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SUCCESSIVE CYCLICITY UNDER (ANTI-)LOCAL CONSIDERATIONS

Kleanthes K. Grohmann

Abstract. Locality effects are typically understood to ensue when a dependency between two positions is too long, that is, as an upper bound on the distance an element may move (*Standard Locality*). This article explores some consequences of asking whether the opposite effect exists also, in terms of the *Anti-Locality Hypothesis*: movement must be local, but not too local. Anti-Locality is formulated through a tripartite split of clause structure into *Prolific Domains*, sub-domains of the derivation relevant for the operation Spell Out. The focus of the investigation will be generalized successive-cyclic movement: clause-internal movement from thematic to A- to A'-positions as well as movement across clause boundaries, thereby unifying the derivational steps involved in unrelated constructions. I argue that within a clause, an element can only ever move to the next higher Prolific Domain (*Intra-Clausal Movement Generalization*), while movement across clauses targets a position within the next higher Prolific Domain of the same type (*Inter-Clausal Movement Generalization*). These two generalizations are claimed to boil down to an interaction between Standard and Anti-Locality considerations. Consequently, we can observe a transparent symmetry in locality issues, which I take to be a desirable result.

1. Purpose and Overview

This study intends to revisit the role of successive-cyclic movement and its place in a framework that makes explicit use of derivational sub-domains, parts of the structure that are spelled out as the derivation proceeds. Since this iterative application of the operation Spell Out applies cyclically, one might expect that the cycles relevant for Spell Out also bear an impact on (successively) cyclic movement.

I pursue two goals. First, I want to present a theory that incorporates derivational sub-domains and inspect movement operations within and across these; this approach builds on the *Anti-Locality Hypothesis* (Grohmann 2000c, 2003c), formulated in terms of *Prolific Domains*.

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Second, I want to propose two generalizations over derivational dependencies: (i) the *Intra-Clausal Movement Generalization*, that clause-internal movement always targets the next higher Prolific Domain, and (ii) the *Inter-Clausal Movement Generalization*, that movement across clauses always targets a position within the same type of Prolific Domain in the next higher clause. The means to reach these goals consist of a refinement of locality notions and successive cyclicity, two concepts shown and explored further to be closely tied to each other.

The efforts pursued here are in line with recent research on the postulation of derivational sub-domains in the grammar (Chomsky 1998, Uriagereka 1999, Grohmann 2000c, Platzack 2001) and support the idea that "the requirement of successive cyclicity should not be tied to a property of intermediate heads […] but to a property of movement itself" (Bo‰koviç 2002:213).

2. Classifying Successive Cyclicity

This article takes a fresh look at successive-cyclic movement across clauses prompted by the Anti-Locality Hypothesis, which sets a lower bound on movement, and its implications for clause-internal movement operations. Focus of this paper are fairly traditional A- and A'-movement constructions, where I am particularly concerned with intermediate traces and consequently the operations involved to get an element from its base position (launching site) to its final destination (landing site), as in long-distance subject-to-subject raising or Wh-movement, for example:

(1) $[_{CP1}$ who do you think $[_{CP2}$ __ Mary said $[_{CP3}$ __ John kissed __]]]
(2) $[_{IP1}$ Mary seems $[_{IP2}$ __ to be likely $[_{IP3}$ __ to have been kissed __]]]

Informally speaking, '__' denotes the base and purported trace positions of the relevant moved element, *who* in (1) and *Mary* in (2). I will investigate the operations that yield successive-cyclic movement, which is understood in two ways throughout: first, movement within the lowest cyclic domain (here targeting the most deeply embedded [Spec,CP] and [Spec,IP], respectively) and second, successive movement to the next higher position of the same type, "generalized Comp-to-Comp movement."

My interest concerns two locality issues, but for non-standard reasons:

(L1) What is the relationship between the lowest '__' and the clause immediately containing it (henceforth *intra-clausal movement*)?
(L2) What is the relationship between *who/Mary* and the derivational history of the entire clause (henceforth *inter-clausal movement*)?

It is obvious that this conception of intra- and inter-clausal movement touches on the issue of successive cyclicity, a rather general condition on movement. In long-distance dependencies, such as (1) and (2), it denotes movement steps that apply within a cycle (which acts as an upper bound on the distance an element may move) in a successive manner: movement takes place within the most deeply embedded cycle first, then within each subsequently next higher cycle.[1] Taking CP as a cyclic node, Wh-movement may apply once per cycle. This essentially yields the derivation in (3) for long Wh-movement, where Wh-movement takes place once within each relevant cyclic domain (cf. (1)):

(3) $[_{CP1}$ who$_i$ do you think $[_{CP2}$ *t''*$_i$ Mary said $[_{CP3}$ *t'*$_i$ John kissed *t*]]]]

In the wake of *Barriers* (Chomsky 1986a), Subjacency was understood to hold among bounding nodes which create barriers for movement. For a well-formed dependency, movement should not span across a barrier. As (4) shows, the *Barriers*-framework has assumed movement of a simple Wh-phrase within a clause to pass through an intermediate position:

(4) $[_{CP}$ who$_i$ did $[_{IP}$ John I $[_{VP}$ *t'*$_i$ $[_{VP}$ kiss t_i]]]] (Chomsky 1986a:29)

The intermediate position *t'* is taken to be adjunction to the VP from which the Wh-phrase originated (*t*). Further issues aside, what is relevant is that in order to prohibit a locality violation, Wh-movement has to touch down along the way. As such, movement is strictly local. I will pick up this intuition in section 4 when I expand the notion of locality somewhat.

In this sense, movement is cyclic: it must take place before a cyclic node is reached, i.e. within a domain of sorts. Given that the notion of cyclic node has been abandoned in the Minimalist Program (MP; see Chomsky 1995 and subsequent work),[2] something else has to be said. The driving force behind movement in current terms is not a transformational rule or an operation that "moves anything anywhere anytime" (Move α), but grammatical licensing vis-à-vis feature checking. Movement proceeds by copying a syntactic object (a collection of feature bundles) and re-merging it. Merge extends the structure, building the clause bottom up, in contrast to the clausal skeleton of former times (such as Government-and-Binding Theory, henceforth GB). Strictly speaking, Extension led to an even more restrictive metric of the cycle, or as Svenonius (2001:4) puts it,

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[1] In lieu of a summary, see Freidin (1999), Svenonius (2001) for recent overviews of the history of the cycle, and Grohmann (2003c:chap. 7) with relevant to the current issue.

