

Book Review

Kleanthes K. Grohmann, *Prolific Domains: On the Anti-Locality of Movement Dependencies* (Linguistik Aktuell 66). Amsterdam: John Benjamins Publishing Company. 2003. pp. xv + 369, ISBN 1588114414

1. Introduction

The past fifteen years have seen the compact CP–IP–VP clausal structure of Chomsky (1986) explode into many hypothesized projections (see, e.g., Larson 1988, Pollock 1989, Rizzi 1997, Cinque 1999, Hale & Keyser 1993, to mention a small fraction of this literature). In recent work within the framework of the minimalist program, some reduction in the number of hypothesized functional heads has been attempted (e.g., Chomsky 1995), but the consensus view remains that these regions of the clause are more complex than the unitary projections once assumed. At the same time, there is a “theme” to each region of the clause—corresponding roughly to the original conception of CP, IP, and VP—and syntacticians still commonly refer to them in those terms when the “fine structure” is not pertinent to a given discussion.

One of the basic claims of *Prolific Domains: On the Anti-Locality of Movement* is that the grammatical system makes reference to this three-way partition of the clause (corresponding to the traditional CP, IP, and VP), over and above the details of any fine structure of each region. These regions are the “prolific domains” (intended to suggest domains of clause structure in which many projections exist). Specifically: Discourse-related projections appear in the Ω -domain (CP), which are properly above the agreement-related projections in the Φ -domain (IP), which are properly above the thematic and lexical projections in the Θ -domain (VP). Each domain is considered to be a unit of interpretation at the PF and LF interfaces, similar in concept to the derivational phases introduced by Chomsky (1999).

With that as background, Grohmann’s core proposal is that syntactic movement of the familiar sort proceeds in one of two ways: Either (a) from within one prolific domain into the immediately higher prolific domain, or (b) from within a prolific domain into the prolific domain of the same type in the next higher clause. This sets both an upper and a lower bound on the distance over which such movements can occur. Grohmann casts this as an absolute constraint on syntactic movements, but with a very specific loophole to allow certain movements that would otherwise be “too short”: A movement that starts and ends within the same prolific domain must have its lower copy (trace) pronounced, in order to avoid confusing the interpretive component.

The book is primarily concerned with outlining and defending the theoretical utility of prolific domains in formulating constraints on syntactic movement operations. Also, it contains a substantial discussion of left dislocation and possessive constructions in Germanic languages, which will be of interest to a broader audience beyond the minimalist technicians. The empirical data Grohmann analyzes is drawn largely from German, English, Modern Greek, West Flemish, and Norwegian. His specific arguments will be reviewed briefly below.

The book is a substantially revised update of Grohmann’s dissertation (Grohmann 2000), and is easy to read, thoughtfully argued, and generally clearly written. The

chapters on left-dislocation and possessor constructions are rich in empirical data from several Germanic languages, and the entire book provides an interesting analytical perspective on them.

2. Overall structure

The book is divided into nine chapters, and is 369 pages long (of which, 45 pages are devoted to the bibliography and indices). The first chapter lays out the history of locality in generative grammar and lays out the basic proposal about prolific domains and “anti-locality.” The second chapter is an extended discussion of the minimalist program, and of the specific assumptions made in the book. Chapters three through five contain the main defense of the proposal by looking at domain-internal movement in the θ -domain (chapter 3, concerned with reflexives), the Ω -domain (chapter 4, concerned with left dislocations), and the Φ -domain (chapter 5, concerned with clitic left dislocation specifically). Chapter six presents an analysis of possessor doubling in the DP as an example of too-local movement in the nominal domain. The seventh chapter turns the discussion away from short movements to explore successive cyclic movement across clauses. The final two chapters contain discussion of the framework as a whole, some comments about the relation between this proposal and the existing literature, and a brief synopsis.

In this review, section 3 introduces Grohmann’s proposal in the context of his derivational approach to reflexives. Section 4 takes up the discussion of left-dislocation constructions, and section 5 contains a brief overview of pronominal doubling of possessors. Section 6 covers Grohmann’s analysis of interclausal successive-cyclic movement, and sections 7–8 discuss Grohmann’s proposal within the broader theoretical context.

