise when the subject of the complement clause is *wh*-extracted, as seen in (20) (from Chung 1998:294):

- (20) hayi na taotao ma-suspectha ni lalahi [_{CP} na man-dädagi]? (Chamorro)
 who LINK person AGR.PASS-suspect OBL men COMP WHNOM.AGR.APASS-lie.PROG
 'which person did the men suspect (that) was lying?'

If the absence of complementiser-trace effects in the language is indicative of the absence of T-to-C movement in embedded clauses, and if the absence of T-to-C movement in turn deprives CP of phasal status, this leads one to suspect that Chamorro is a language that extracts its *wh*-phrases directly from CP, without a stop-over in SpecCP.

One indication that this is correct comes from the distribution of *wh*-agreement on complementisers, which, following Chung (1998), I will take to be a reflex of a Spec-Head relationship in CP in Chamorro. As Chung (1998:229) points out, such agreement is manifest only on the *highest* complementiser in the structure of the A'-dependency: 'the intermediate C⁰ ... has its form determined not by Operator-C Agreement but instead by the normal considerations that govern complementizer choice. In [(21a)] this C⁰ is null because it is nonfinite; in [(21b)] it is spelled out as *na* because it is finite, noninterrogative, and nonroot.'

15 The realisation of C in the latter type of languages can still co-vary with tense, thanks to the Agree relationship that is established between C and T. Systematic co-variation of complementisers and tense therefore is not an indication of T-to-C movement (only of a feature-matching relationship between C and T).

16 It should be borne in mind that T-to-C movement *by itself* will not necessarily endow CP with phasal status: since T is not an inherent phase-head, T-to-C movement will only give CP phasehood if the T that raises to C has *v* (or some other phase head) adjoined to it.

Note that if Chamorro long-distance *wh*-extraction proceeded via SpecCP, we would fail to predict the empirical outcome in (22). To see this, let us consider the predictions made for (22a) by the successive-cyclic scenario in (24), where *v* qua probe has two equidistant goals and can Agree with just one of them — the *wh*-constituent in SpecCP, to be precise: in order for *v* to be able to attract it to its edge, the matrix *v* must establish an Agree relationship with the *wh*-phrase, so it must forgo agreement with the CP.

$$(24) \quad \dots \left[{}_{vP} v \dots \left[{}_{CP} wh \left[C \dots \overline{wh} \dots \right] \right] \right] \quad \text{---: Agree: either/or}$$

The result of a derivation built on (24), featuring successive-cyclic extraction via SpecCP, would have yielded *wh*- AND Case-agreement between *v* and the *wh*-constituent — concretely, in (22a) the matrix verb should then show the ‘WHNOM’ form. But as Chung (1998) stresses, this is entirely impossible: whenever the matrix verb in a long-distance A’-extraction construction in Chamorro shows *wh*-agreement, it must Case-agree with the clause from which extraction takes place, not with the *wh*-extractee.

I thus conclude that Chamorro builds its long-distance A’-dependencies via (23), not via (24). From the perspective of the Phase Extension theory of locality, this means that in Chamorro, embedded CP is not a phase.¹⁷ This in turn means, once again from the perspective of the Phase Extension model, that there is no phase-extending head movement up to C in embedded clauses in Chamorro. And this in turn is directly compatible with the absence of complementiser-trace effects in the language (recall (20)).¹⁸

It would probably go too far to radically equate the absence of complementiser-trace effects with the absence of T-to-C movement and hence with the non-phasality of CP. Thus, for instance, a language that does obligatorily use a complementiser in cases of long-distance extraction of the local subject but uses one that is morphologically different from the one otherwise employed in embedded CPs (cf. French, on one particular outlook on the ‘*que*→*qui* rule’) could not immediately be taken to lack embedded T-to-C movement. But a language like Dutch, which allows both complementiser-trace sequences and ‘doubly-filled Comp’ configurations with extraction of the local subject, and which has precisely one finite non-interrogative complementiser (*dat*), is certainly a good candidate for a language which, like Chamorro, lacks embedded T-to-C movement. The theory of phases outlined in this paper would therefore lead us to expect Dutch to show no evidence for successive-cyclic extraction from CP (which is arguably true: even Dutch dialects involving complementiser agreement provide no evidence for a *Spec-Head* relationship between an embedded C and a *wh*-constituent), and, more strongly, to give us proof that extraction from CP *cannot* proceed via the edge of CP.