[2] At least until recently. Chomsky (1998) proposes derivational sub-domains called "phases" which, simplifying a bit, serve the same purpose: movement must apply within one phase, before it can target the next higher, with each phase being a proper sub-part of the derivation relevant for Spell Out. I will suggest something similar in spirit in section 3.1 and tie these sub-domains to the issue of successive cyclicity.

"[a]s for cyclicity, the noose tightened even more in the nineties, when the Extension Condition (Chomsky 1993:22) was stated as a condition on tree-building operations" (see also Freidin 1999).

One early minimalist implementation of intermediate touch-down is ϕ-feature checking (Chomsky 1993). Take (5) as a slight update of (4):[3]

(5) $[_{CP}$ who did $[_{IP}$ John I $[_{AgrOP}$ ~~who~~ AgrO $[_{vP}$ ~~John~~ *v* $[_{VP}$ kiss ~~who~~]]]]]

In this framework, Case and ϕ-features of the moved Wh-phrase must be checked prior to its final destination (Bo‰koviç 1997b, Grohmann 1997b): once in CP, they could not be checked otherwise. The effects of locality, and by extension (non-)cyclic movement, can thus be recast in terms of checking: if movement bypasses a potential checking position and if the relevant feature cannot be checked afterwards, movement may not skip it.

But movement can also apply successively via "escape hatches." The common assumption is that in these cases the relevant syntactic object undergoes cyclic movement, restricted by what we may call "Standard Locality" (whatever mechanism(s) accounts for locality restrictions[4]) and then moves successively through each intermediate escape hatch to its final destination; the escape hatch is [Spec,CP]. This yields the derivations with all intermediate positions (copies or traces) indicated in (1) and (3).

But there is another type of long-distance dependency between a moved constituent and its base position. Long A-dependencies, as witnessed in (subject-to-subject) raising are a case at hand. Fast-forwarding in time, under the Predicate-Internal Subject Hypothesis (see McCloskey 1997 for survey and references), a long A-dependency would involve the following derivational steps (dispensing from now on with bar-levels for *t*):

(6) $John_i$ seems [t_i to be eager [t_i to appear [t_i to t_i kiss Mary]]].

A common analysis is that the raised subject *John* moves from its thematic base position to the final landing site, matrix [Spec,IP], touching down at each intermediate [Spec,IP]-position. The argument for this type of successive-cyclic movement cannot be the same as for Wh-movement, as [Spec,IP] is not an escape hatch. It has thus to be motivated differently.

Ever since Chomsky's (1981) inception of the Extended Projection Principle (EPP)—originally formulated as a condition that every sentence have a subject—the reasoning has been that successive-cyclic A-

[3] Following standard practice, I mark traces, or rather copies, of moved material in ~~strikethrough~~. For expository purposes, I often employ the copy- and trace-notations side by side.

[4] Such as Relativized Minimality (Rizzi 1990), the Shortest Move Principle (Chomsky 1993) or the Minimal Link Condition (Chomsky 1995), to name but a few influential approaches to (Standard) Locality.

movement is driven by the EPP: it goes through each grammatical subject position [Spec,IP] to satisfy the EPP on each clause. Successive cyclicity in MP is thus conceived as "a property of intermediate heads, as in the feature-checking/filled specifier requirement approach" constructively criticized by Bo‰koviç (2002:213).[5]

Under this analysis we can also detect locality constraints: once such an intermediate subject position is filled, the raised subject cannot cross it. (7) portrays two well-known cases:

(7) a. *John$_i$ seems [t_i to be eager [it appears [t_i to t_i kiss Mary]]].
b. *John$_i$ seems [t_i to be eager [Bill appears [t_i to t_i kiss Mary]]].

Leaving aside theta-theoretic explanations of the ill-formedness, the filled subject position in (7b), *Bill*, and the instance of super-raising over expletive *it* in (7a) rule out successive-cyclic raising, just as they prohibit long movement of *John* for locality reasons.

An ontology of long-distance A-movement gets muddled by "subject-to-object raising" (Postal 1974), subsequently dubbed "exceptional Case-marking" (ECM; Chomsky 1981), a term I will employ for presentational purposes without any substantive attachment.

(8) a. John$_i$ was believed *(t_i)* [t_i to appear [t_i to *t* kiss Mary]].
b. John$_i$ seems [t_i to be believed *(t_i)* [t_i to appear [t_i to t_i kiss Mary]]].
c. Mary$_i$ seems [t_i to be believed *(t_i)* [t_i to have been kissed t_i]].

Depending on the analysis, the moved subject may raise to the object position of a passivized verb along the way (indicated by the parenthesized *t*'s in (8a-c), which are absent in an ECM-analysis), and it may even be a derived subject, originating as the object of a passivized verb, as in (8c). Nevertheless, it is assumed that all [Spec,IP]'s along the way are involved.

Lastly, I want to mention that long-distance dependencies can involve both multiple A- as well as A'-positions. Some relevant cases to compare are the following (disregarding the arising issue of vacuous movement, which I will ignore here):

(9) a. Who$_i$ t_i seems [t_i to be likely [t_i to have t_i kissed Mary]]?
b. Who$_i$ t_i seems [t_i to be likely [t_i to have been kissed t_i]]?
(10) a. Who$_i$ did Bill say [t_i t_i seems [t_i to be likely [t_i to have t_i kissed Mary]]]?
b. Who$_i$ did Bill say [t_i t_i seems [t_i to be likely [t_i to have been kissed

[5] Bo‰koviç's ultimate goal is to abandon the EPP, which I take to be a successful approach as I will argue throughout (see sections 4.3 and 4.6). For other attempts to eliminate the EPP from the theory of grammar, see Castillo, Drury & Grohmann 1997, 1999, Epstein & Seely 1999, 2003, Boeckx 2000a, Grohmann, Drury & Castillo 2000.

t_i]]]?

(11) a. Who$_i$ did Bill say [t_i (that) Jane thinks [t_i t_i seems [t_i to have t_i kissed Mary]]]?

b. Who$_i$ did Bill say [t_i (that) Jane thinks [t_i t_i seems [t_i to have been kissed t_i]]]?

(12) a. *Who$_i$ did Bill say [t_i (that) t_i seems [t_i (that) Jane wonders [t_i t_i has t_i kissed Mary]]]?

b. *Who$_i$ did Bill say [t_i (that) t_i seems [t_i (that) Jane wonders [t_i t_i has been kissed t_i]]]?