3. The Condition on Domain Exclusivity, *self-anaphora*, and copy spell out

Grohmann’s research program in this monograph takes as its starting point Hornstein’s (2001) approach to movement and “construal” within a minimalist framework. Hornstein points out that the type of obligatory coreference that arises from Binding Theory and Control Theory within a Government-Binding framework does not mesh well with the philosophy of the minimalist program, and argues that such effects should arise not from additional syntactic modules, but rather from independently needed constraints on movement and pronunciation. Hornstein proceeds to argue against the notion of PRO, instead deriving obligatory control structures via movement operations.

The first step to any argument that control arises from movement is to abandon the traditional θ -criterion, since it is by hypothesis permissible for a single argument to take on multiple θ -roles. Having taken that step, one must explain why (1) cannot mean (2); without the θ -criterion to rule it out, one would expect that *John* should be able to raise from Theme to Agent position and thereby take on both roles.

- (1) *John promoted.
- (2) John promoted himself.

Grohmann proposes that what rules out (1) is that the movement by which *John* would pick up both roles is too short (and not anything related to having two roles in the

first place). Such a movement would necessarily take place entirely within the Θ -domain (the prolific domain bounded at the top by νP). Grohmann hypothesizes that movements this short are ruled out—except in one specific circumstance. That circumstance turns out to be illustrated by (2): A movement so short as to take place entirely within a prolific domain must result in the pronunciation of the lower copy, e.g., as *himself* in (2). Grohmann’s statement of the condition that ensures this is given in (3).

(3) Condition on Domain Exclusivity (CDE)

For a given Prolific Domain $\Pi\Delta$, an object O in the phrase-marker must receive an exclusive interpretation at the interfaces, unless duplicity of O yields a drastic effect on the output of that $\Pi\Delta$.

Grohmann adopts a minimalist interpretation of movement as a process of merging copies, where, under most circumstances, copies other than the highest one are left unpronounced. The CDE penalizes syntactic objects that co-exist with a copy within a single prolific domain unless one copy is distinguished in a manner that qualifies as having a “drastic effect on the output.” Pronouncing the lower copy as a pronominal form (via the operation of “copy spell out”) satisfies this condition.

In ECM constructions like (4), *herself* is also presumed to be a product of copy spell out (forced by an excessively local movement step), but it presents a different situation: Here, *Mary* is not taking on two θ -roles from the same predicate (that is, within the same Θ -domain), but is taking on θ -roles from two different predicates. Presupposing that this occurs by moving from one θ -position to another, the movement that accomplishes this would be sufficiently long to avoid a violation of the CDE. Accordingly, the pronounced reflexive pronoun *herself* must arise from an overly short movement at some other point in the derivation.

(4) Mary expects herself to win the race.

Grohmann proposes that *herself* in (4) arises from a movement taking place within the Φ -domain of the higher clause. Specifically, *Mary* gets a θ -role from *win* in the Θ -domain of the lower clause, then moves into the Θ -domain of the higher clause to collect a θ -role from *expect*. *Expect* is associated with both nominative and accusative case, and so *Mary* moves first to the Φ -domain of the higher clause (checking accusative case in SpecAgrOP), then moves again—within the same Φ -domain—to the subject position (checking nominative case). This last step would violate the CDE unless the lower copy (in the accusative case-checking position) is spelled out (as *herself*). The derivation Grohmann provides is given below in (5) (adapted from p. 268), where the \supset symbol indicates “copy spell out” and the “?P” labels a functional projection above AgrOP to which the verb moves (overtly).

(5) $[_{IP} \text{Mary } I^0 [_{?P} \text{expects-? } [_{AgrOP} \text{Mary } \supset \text{herself AgrO}^0 [_{VP} \text{Mary } v^0 [_{VP} t_V$
 $[_{IP} \text{Mary- to-} I_0 \text{ win the race}]]]]]]$

This analysis leads to the conclusion that two separate types of too-local movement can result in the appearance of a *self*-anaphor in English: 1) movement within

the Θ -domain, and 2) movement within the Φ -domain. It also forces the conclusion that the movement of *herself* to SpecAgrOP in (4) has happened overtly: The reason for the copy spell out in (4) is that an object formed from a single set of elements of the initial lexical array has checked both accusative and nominative case—overtly—within the same clause.