17 Rackowski & Richards (2005), who were the first to propose a derivation of the type in (23), for Tagalog (an Austronesian language closely related to Chamorro, with *wh*-extraction data that are entirely compatible with — though much less spectacular than — those of Chamorro), argue that this derivation is compatible with CP being a phase even in languages employing (23). In particular, they argue that the Principle of Minimal Compliance of Richards (1998) enables the matrix *v* to probe into the embedded CP once it has established an Agree relationship with the CP. I have no compelling reason to reject this PMC-based approach to (23), and will therefore concede that (23) is compatible with phasality for CP — but I hasten to add that the present outlook on (23) allows the theory to dispense with the PMC (at least in this particular context; whether the Phase Extension model allows the PMC to be dispensed with altogether is an issue I must leave for future research), and hence makes for a simpler theory (assuming, of course, that Phase Extension is independently necessary, which I hope to have shown it is).

18 The facts of Hungarian long-distance A’-dependencies are in many ways comparable to those of Chamorro: there is no complementiser-trace effect, and the matrix verb can morphologically agree with the complement clause in cases of extraction from a finite CP, suggesting that it is possible for (23) to be employed in the formation of long-distance A’-dependencies in the language. But the Hungarian picture is subtler than that sketched for Chamorro: (24) must be available as well. See Den Dikken (2006, 2008) for discussion. For cases of long-distance extraction of the subject of a finite complement clause, Den Dikken (2006, 2008) shows that extraction proceeds either (a) from a *vP*-internal position up to the embedded SpecCP and on into the matrix clause (with the embedded SpecTP being filled by an expletive *pro*; cf. Rizzi 1982 for Italian), or (b) from SpecTP straight up into the matrix clause. From the perspective of Phase Extension theory, (a) should be correlated with phase-extending movement to C, and (b) should involve no such movement. Finding (independent) morphosyntactic indicators of the distribution of phase-extending head movement to C in Hungarian is not a simple matter, however. I must leave this project for a future occasion.

It seems to me that this may allow us to understand in some interesting, non-*ad-hoc* way, the difference between Dutch and English with respect to extraction from *wh*-islands. As is well known, while such extraction is typically only very mildly degraded in English, it is strongly deviant in Dutch. The contrast between (25a) and (25b) is representative.

- (25) a. ?which problem don't you know how you should solve?
 b. *welk probleem weet je niet hoe je moet oplossen?
 which problem know you not how you must solve

The phasality of CP in English renders it possible for movement to proceed via CP's edge, providing an escape from *wh*-islands of the type illustrated in (25a): at the point at which the long-moved *wh*-phrase is at the edge of CP, the matrix *v* can establish a local Agree relationship with it and attract it further up into the matrix clause. But in Dutch, where T-to-C movement arguably does not take place in embedded clauses (in light of the fact that the language shows no complementiser-trace effects and allows 'doubly-filled Comps' with local-subject *wh*'s), the embedded CP is not a phase, rendering successive-cyclic extraction via CP's edge illicit. The closest goal for a matrix probe looking for a *wh*-constituent will therefore be the *wh*-phrase introducing the embedded question (*hoe* 'how' in (25b)) — and that *wh*-phrase will be the *unique* goal for the matrix probe, which cannot reach across this *wh*-phrase and establish an Agree relationship with the object-*wh* *welk probleem* 'which problem' for locality reasons.

I offer these remarks on Chamorro, Dutch and English A'-dependencies as tentative suggestions that languages (and particular environments within languages) do indeed differ with respect to the question of whether CP is a phase, and that the difference is determined by the question of whether phase-extending head movement to C takes place or not: CP is not inherently phasal (because it is not a predication); it is only in environments in which phase-extending movement up to C obtains that CP will acquire phasehood. It will of course be incumbent on me (and on anyone else who is interested in developing the Phase Extension model further) to find more, and more conclusive, support for the ingredients of the theory in the domain of CP. But what I hope to have shown in section 2 of this paper is that there is strong reason, in the domain of scope phenomena, to believe that four of the five central ingredients of the theory laid out in section 1.2 are confirmed: (a) scope positions are uniquely on the edges of phases, (b) phases are uniquely defined in the base as predications, and (c) phases are extended upwards as a result of syntactic movement of the phase head — in the case at hand, via (d) LF-incorporation of the functional head of the small-clause complement into the verbal root. In addition, I have also argued, in section 3, that (e) Object Shift is a last-resort operation licensed only if it has an effect on grammaticality.

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Selected References Dikken, Marcel den. 2006. *Relators and linkers: The syntax of predication, Predicate Inversion, and copulas*. Cambridge, MA: MIT Press. • Hornstein, Norbert. 1995. *Logical Form*. Oxford: Blackwell. • Lasnik, Howard & Mamoru Saito. 1991. On the subject of infinitives. *CLS* 27. 324–43; reprinted with minor revisions in Lasnik (1999), *Minimalist analysis*. Oxford: Blackwell. • Stowell, Tim. 1991. Small clause restructuring. In Robert Freidin (ed.), *Principles and parameters in comparative grammar*. Cambridge, MA: MIT Press. • Williams, Edwin. 1983. Against small clauses. *Linguistic Inquiry* 14. 287–308.

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