The long-distance moved Wh-phrase *who* may originate either as the external argument (a-cases) or as the internal argument of a passivized verb (b-cases). As long as A-movement precedes A'-movement, both types of displacement may apply: in (9), *who* successive-cyclically moves through all [Spec,IP]'s to matrix [Spec,CP] (depending on vacuous movement, via matrix [Spec,IP] as indicated here); in (10), it does so too, with the difference that it first moves to the highest embedded [Spec,CP] before moving successive-cyclically to matrix [Spec,CP] (parenthesized); in (11), both operations apply successive-cyclically. (12) involves improper movement, A- upon A'-movement, leading to ungrammaticality.

The generalizations seem to be that A-movement of a DP (subject-to-subject raising) applies successive-cyclically from its base-position to the matrix [Spec,IP] via each [Spec,IP] along the way (forced by the EPP). A'-movement (Wh-movement), on the other hand, targets matrix [Spec,CP] by touching down at each intermediate [Spec,CP] once one along the way is reached (escape hatch for locality reasons)—though prior to moving to the first [Spec,CP], it may move successive-cyclically to [Spec,IP] (EPP).

This state of affairs also answers the locality questions (L1) and (L2) posed above. My concern regards the status of the EPP on the one side and a larger inventory of relevant structures on the other. In the remainder of the paper, I will point out some problems with this view, outline an alternative take on the relevant locality issues, and challenge these well-formed generalizations.

Within MP, the generalized locality condition Relativized Minimality (Rizzi 1990) typically reduces to a condition on movement or attraction (of features or phrases; neither specification is important here). Among the potential candidates to capture Standard Locality are Shortest Move, the Minimal Link Condition, or any other condition that captures Relativized Minimality (cf. fn. 4; see Starke 2001, Boeckx 2002, Boeckx & Jeong 2002). Standard Locality is captured by a condition on the computation that puts an upper bound on the distance between two positions of a given dependency, bars skipping potential landing sites, and prohibits movement over potential intervenors. Moreover, displacement in general is subject to Extension, the requirement that each application of (revived) Generalized

Transformations and Move (Copy plus Merge) extend the phrase marker.

Two classic classes of cases that illustrate the role of locality conditions (understood as an upper bound on the distance between two positions in a given dependency) are the A'- and A-dependencies discussed above. Relevant cases include the prohibition of one Wh-phrase moving across another that originates in a higher position (Superiority) or the condition that movement cannot target a position if a potential position is skipped or already filled (as in super-raising). However these are to be formulated, a one-fell-swoop approach to dependencies spanning across clauses is ruled out these days by pretty much any account of Standard Locality: a long-moved Wh-phrase, for example, would skip a potential landing site (the escape hatch), move across an intervenor (if there is one), or plainly cross a distance between the base position and the final landing site that is too long (by some sort of cyclic domain). A similar story can be applied to long A-movement (EPP), and presumably something along these lines would also capture island violations (not of concern here).

A complication for this cut arises under a movement analysis of control (see Bowers 1973 for original and O'Neil 1995, Hornstein 1999, Manzini & Roussou 2000, and others for more recent discussion). For starters, consider a classic control structure:

(13) a. John wants to kiss Mary.
b. $[_{IP}$ John $[_{vP}$ wants $[_{IP}$ PRO_i to $[_{vP}$ (PRO/t_i) kiss Mary]]]]

Taking minimalist desiderata seriously, there should be no a priori ban on movement into θ-positions, since the status of the Theta Criterion is anything but clear.[6] In fact, as a range of authors have repeatedly argued, the Theta Criterion (as formulated in Chomsky 1981 and refined in Chomsky 1986b) simply cannot hold and movement into θ-positions *must* be possible. There is a rapidly growing body of literature, starting with Bo‰koviç (1994).[7]

My interest in constructions like (13) lies in its relevance to successive-

[6] What I take to be one core desideratum of any minimalist approach to linguistic theory is the guiding objective that all conditions on the computation follow from Bare Output Conditions—by "virtual conceptual necessity" (Chomsky 1995). This includes the formation of dependencies, whether created by movement or construal. A strict adherence to this objective forces us to reconsider, if not drop, certain well-established principles, conditions, axioms, and so on from earlier stages of the Principles and Parameters Theory and derive their effects in some other way. Hornstein (2001:4-7) refers to such a research program as one driven by concerns of *methodological economy* (see also Epstein & Hornstein 1999, and the more detailed picture of "rigorous minimalism" painted in chapter 2 of Grohmann 2003c). I consider the present contribution as a further step in the direction of methodological economy.

[7] This is not the place to make a case for movement into θ-positions. Following many arguments raised in the literature, I take it a conceptual desideratum of a minimalist approach. For presentation and references, see e.g. Hornstein (2001), Grohmann (2003c).

cyclic movement. If the matrix "control" subject *John* is indeed generated as external argument of the embedded verb *kiss* (replacing PRO/*t*) and if the double-thematic status of the subject can be explained by having checked two thematic roles in the course of the derivation (from *kiss* and *want*), what are its movement steps involved? Basically, I am asking the same questions (L1) and (L2) from above, rephrased here for convenience:

(L1') What is the relationship between PRO/*t* and the clause immediately containing it?
(L2') What is the relationship between *John* and the derivational history of the entire clause?

As a first stab, one would answer (L1') in the usual sense: PRO is base-generated as external argument of the embedded verb and moves to embedded [Spec,IP] for EPP-reasons. In a movement analysis, replace PRO by *John*. One part of (L2') also seems straightforward: *John* moves from the embedded to the matrix clause. But the devil lies in the details.

The complication arises from a combination of the Predicate-Internal Subject Hypothesis and the EPP, forcing an intermediate movement step:

(14) [$_{IP}$ John I [$_{vP}$ ~~John~~ wants [$_{IP}$ ~~John~~ to [$_{vP}$ ~~John~~ kiss Mary]]]]

Such an analysis seems to imply that the relevant movement steps involve (i) the thematic base position, embedded [Spec,*v*P]; (ii) the first intermediate position, embedded (non-finite) [Spec,IP]; (iii) the matrix thematic position, [Spec,*v*P]; and (iv) the matrix Case/agreement position, [Spec,IP]. At step (i), *John* receives the first θ-role (or checks the first θ-feature) and movement step (ii) is driven by the EPP-requirement. Step (iii) must be motivated by the need to receive/check an additional θ-role/feature, and step (iv) finally satisfies the EPP and enables *John* to check its Case/agreement features.

My quarrels with this line of reasoning concern the purported movement chain involving the specifier positions of […*v*P…IP…*v*P…], and how this combination of derivational steps could possibly fit into an ontology of successive-cyclic movement. The relevance of control structures becomes even more evident when we consider iterative control relations, where '*θ*' signals all required θ-positions, [Spec,*v*P], and '*?*' all purported EPP-positions, [Spec,IP]:

(15) John *θ* wants *?* to *θ* hope *?* to *θ* try *?* to *θ* kiss Mary.