This type of derivational approach to reflexives can potentially cover most of the same territory as Principle A of the Binding Theory: The reason that *self*-anaphora must be so local to their antecedents is simply that they are generated derivationally as a result of a too-local movement. Grohmann explores this in some detail (again in large part following the lead of Hornstein 2001), comparing his proposal with other derivational analyses of reflexives, both historical and contemporary. Whether such an analysis can fully replace Principle A remains to be seen, but Grohmann develops an account of a number of subcases within his framework.

Commentary

The statement of the CDE in (3) reflects Grohmann’s view that the underlying reason such a constraint on too-local movement exists is that the interfaces (in particular, the PF interface) must find only one instantiation of a given syntactic object within a unit of interpretation (the prolific domain). This requirement can be skirted by distinguishing two copies in some way, although stating this as a requirement for a “drastic effect on the output” seems to leave the means of satisfaction rather vague. In practice, the means of distinguishing two copies in a single prolific domain is to convert the lower copy into a pronominal form. It would be appealing to think of this as simply a pronunciation rule: When two copies are to be phonologically interpreted within the same domain, the lower one sounds like a pronoun. However, certain aspects of Grohmann’s analyses (or, perhaps, the empirical data themselves) require that this operation is more than a simple pronunciation rule—rather, the lower copy must take on a “life of its own” at the point of copy spell out, just as if it had been initially part of the lexical array. This can be illustrated by comparing the analysis of the reflexive ECM subject in (4) to the analysis of the simple reflexive in (2).

The fact that (2) does not sound like *John promoted himself himself* tells us that the derivational journey of *John* must have split at the point of copy spell out. Whereas the accusative subject in (4) must have moved overtly to its case-checking position, the accusative object in (2) must move independently (and probably covertly) to its case-checking position. Had *John* in (2) moved as a single syntactic object to check both nominative and accusative case, there would have been a second too-local movement (in the Φ -domain), just as in (4). That is, at the point of copy spell out, *himself* becomes a full-fledged member of the set of syntactic objects, which must eliminate its own uninterpretable features without help from the now (at least partly) dissociated *John*. Grohmann’s derivation of (2) is given in (6) (adapted from p. 113).

(6) $[_{IP} \text{John } I^0 [_{\text{AgrOP}} (\text{himself}) \text{AgrO}^0 [_{VP} \text{John } v^0 [_{VP} \text{likes } \text{John} \rightarrow \text{himself}]]]]$

This aspect of copy spell out is left largely implicit in the book, although Grohmann’s derivations reveal that this is his analysis. There are several ways in which the details might be worked out, although they are left unexplored. Here is (a start on)

one way it might be spelled out: Grohmann’s assumption is that movement makes a copy and merges it into a position where a feature is checked. The original retains its unchecked feature, but one might assume that this is normally obscured from the (PF) interface by non-pronunciation (cf. proposals by Lasnik (1995), Richards (2001) that ellipsis can circumvent the need for some features/constraints to be checked). By virtue of being pronounced, the spelled out copy loses access to that avenue of escape and must now check its uninterpretable features on its own. The spelled out copy in the Φ -domain of ECM constructions like (4) is already in its final position and needs move no further—although something still must be said about why it must raise to subject position, having checked its case feature in AgrOP. Grohmann argues (in chapter 7) that the EPP is not an active force in the syntactic computation, yet here is a point at which it would have been useful: something must force *Mary* to undergo that last movement in (4) (which actually yields the copy spell out), while at the same time not leaving an unchecked feature behind on the spelled out copy that would require *herself* also to undergo that movement. At this point, technical options concerning how features—and the responsibilities for checking them—are shared between copies multiply beyond what can reasonably be discussed or evaluated in this review, but this suffices to illustrate one piece of Grohmann’s proposal that still requires some fleshing out before the real predictions can be fully identified.

Looking more globally, the CDE proposed in the present monograph shares with its predecessor from Grohmann (2000) a certain lack of clarity with respect to the nature of the “exclusivity” required of copies in a single domain. Menuzzi (2002), in a review of Grohmann (2000), made this point, citing the sentence in (7), where both instances of *himself* arise from copy spell out due to the single argument *John* collecting all three θ -roles from *protect*.

(7) John protected himself from himself.

The question with respect to (7) is how the lower two copies (themselves within a single Θ -domain) are distinguishable from one another, from the point of view of the (PF) interface. They must be, as Grohmann observes in a brief discussion of the issue in chapter 8, and this would follow if what is required of the spelled out copies is only that they differ from the original. However, how that would satisfy the requirement of exclusive interpretation at the interface remains elusive. Again, this tends to point toward a view of copy spell out as conferring a “life of its own” to the affected copy in some fashion that requires further elaboration.

4. Left dislocation and copy spell out in the Ω -domain

Chapters 4–5 deal with left dislocation constructions and extend the copy spell out proposal to the Ω -domain (CP). Grohmann starts by surveying the landscape of left-dislocation constructions and reviewing the arguments from Chomsky (1977) that only in topicalization is movement involved, whereas “hanging topic left dislocation” (HTLD) is the result of base-generation.

- (8) This book, we should give to John. (topicalization)
 (9) This book, we should give it to John. (HTLD)

A primary focus of chapter 4 is the “contrastive left dislocation” (CLD) construction, exemplified by the German sentence in (11). This is compared to topicalization (10) (which patterns like (8) in English), and HTLD (12–13) (which pattern like (9) in English). The CLD construction has a resumptive pronoun, like HTLD, yet shows characteristics of movement, like topicalization. One such characteristic of movement is illustrated in (10–11): the left-dislocated phrase shows connectedness effects, and can be bound by a subject over which it must have moved.

- (10) Seinen besten Freund sollte jeder gut behandeln. (German topicalization)
- (11) Seinen besten Freund, den sollte jeder gut behandeln. (German CLD)
 his.ACC best friend RP.ACC should everyone well treat
 ‘His best friend, everyone should treat well.’
- (12) [Diese-r/-n Mann] — den/ihn habe ich noch nie gesehen. (German HTLD-I)
 this.NOM/ACC man RP.ACC/him have I yet never seen
 ‘This man, I’ve never seen him before.’
- (13) [Diese-r/-n Mann] — ich habe den/ihn noch nie gesehen. (German HTLD-II)
 this.NOM/ACC man I have RP.ACC/him yet never seen
 ‘This man, I’ve never seen him before.’

Grohmann differentiates two types of HTLD in German, which he arbitrarily names HTLD-I and HTLD-II. Both types of HTLD have an intonational break after the initial constituent, in contrast to CLD and topicalization. What differentiates HTLD-I from HTLD-II is the position of the resumptive pronoun; Grohmann analyzes HTLD-II as identical to HTLD-I, but with the pronoun topicalized.

Grohmann runs through several diagnostics for movement, all of which indicate that CLD is derived by movement (contrasting with HTLD). The reconstruction fact in (11) indicates that the whole XP (not just the pronoun) undergoes movement in CLD. The ultimate descriptive generalizations are summarized (p.152) as follows:

- | | | | | |
|------|-----|--------------------------------------|--|---------|
| (14) | a. | $[\Omega_{\Delta} \text{HT pron V}]$ | $[\Phi_{\Delta} \dots \text{pron} \dots [\Theta_{\Delta} \dots \text{pron} \dots]]$ | HTLD-I |
| | a.’ | $[\Omega_{\Delta} \text{HT}]$ | $[\Phi_{\Delta} \dots \text{pron} \dots [\Theta_{\Delta} \dots \text{pron} \dots]]$ | HTLD-II |
| | b. | $[\Omega_{\Delta} \text{XP pron V}]$ | $[\Phi_{\Delta} \dots \text{XP} \dots [\Theta_{\Delta} \dots \text{XP} \dots]]$ | CLD |

Since the diagnostics show that the XP in CLD has undergone movement, Grohmann proposes that the XP moves into the Ω -domain (via topicalization) and then moves again within the same Ω -domain, forcing the lower copy involved in the second movement to be spelled out as a pronoun. The difference between topicalization and CLD is this second movement: CLD is ‘topicalization plus something else,’ although the identification of that something else is left for the most part unexplored—it is just something that requires moving to a projection higher than the Topic projection within the Ω -domain, and is also presumably correlated with the “contrastive” interpretation CLD receives.