I will address the relevance of such cases in the following discussion, especially in section 4, and offer an alternative derivational history.

Since one defined goal of this study is to explore the prospects of

capturing all instances of movement across clause boundaries, a first generalization of successive-cyclic movement could be that successive-cyclic A-movement takes place from one [Spec,IP] to each higher [Spec,IP] and that successive-cyclic A'-movement involves [Spec,CP] and subsequent [Spec,CP] positions only.

Pending further discussion of control structures for the time being, we are left wondering how movement into thematic positions—or Θ-movement[8]—across clause boundaries might fit in. There might be a number of possibilities. What I will be arguing for is that successive-cyclic Θ-movement starts out at [Spec,*v*P] and targets the next higher [Spec,*v*P].

In fact, I will pursue a cleaner ontology of successive-cyclic movement along the following generalizations (to be slightly modified):

(G1) Successive-cyclic A'-movement: [Spec,CP] to [Spec,CP]
(G2) Successive-cyclic A-movement: [Spec,IP] to [Spec,IP]
(G3) Successive-cyclic Θ-movement: [Spec,*v*P] to [Spec,*v*P]

Along the way, I will have to address the question what to do with the embedded non-finite [Spec,IP]-position, in particular how raising and control differ, and what the status of the EPP is. The goal of this paper is to defend the ontology of roughly (G1)-(G3) by the following means:

(D1) I will deny the obligatory need to move through non-finite [Spec,IP].
(D2) I will ensure such movement to apply when needed for convergence.
(D3) I will define convergence needs through alternative type of locality.
(D4) I will appeal to the Anti-Locality Hypothesis for these constructions.

This ontology is the first step towards getting a grip on movement across clause boundaries (inter-clausal), as it applies first and foremost to clause-internal operations (intra-clausal). As such, the next section serves as my stepping stone to reformulate aspects of locality that allow me to address (D1)-(D4) appropriately. Since I take locality to be an a priori restriction on movement (regardless of how it is to be accounted for in detail), I will first subject locality issues within a single clause to scrutiny. I will do so from both perspectives, the traditional upper-bound limitation on the distance an element can move and an anti-local, lower-bound one.

3. The Anti-Locality Hypothesis and Intra-Clausal Movement

Locality has been a pervasive topic of discussion in generative research for

[8] To clarify my notational usage, from now on lower case θ signals thematic roles only, while upper case Θ receives a technical interpretation (in terms of context information as described in section 3.1 below).

a long time. As such, it represents a remarkably successful achievement in syntactic research. Locality typically denotes the fact that dependencies created over two positions may not involve too long a distance. This is the "locality-qua-upper-bound" condition on dependencies; call this *Standard Locality*. What I will do in the following is subject the formation of dependencies—derived by movement as well as (apparently) construal—to the hypothesis that there is also a locality condition formulated in terms of a lower bound; call this *Anti-Locality*. I will then present some natural implications for clause-internal or intra-clausal movement dependencies following from a combination of these two conceptions of locality.

3.1 Movement within Prolific Domains

To pave the path for the proposal regarding an (anti-)local account of successive cyclicity, I will summarize in this section the Anti-Locality framework from earlier work (Grohmann 2000c, and more recently, 2003a, 2003c), encapsulated by the Anti-Locality Hypothesis, which is exactly that: a hypothesis that explores a reverse locality effect, namely that in order to form a legitimate dependency, two positions must not only conform to an upper bound on locality (be not too far apart), but also a lower bound (be not too close). In a preliminary form, the Anti-Locality Hypothesis could be articulated as "Movement must not be too local" (Grohmann 2003a:144). Let me phrase it for now as (16):

(16) *Anti-Locality Hypothesis* (to be refined)
Movement within a Prolific Domain is ruled out.

At the heart of the Anti-Locality framework lies a conception of clause structure that builds on the long-standing intuition that clauses encapsulate three types of information: thematic relations between predicates and arguments (argument/theta structure), agreement relations between verbal morphology and nominal marking (event/proposition), and discourse relations between certain linguistic objects and the context/truth semantics of the proposition (information structure); I take notions such as topic and focus to be representative of the last group of relations, but also the licensing of operators, and Case-marking to fall into the second category. This somewhat simplified conception is traditionally encoded into phrase structure by VP (*v*P), the domain of thematic relations on the clausal level, S (IP), ranging over agreement properties of the clause (taking 'agreement' quite liberally), and S'/Comp (CP), the area where discourse-relevant material and operators of a clause are licensed. In other words, the tripartition envisioned here is reminiscent of earlier conceptions of the clause (cf. Chomsky 1986a). Employing current terminology, we are thus

dealing with a clausal skeleton along the lines expressed in (17):

(17) $[_{CP} \ldots C \ldots [_{IP} \ldots I \ldots [_{vP} \ldots v \ldots]]]$

The well-known proliferation of functional projections (Cinque 2002, Rizzi 2003b, Belletti 2004) and the tripartition assumed in Platzack 2001 are also relevant in this context. Defenders of this proliferation provide theoretical and empirical evidence for a finer architecture of each of these clausal parts or sub-domains. This includes more room in VP to host, among others, the light verb *v*, whose specifier functions as the predicate-internal subject position. Regarding IP, additional agreement projections have been proposed to license, next to Case and ϕ-features of the subject (AgrSP and/or TP), tight relations between verbal morphology and objects (AgrOP), aspect (AspP), participles (PartP), and so on. And the split-CP approach (Rizzi 1997) aims to encode the notions of topics and focus structurally (TopP and FocP), but also to express a clause's illocutionary force to the outside, its finiteness relation holding of C and I (FocP and FinP in Rizzi's terms), and operator positions (such as for Wh-phrases).

But at the end of the day, we are dealing with a clausal tripartition into well-grouped domains. This is also Platzack's appraisal, who explicitly proposes a clausal tripartition along the lines sketched here. What Platzack does not do, however, is assign a dedicated role to these three domains of clausal architecture that would have an impact on syntactic computations as suggested below. In other words, my way of reasoning is the following: if we have a clear intuitive cut of clausal derivation into three well-defined domains (of the form just laid out) and if we are entertaining a notion of derivational sub-domains, which might play a role in cyclic evaluation (as hinted at in the previous section), we might be able to combine the two.