Grohmann establishes that the structural position of the XP involved in HTLD is different from that of the XP involved in CLD: HTLD and CLD can co-occur, so long as the hanging topic(s) precede(s) the CLDed XP, and HTLD can be iterated (allowing any number of hanging topics), whereas CLD can only apply once. Grohmann assumes that specifiers are unique (contra some of the recent minimalist literature), and that adjuncts can iterate but can only be base-generated. From these assumptions, the natural interpretation of the facts just reviewed is that hanging topics are adjoined to CP, while CLDed XPs move to the specifier of a designated functional projection (perhaps SpecCP, the highest specifier position in the Ω -domain).

Chapter 5 continues the discussion, turning to consideration of the clitic left dislocation (CLLD) construction in Greek. In the context of the framework being developed, this provides a second example of copy spell out in the Φ -domain (the first being the ECM construction discussed earlier). The Greek CLLD construction is illustrated in (15). Like CLD, CLLD shows diagnostics of movement, but unlike CLD, CLLD is iterable, and seems to be immune to *wh*-islands.

- (15) [Afton ton andra], dhen ton ksero. (Greek CLLD)
 this.ACC the.ACC man.ACC not 'im know.1SG
 'This man, I don't know ['im].'

In analyzing Greek CLLD, Grohmann again calls upon the idea that the resumptive clitic is a spell out of a lower copy of the XP that has moved. Since the clitic in these constructions is in the Φ -domain, the too-local movement must have occurred within the Φ -domain. The ultimate position of the XP is taken to be the specifier of a topic phrase, which—adopting Rizzi's (1997) proposal that topic phrases themselves are recursive—accounts for the ability to CLLD multiple phrases.

If the clitic is to be a spelled out copy of the entire (fully phrasal) XP, the fact that the clitic winds up adjoined to a functional head must indicate that the XP had itself been adjoined to the functional head. Specifically, Grohmann proposes that the entire XP is at one point adjoined, as the verb is, to AgrO, and then is excorporated to move into the specifier of AgrOP, where it checks case. It is this movement (from head-adjoined position to specifier position) that is too short, and requires that the lower copy be spelled out.

Commentary

The insensitivity of CLLD to *wh*-islands never returns to the discussion after the initial statement of the observation, so it is not clear what explains this property. I must also point out a small inconsistency: in a discussion of what prevents German from having CLLD, Grohmann speculates that one possible derivation is ruled out on the grounds that copy spell out can only apply once to a given object (p. 193)—but this cannot be the explanation, as it must be possible to do this in the presumed derivation of (7).

Grohmann's analysis of the CLD construction in German is elegant and fits seamlessly into the basic architecture he is proposing. The analysis of the Greek CLLD construction is a bit more forced. For the facts to follow from copy spell out, a too-local movement must occur entirely within the Φ -domain. Grohmann's solution is to suppose that the moving XP adjoins to AgrO and then excorporates to move into the specifier of

the same phrase; however, this sort of movement lies outside the usual canon. Grohmann's discussion would have benefited from a bit more time spent on this point specifically, since his proposal is relatively radical. Proposing "head-adjunction" of XPs is not without precedent; for example, Carnie (2000) has also argued, based on a different set of data, for movement of this sort. Proposing that the XP excorporates from AgrO to move to the specifier of AgrOP is rather more innovative. Grohmann briefly suggests that this movement occurs in order to rescue the structure from prosodic ill-formedness (rather than occurring in order to check a feature—adjoining to AgrO should have already checked all relevant features), but after introducing and calling upon this seemingly powerful new type of movement, the topic is not discussed further. This quick treatment of the most central part of Grohmann's analysis of CLLD leaves many questions open, and leaves it on shakier ground than his analysis of CLD.

5. Pronominal doubling of possessors

The sixth chapter (based on joint work with Liliane Haegeman, Grohmann & Haegeman 2003) extends Grohmann's proposal to pronominal doubling of possessors, a frequently occurring construction across Germanic dialects. An example of this construction is the German (16).