This is what I have argued for elsewhere (works cited above), where I call each of the three intuitive parts of the clause a *Prolific Domain*, which is characterized along the following lines. The part or domain relevant to compute movement locally corresponds to a domain of shared contextual information. A Prolific Domain may contain thematic context (Θ-Domain), agreement context (Φ-Domain), or discourse context (Ω-Domain). In particular, each Prolific Domain serves as a derivational sub-part relevant for Spell Out, an operation that may apply more than once—namely, every time it has to, up to convergence.

The counterpart to (17) in terms of Prolific Domains (abbreviated to ΠΔ in structural representations) would thus look as follows:

(18) $[_{\Omega\Delta} \ldots C \ldots [_{\Phi\Delta} \ldots I \ldots [_{\Theta\Delta} \ldots v \ldots]]]$

A simple view of the interaction between the computational system of human language (C_{HL}) and the interfaces (qua their intermediaries LF and PF) maps all information accumulated in the course of the derivation and

maps it onto the interface components LF and PF at a particular point in the derivation. This point is referred to as the application of the operation Spell Out, the point of moving from overt to covert syntax.

In the original model of Chomsky 1995, Spell Out is a unique operation that targets the derivation at one point—roughly the same that was previously held to constitute the boundary of S-structure, but without forcing any conditions on the derivation at that point. In order to keep the complexity of C_{HL} as simple as possible, it applies only once—apparently this is the most economical way. However, if economy is really taken to mean "up to convergence," Spell Out should apply more than once if it can be shown that some derivation would not converge had it not applied (see Uriagereka 1997, 1998:322, 1999:256ff.). Uriagereka does this suggesting that Spell Out should be treated like any other operation of C_{HL}: apply as often as needed for convergence (cf. Bresnan 1971 for early suggestions).

This said, the question arises how often Spell Out should apply. The answer Uriagereka gives is "once per command unit," basically, every time a left branch is formed. Chomsky (1998, 1999, 2001) picks up on the idea of Multiple Spell Out and partitions the clause into "phases," parts of the derivation that apparently correspond to "propositional objects" which converge (supposedly strong *v* and C), where convergence can be taken to denote an application of Spell Out, a point in the derivation at which syntactic information is sent to the interfaces. I adopt neither definition of when Spell Out must apply, but formulate each derivational cycle in terms of Prolific Domains: once a Prolific Domain is complete, it spells out (see Grohmann 2000c:chap. 6 for details, also Menuzzi 2002).

Beyond mere (new) terminology, Anti-Locality offers a novel way to formalize the intuitive tripartition of the clause. If movement within a Prolific Domain is to be ruled out, as the Anti-Locality Hypothesis of (16) suggests, this ban should follow from Bare Output Conditions, or the argument to simplify our inventory of rules goes down the drain (fn. 6). Next, I will revisit some empirical benefits of this conception of syntactic derivations and define Anti-Locality in terms of the Condition on Domain Exclusivity, which does follow from Bare Output Conditions.

Structures that Anti-Locality is concerned with are the hypothetical a-expressions in (19)-(21) and their potential/intended interpretation in the corresponding b-examples. The objective of the Condition on Domain Exclusivity in (22) below is to rule them out in a unified way, that is, each instance of ill-formedness is the result of the same type of derivational step, anti-local movement, which results in a crash, exemplified by the relevant derivational steps sketched in the c-structures (where '#' indicates syntactic ill-formedness, i.e. an illegitimate step in the derivation).

(19) a. *John likes.
b. John likes himself.

c. #[$_{vP}$ John *v* [$_{VP}$ likes ~~John~~]]

(20) a. *Him softly kissed her.
b. He softly kissed her.
c. #[$_{IP}$ him I [$_{AgrOP}$ ~~him~~ AgrO [$_{vP}$ softly [$_{vP}$ ~~him~~ *v* [$_{VP}$ kissed her]]]]]

(21) a. *Who, Mary detests?
b. It is who, and who does Mary detest?
c. #[$_{TopP}$ who Top [$_{FocP}$ ~~who~~ Foc [$_{IP}$ Mary detests … (~~who~~)]]]

Each of these examples illustrates one of the three Prolific Domains: (19) the Θ-Domain, covering thematic argument positions, (20) the Φ-Domain, containing Case/agreement positions, and (21) the Ω-Domain, including positions for topic and focus—to name just a few types of positions and their place of belonging in this framework.[9] The question I want to pose boils down to this: why may an argument not move from one thematic position to another (and derive a reflexive interpretation, for example), or why may an element not move from one Case agreement position to another (possibly checking two Case features, with another argument possibly receiving default Case), or why may a fronted Wh-phrase not serve simultaneously as both a topic and a focus (the Wh-part)?

These questions are illustrated in (19)-(21) by the b- and c-examples. I address them in considerable detail elsewhere; my current goal is slightly different, and I will thus move on to the Condition on Domain Exclusivity and the relevance of Anti-Locality to the main issue of this article: what role, if any, do concerns regarding Standard and Anti-Locality, as just laid out, play in the derivation of successive cyclicity? The one and only condition that I propose, needed to account for all Anti-Locality effects, is the Condition on Domain Exclusivity (henceforth, CDE):[10]

(22) *Condition on Domain Exclusivity*
An object O in a phrase marker must have an exclusive occurrence in each Prolific Domain ΠΔ, unless duplicity yields a drastic effect on the output, i.e. a different realization of O in that ΠΔ at PF.

The finer details of the CDE are presented in Grohmann 2000c (especially chapters 3 and 6, revised in Grohmann 2003c). For current purposes, it suffices to understand the CDE as a requirement for a unique PF-matrix of an element (its phonetic realization) within a given Prolific Domain; LF and PF are taken to be interface components, rather than levels, within a dynamic conception of syntactic derivation (see also Uriagereka 2002). As

[9] One can take this place of belonging to be anchored in the lexicon. In Grohmann 2000c (pp. 284-249, see also Grohmann 2003a:148-149), I identify |Θ|, |Φ| and |Ω| as contextual indices. Under this view, functional heads are endowed with a specification for which contextual index they bear (i.e. $v_{|\Theta|}$, $I_{|\Phi|}$, $C_{|\Omega|}$, and so on).

[10] The CDE is defined in slightly different terms in Grohmann 2000c:61, but for present purposes, the current adoption seems to work just fine.

a result, the Anti-Locality Hypothesis ("Don't move within a Prolific Domain") can now be recast as a PF-condition—and as such follows, as desired, directly from Bare Output Conditions—namely, the CDE.

Within the copy theory of movement (Chomsky 1993, 1995, Nunes 1995, 2003, Hornstein 2001), multiple occurrences of an object in the phrase marker refer to non-distinct copies: the dependency D = {XP, ~~XP~~} contains two non-distinct copies of XP, one of which needs to be deleted (for linearization[11]). In other words, the CDE concerns maximal phrases only; by definition, head movement creates a new object (via adjunction), and morphemes, pronounced or not (the "real" input of functional heads), obligatorily change the PF-matrix of the element that moves/adjoins to them.[12] Thus, Domain-internal head movement satisfies the CDE trivially.

This understanding of the computation makes one simple prediction: if a dependency between two positions within the same Prolific Domain were to involve different PF-matrices, the CDE should be satisfied. Following much recent discussion in the literature, this prediction seems indeed to be borne out.

Anti-Locality (qua CDE) is not an absolute ban on too-local movement, but rather a restriction that no dependency may contain two non-distinct copies within a too-local environment (one and the same Prolific Domain). Dependencies should be well-formed and involve two identical elements whose PF-matrices are different. A rigid investigation of this dictum can be comfortably couched within a strictly derivational view of C_{HL}, very much in the spirit of Hornstein's (2001) project: to simplify the inventory of rules and conditions on the grammar, recasting as much as possible of traditional rules of construal in terms of movement dependencies.

Hornstein views (certain) pronouns as grammatical formatives, rather than fully lexical expressions (see also Aoun & Benmamoun 1998, Aoun,

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[11] This is the approach taken by Nunes (1995, 1999, 2003), who argues that the Linearization Correspondence Axiom (LCA) of Kayne 1994 applies also to traces/copies, as opposed to Kayne's proposal. There is some variance on the role and application of the LCA: Moro (2000) argues that the LCA applies only at the articulatory-perceptual interface level PF, rather than all levels of representations; and after narrowing down the applicability of the LCA in 1995, Chomsky (1998) abandons it altogether.

[12] For purposes of illustration, I assume a traditional view of head movement. This means that typically, V moves to *v*, which then moves to AgrO and I, and finally into the CP-layer (depending on the finer structure of the clause). Naturally, (many of) these movements take place within one and the same Prolific Domain. Crucially, however, they do not conflict with the CDE. I refer to the discussion in Grohmann 2003c, where I not only address how head movement is handled in this system in detail, but also show that Anti-Locality pertains to maximal phrases only, for principled reasons.

In this context it is also worth noting that ever since Chomsky's (1995) claim that head movement is not part of syntax proper, but a PF-operation (see e.g. Chomsky 1998, Boeckx & Stjepanoviç 2001, Parrot 2001, but also Zwart 2001a for an opposing reaction), there has been cast some doubt on the traditional head movement-qua-adjunction view. Note that if the controversy raised by these authors turns out to be right—and head movement does not exist—the issue of what to do with heads in an Anti-Locality framework does not even arise.

Choueiri & Hornstein 2001). With this understanding, Domain-internal dependencies involving two copies of an XP with a different PF-matrix assigned to each can indeed be found: as grammatical formatives, these pronouns are derived; given a trigger, they are inserted into the derivation. The trigger, I suggest, is the CDE. Elsewhere I present a number of illustrative examples for each Prolific Domain in the clause (as well as a preliminary extension to the nominal layer in Grohmann & Haegeman 2002, Grohmann 2003c:chap. 6; see also Ticio 2003).

The arguably most convincing structure is the so-called contrastive left dislocation construction found in German, concerning the relation between a left-peripheral XP and a coreferent resumptive pronoun (RP) in some, but not other constructions—namely, when the construction exhibits clear diagnostics for movement. (23) is one such instance, which illustrates the availability of a bound variable reading between a quantified subject and a pronoun contained in the left-dislocated constituent (where left-dislocated constituent and RP are in an anti-local relationship, as shown in (23b): CP and TopP are part of the Ω-Domain). (The coreference is indicated by italics and the bound variable reading in this case by subscription.)

(23) a. [*Seinen*$_i$ *Vater*], *den* mag jeder$_i$.
his-ACC father RP-ACC likes everyone
'His father, everyone likes [him].'
b. [$_{CP}$ seinen Vater C [$_{TopP}$ den mag-Top [$_{IP}$ jeder I…]]]

This type of left dislocation, and its differences from hanging topics (of the sort they exist in English), have been known, debated and analyzed for a long time (see the papers in Anagnostopoulou, van Riemsdijk & Zwarts 1997, but also Grohmann 1997a, 2000a, 2000b, and references cited). Most importantly, left dislocation does not display Weak Crossover or Condition A effects, but is sensitive to Condition C. Moreover, the two differ with respect to other consequences of reconstruction: whether they allow for the possibility of left-dislocating idiom chunks, whether they may appear in embedded contexts, or whether they allow multiple XPs.

Analytically, these differences can be captured quite easily: contrastive left dislocation involves movement of the left-dislocated element (XP) through two Comp-positions—i.e. movement within the Ω-Domain (see (24) below). As with head movement, such a step is only legitimate if the two copies are made distinct; by the CDE, the distinctness must be one in terms of PF-properties. And just as heads move via adjunction, thus creating a different PF-matrix, one would expect that if the left-dislocated XP moved within a Prolific Domain in contrastive left dislocation, this movement should result in a different PF-matrix of one of the two copies. Following the standard argument that in cases of doubt it is the lower copy that deletes (it has a less complete set of checked features), in these cases it

is the lower copy that changes its PF-matrix. It is in this sense that I take RP as the spelled out copy, resulting in a dependency that conforms to the CDE.[13] The relevant derivational step to yield (23a) is the following (Copy Spell Out indicated by '➲'):

(24) [$_{CP}$ seinen Vater C [$_{TopP}$ ~~seinen Vater~~ ➲ den mag-Top [$_{IP}$ jeder I…]]]

The left-dislocated is topicalized (movement to [Spec,TopP]) prior to its final destination (the most peripheral position [Spec,CP], or [Spec,ForceP] à la Rizzi 1997).[14] But this movement step takes place within the same Prolific Domain, the discourse-related Ω-Domain. At Spell Out, the structure is sent to PF and along the way, Copy Spell Out applies to the lower copy, assigning it a PF-matrix in the guise of a pronominal.

Under the same assumption—that certain pronominal elements are grammatical formatives and that dependencies between two positions should be derived by movement wherever possible (Hornstein 2001) — another application of Copy Spell Out can be argued for local anaphors, where reflexives, for example, are the result of spelling out a copy that would otherwise violate the CDE. In other words, under such a view, local anaphors would be introduced in the course of the derivation (see also Lees & Klima 1963, Lidz & Idsardi 1998, Hornstein 2001).