- (16) der Anna ihr Wagen
 the.DAT Anna her.NOM car
 'Anna's car'

In keeping with his basic hypothesis, Grohmann analyzes the pronominal double as a spelled out copy of the possessor. He lays out the facts of German, West Flemish, and Norwegian (each of which has this type of doubling construction), showing that the possessor is a fully phrasal constituent, which may be definite or indefinite, and which may recurse. The current consensus view of DP is that it contains much of the same structure as the clause, and consequently should also contain roughly the same set of prolific domains (a Θ -domain, a Φ -domain, and a Ω -domain). The derivation resulting in pronominal doubles is analogous to that of reflexive subjects in the ECM constructions discussed earlier: the possessor must raise into the Φ -domain to be licensed (e.g., by a PossP), and must then raise into a nominal subject position within the same Φ -domain. This excessively local move (required due to the dual role of the possessor as possessor and subject) forces copy spell out.

West Flemish, Dutch, and German all have a left-dislocation (topicalization) construction within DP as well, which results in two resumptive pronouns, as in the German (17).

- (17) (der) Merkel der ihre Fresse
 the.DAT Merkel RP her mug
 'Merkel's mug'

Grohmann analyzes this as a movement first from PossP to AgrP in the Φ -domain (yielding *ihre* as a copy spell out of the lower position), then to DP, and finally to a

nominal topic position TopP (both in the Ω -domain, yielding *der* as a copy spell out of the lower position).

In addition to arguing for the specific configuration that yields copy spell out under his proposal, Grohmann also tackles the typological variation between Norwegian, West Flemish, and German, with respect to where the possessor surfaces structurally. He argues that the possessor in West Flemish and German moves into the Ω -domain (SpecDP), whereas the possessor in Norwegian does not move beyond the Φ -domain (remaining in SpecAgrP).

6. Successive cyclicity

The seventh chapter, “Successive cyclicity revisited,” stands somewhat apart in this book. Not only does this chapter differ in subject matter, focusing on inter-clausal movement, but it also contains a thorough review of the preceding chapters of the book—somewhat redundant for those reading the book cover-to-cover, but yet allowing for this chapter to be read alone. Chapter 7 serves to situate Grohmann’s hypothesis in a larger context: The reference to prolific domains is not needed not only for left-dislocation constructions, but has effects throughout the grammar of movement.

Grohmann observes that the examples of inter-clausal movement commonly encountered can be described as movement between prolific domains of the same type. *Wh*-movement proceeds successive-cyclically from SpecCP to SpecCP (from Ω -domain to Ω -domain); subject raising proceeds from SpecIP to SpecIP (from Φ -domain to Φ -domain); control structures involve raising from SpecvP to SpecvP (from Θ -domain to Θ -domain). Considered together, these observations suggest that inter-clausal movement is in fact constrained to target positions within the same type of prolific domain in the next higher clause.

After proposing such a restriction on inter-clausal movement, Grohmann moves on to consider several areas in which this forces a reevaluation of prior analyses. Of particular interest to Grohmann in this chapter is the EPP, which he argues cannot hold as an independent principle in light of the constraint on inter-clausal movement. One example he gives is subject control (analyzed as being a result of movement): Control structures involve raising an argument from a θ -position in the lower clause into a θ -position in the higher clause. The constraint on inter-clausal movement requires that this happens without a stop in the Φ -domain in-between; thus, the argument does not move through the “EPP position” (SpecIP) of the lower clause. On the other hand, in raising constructions, the situation is different. Raising verbs are analyzed as having an impoverished Θ -domain (providing no place a raised argument might land), and so a raised argument must move directly into the Φ -domain of the higher clause without stopping in the Θ -domain. This entails that a raised argument (unlike a “controlled” argument) must move into the lower Φ -domain first, in order to be able to “reach” the higher Φ -domain. Grohmann observes that, assuming a movement-based analysis of control and an analysis of floating quantifiers as optionally stranded during movement, the facts below follow from his analysis. Specifically, in (18), the fact that *all* can be left behind in SpecIP indicates that *all the students* stopped there, while in (19), the fact that *all* is not allowed in SpecIP suggests that *all the students* never occupied that position.