Parallel to (23) then, local anaphors could be derived just as RPs in certain left dislocation constructions, via Copy Spell Out. Recall the discussion from (19) above, for example, alongside the proposed analysis in line with the Anti-Locality Hypothesis:

(25) a. John likes himself.
b. [$_{IP}$ John I [$_{vP}$ ~~John~~ *v* [$_{VP}$ likes-V ~~John~~ ➲ himself]]]

Given that movement from one Θ- to another Θ-position need not be ruled out by additional stipulations, the CDE forces Copy Spell Out of the lower

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[13] The idea that RPs result from spelling out a trace/copy is not new. Recently, Pesetsky (1998, 2000) revived Perlmutter's (1972) Shadow Pronoun Hypothesis in very similar terms (see also Boeckx 2001, 2003 for a detailed discussion and further references).

[14] I address topicalization very briefly in section 4.2. Let me note at this point, that such a two-step derivation within Comp is indeed justified. The first step, movement to [Spec,TopP], can be independently verified with simple topic structures:

(i) Seinen Vater mag jeder.
his.ACC father likes everyone
'His father, everyone likes.'

Since topicalization and left dislocation share a number of information-structure relevant properties, it is not far fetched to bestow this similarity with a syntactic reflex. The idea is that left dislocation is "topicalization plus something else." The topicalization-part stems form movement to [Spec,TopP], the something-else part from subsequent movement to the periphery. Many of the works on left dislocation mentioned above and cited there elaborate on this issue.

occurrence of *John*. Compare this with the structure in (19c): if Copy Spell Out did not apply, the structure would violate the CDE and thus be illicit. All things being equal, I take this approach on the right track and assume this derivational analysis in the remainder of the study, exploring in depth some of its consequences.

Let me briefly address the question what Copy Spell Out could actually be. Intuitively, it seems to rescue an otherwise illicit step in the derivation. Standard deletion of the lower copy within an anti-local environment (the same Prolific Domain) is ruled out by the CDE, but if the lower copy receives a different PF-matrix, the CDE is satisfied. Copy Spell Out does not delete, but spell out (a subset of the feature bundle of) the lower copy, and by doing so assigns it a different PF-matrix in the guise of a grammatical formative—namely, a pronominal element. A critic might object (as do Boeckx 2001:47 and Kayne 2002:134, for example) that inserting a pronoun for a copy would violate the Inclusiveness Condition, as a symbol of sorts that was not part of the initial array/numeration gets introduced in the course of the derivation. However, I am not forced to fall into this trap; no idle symbols are added to the *syntactic* computation.[15] Consider the following. Recall that the CDE is a PF-condition. Little that we know about PF, it is arguably the component of the grammar that takes an expression and assigns it a pronunciation, which can be zero. The simplest way to imagine how PF works is to assume that it takes specifications provided by the feature bundle of an expression and churns out some PF-readable form (what I call the PF-matrix). Copy Spell Out is not an adding operation, but a modification process, very much in line with a Last Resort account of *do*-support (Arnold 1995).[16]

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[15] This is particularly apparent if Copy Spell Out is understood in terms of post-syntactic insertion of PF-material, as for instance in Distributed Morphology (Halle & Marantz 1993, Noyer 1997, Embick & Noyer 2001). As one reviewer remarks, Inclusiveness might not be a problem to begin with if Chomsky (1995) is correct in assuming that it does not play a role at PF, which sounds reasonable to me.

But Boeckx and Kayne also criticize that spelling out a copy/trace would be a counter-cyclic operation, presumably under the assumption that some element gets inserted into the syntax once later operations have applied, including movement of the element whose copy gets introduced in. This argument does not affect my proposal either as the insertion of the grammatical formative takes strictly place within the same cycle.

[16] There are arguably a number of ways to cash out Copy Spell Out more concretely. For example, on a separate, post-syntactic view of morphology (such as Distributed Morphology of Halle & Marantz 1993 and others), there is no need to specify the PF-matrix of an object in the phrase marker any further; the relevant instructions to PF are inserted after movement (with the establishment of a Prolific Domain, in the current terminology). On this view, my suggestion that Copy Spell Out "spell[s] out (a subset of the feature bundle of) the lower copy" would have to be modified.

If, on the other hand, we were to explore the phonetic impact of (what drives) Copy Spell Out further, we might want to look at phonology proper and independently established conditions, such as the Obligatory Contour Principle (Leben 1973). For a recent adaptation into syntax, see Richards 2002, who suggests a "syntactic OCP" in terms of distinctness, a line of reasoning I currently pursue in research on resumption. I

From the perspective of Distributed Morphology (Halle & Marantz 1993, Noyer 1997, Embick & Noyer 2001), the PF-side confers upon C_{HL} the instructions what to pronounce and how to do so. Rather than assuming a specific operation Delete, as Chomsky (1995) or Nunes (1995) do, we could simply posit that PF spells out one copy within a dependency, period (see also Hornstein 2001:80-82, who phrases this in terms of deterministic deletion). The CDE in (22) dictates PF-visibility or relevance of one copy only, allowing an additional copy or occurrence only when it has a "drastic effect on the output"—in other words, PF assigns a PF-matrix to one element and may assign a different PF-matrix to an additional copy in the guise of a grammatical formative (Copy Spell Out). I am aware that much more needs to be said concerning the exact interaction between the syntactic computation and PF on the one hand and the determination when Copy Spell Out may apply and when not on the other.[17] Interesting as these issues are, a closer inspection would take me too far afield from the discussion of locality concerns for successive cyclicity (see Grohmann 2000c:chap. 6 for some ideas). For the remainder of this article I simply assume—admittedly, non-trivially and not quite innocently—that Copy Spell Out is a well-defined operation that takes place under well-defined circumstances and, most importantly, conforms to the CDE.

From the discussion sketched here, one can take home that pronominal elements that surface as spelled out copies are taken to be generalized resumptive elements which "rescue" an otherwise illegitimate dependency. In more general terms, I want to formulate the ban on Domain-internal movement along the following lines:

(26) *Ban on ΠΔ-internal movement*
*$[_{\alpha\Delta}$ XP … ~~XP~~], unless XP ➲ Y, where $[PF]_{XP} \neq [PF]_{Y}$

If Copy Spell Out creates resumptives of sorts, then RPs seem to appear in two diametrically opposite environments. RPs appear in a dependency if the two related positions would otherwise be too far from each other to allow movement (viz. some form of the Copy- Merge-and-Delete operation Move), such as island environments or resumption strategies in relative clause structures in many languages; this is standard resumption. Alternatively, RPs appear when a dependency would be too close, as suggested here, i.e. resumption qua Copy Spell Out. In other words, resumption kicks in when a dependency would otherwise violate locality.