(18) The students seem all to know French.

(19) *The students try all to know French.

This portion of the chapter closes on a somewhat speculative note. Distinguishing control and raising constructions in this way paints Grohmann into a corner for combinations of raising and control verbs, such as (20).

(20) John wants to seem to kiss Mary.

Here, *John* must raise to get the external θ -role of *want* in the Θ -domain of the highest clause. By the inter-clausal movement constraint, it must do so by traversing only Θ -domains (moving from the lowest Θ -domain to the intermediate Θ -domain and then on to the matrix Θ -domain). If raising verbs generally have an impoverished Θ -domain, the first step should be blocked, since the intermediate clause is headed by a raising verb and there should be no place for *John* to land. From this, Grohmann is forced to conclude that *seem* in cases like (20) is not the usual raising verb *seem*, but one that has a position available in the Θ -domain after all. That is, a “raising verb” under a control predicate does have a θ -role to assign, unlike a raising verb in other contexts. To this I might add that (21) sounds to me about as bad as (19), satisfying a prediction that follows from Grohmann’s proposal: although *all the students* stops off in the lower SpecIP in (20) under *seem*, it does not stop off there in (21) under *seem*. However, like (19), its ungrammatical status would also follow from the traditional analysis of control with PRO.

(21) *The students try to seem all to know French.

In the last part of the chapter, Grohmann addresses in some detail the structure of small clauses within his framework, concluding that they are comprised of two prolific domains, a Θ -domain and a Φ -domain (despite being tenseless).

7. Phases and prolific domains

The last two chapters of the book return to the conceptual issues concerning the interaction between the syntactic computation and the interfaces. The discussion spells out and collects a number of loose ends left open in previous chapters; here, I will only mention a small part of this discussion, the highlights of the comparison between prolific domains and Chomsky’s (1999) “phases.” As with phases, prolific domains are “spelled out” (interpreted) one by one as the derivation proceeds from bottom of the structure to the top. The positions of the boundaries of prolific domains and phases are also similar, although the “IP” region constitutes a prolific domain whereas it does not constitute a phase. Prolific domains and phases are not notational variants (nor are they compatible theoretical constructs). Most importantly, the “edge” of a phase (a head and its specifier(s)) has a special status that has no correlate under the prolific domain framework, and phases are “opaque” in a way that prolific domains are not. The opacity of phases is the cause for successive-cyclic movement in a phase-based framework; for Grohmann, successive-cyclicity follows from the requirement that movement target the (nearest) higher prolific domain of the same type.

8. Closing commentary

Grohmann's discussion starts with Hornstein's (2001) treatment of control and anaphora as movement phenomena within a minimalist framework. Of course, Hornstein's movement-based approach to control is still controversial, and will likely remain so for some time. See, for example, the critique in Landau (2003), the upshot of which is that a movement approach to control is unable to state certain distinctions that are descriptively necessary and that can be stated under a more traditional account involving PRO and control. Given this context, it is worth considering how much of Grohmann's results rest on (at least the broad outlines of) Hornstein's approach ultimately panning out.

The existence or non-existence of PRO as an independent syntactic entity is not itself crucial to Grohmann's account, despite the fact that much of the inspiration for his proposal comes from the control-as-movement view. However, integrating a traditional account of control into Grohmann's framework would require rethinking certain aspects. For one, the θ -criterion must still be abandoned if Grohmann's account of reflexives is maintained, which would in turn require reconsideration of what motivates the inclusion of PRO in a structure. If PRO is ultimately necessary, some of Grohmann's discussion of successive cyclicity would also be undercut, given that no examples of movement from Θ -domain to Θ -domain would remain. Still, his analysis of contrastive left dislocation in German and possessor constructions in Germanic languages remains well constructed and insightful, regardless of the ultimate fate of PRO.

Overall, *Prolific Domains* provides an interesting discussion of our assumptions about locality, and an elegant analysis of left-dislocation constructions, set into a larger framework for syntactic movement. While it leaves several avenues unexplored, and certain details not fully fleshed out, it is a significant work containing interesting insights and a novel approach worked out in some detail, with serious attention to the data.

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