We are now at a point at which we can formalize the ban on anti-local

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leave these, and other, suggestions as they are, for future considerations.

[17] For example, Cedric Boeckx (p.c.) notes that under a literal implementation of Distributed Morphology, where all PF-features are inserted post-syntactically, the question arises how pied-piping, generally understood to act on PF-features *in* the syntax, could be handled.

movement somewhat. From now on, (27) will denote the Anti-Locality Hypothesis as understood here, replacing the original, tentative formulation from (16):

(27) *Anti-Locality Hypothesis*
Phrasal movement within a given Prolific Domain is ruled out, unless it is followed by Copy Spell Out.

With respect to the task of exploring successive-cyclic movement set initially, we can now answer one part of (L1) from section 2: the relation between the lowest occurrence or copy of an element and the clause containing it can*not* be one that contains two occurrences within one Prolific Domain—unless it is followed by the operation Copy Spell Out on the way to PF. Looking closer at Prolific Domains, it appears that they can now count as revisions of the term cyclic domain: apply all syntactic operations (Merge, Move) within a given Prolific Domain and then move to the next Prolific Domain. I will complete my answer to (L1) next.

3.2 Movement across Prolific Domains

The Anti-Locality Hypothesis bans movement of a maximal phrase XP within a given Prolific Domain, unless the lower copy of XP receives a different PF-matrix. This allows me to refrain from categorically excluding certain types from movement, such as movement into Θ-positions. Movement is unconstrained with respect to the *type* of positions it involves, but it is constrained with respect to the *locality* of the positions it involves. Such a formulation suggests that Anti-Locality, a lower bound on the distance between two positions in a given dependency, and Standard Locality, an upper bound, need not be mutually exclusive; they can be combined to work together. One obvious domain of application is movement that crosses a Prolific Domain, where, I suggest in terms of a generalization, movement always targets a position within the next higher Prolific Domain. Let us scrutinize this alleged generalization.

As shown in (4), repeated as (28), the *Barriers*-framework had to assume movement of a simple Wh-phrase within a clause to pass through an intermediate position:

(28) $[_{CP}$ who$_i$ did $[_{IP}$ John I $[_{VP}$ t_i $[_{VP}$ kiss $t_i]]]]$

With respect to the present matter, there was an intuition that unless the Wh-object touches down prior to reaching its landing site, the distance between the VP-internal thematic object position and the Comp-internal canonical Wh-position is too far. Replace the former with “some position

within the Θ-Domain" and the latter with "some position within the Ω-Domain," and the result is something very similar to what I just suggested: in order for XP to move from a Θ-Domain position to an Ω-Domain position, XP must pass through some position along the way.

A natural position for intermediate touch-down would be one within the Φ-Domain. (29) illustrates, showing only the relevant abstract structure:

(29) $[_{\Omega\Delta}$ who did $[_{\Phi\Delta}$ John ~~who~~ $[_{\Theta\Delta}$ kiss ~~who~~]]]

The *Barriers*-account in terms of VP-adjunction—or for that matter, the phase-based line of argumentation in Chomsky 1998, 1999—might be suspect for two reasons. First, it is not at all clear that adjunction to VP, or rather *v*P (i.e. whatever closes off the Θ-Domain), could be interpreted as displacement into a different Prolific Domain. One would have to argue that the specifier of *v*P is part of the Θ-Domain, but additional material hanging up there is not. The argument that certain adverbs are adjoined to *v*P comes about because they modify the event expressed by the verb (phrase), not some inflectional material. Thus some adverbs, adjoined to VP or *v*P, are certainly part of the Θ-Domain—how could one then make the adjoined Wh-phrase be part of a higher Prolific Domain? Second, it is not at all clear that movement of XP should be allowed to adjoin. I discuss the second, and presumably more controversial, point at length in Grohmann 2000c (chap. 3, also 2003b, 2003c:chap. 2) and for present purposes simply ignore multiple specifiers or adjunction-movement.

More relevant to the current issue is that (at least one version of) MP tries to capture the intuition that Wh-phrases move through an intermediate position before reaching their [Wh]-marked landing site as part of Checking Theory. Just as subjects have to dislocate into Infl (the Φ-Domain, presumably [Spec,IP]) to check Case and/or agreement, objects have to do so too. Arguably, what I call the Φ-Domain contains a projection for accusative case into whose specifier the object moves for checking its Case feature. (This is the position labeled AgrOP above.) In early minimalism, the relevant derivation was the following:

(30) $[_{CP}$ who did $[_{IP}$ John I $[_{AgrOP}$ ~~who~~ AgrO $[_{vP}$ ~~John~~ *v* $[_{VP}$ kiss ~~who~~]]]]]

This derivation is remarkably similar to the one I suggest in a Domain-driven framework, namely (29). In the MP-version of Chomsky 1993 (and, until section 4.10, of Chomsky 1995 in general) the intermediate touch-down is taken to be forced by Checking Theory.[18] As a DP, *who* has a Case feature [Acc] which needs to be checked overtly or covertly. If *who*

[18] Bo‰koviç (1997b) and Grohmann (1997b) argue for the same type of derivation for multiple Wh-questions in languages that do not seem to show Superiority effects, as a means to account for this apparent violation.

moves in the overt component to a position higher than the Case-checking position [Spec,AgrOP], it must pass through [Spec,AgrOP] and check [Acc] overtly. If *who* stays in situ (*Which man kissed who?*), this is done covertly, at least through feature-movement. But once in [Spec,CP], [Acc] cannot be checked at LF, unless we reintroduce a lowering operation.

I assume the same derivational steps for topicalization (see the brief presentation of contrastive left dislocation around (23)-(24) above):

(31) a. His father, John really likes.
b. [$_{CP}$ his father$_i$ C [$_{IP}$ John$_k$ I [$_{AgrOP}$ t_i AgrO [$_{vP}$ really [$_{vP}$ t_k *v* [$_{VP}$ likes t_i]]]]]]

In other words, topics move to their final destination inside the Ω-Domain via a relevant agreement projection in the Φ-Domain:

(32) [$_{\Omega\Delta}$ his father [$_{\Phi\Delta}$ John ~~his father~~ [really [$_{\Theta\Delta}$ ~~John~~ likes ~~his father~~]]]]

In languages like German, where the verb second constraint holds strictly in matrix clauses, this is even more obvious (cf. fn. 14):

(33) Den Peter mögen alle sehr.
the.ACC Peter like.PL all really
'Peter, everybody really likes.'

Given the plural agreement between *alle* and *mögen*, these two must stand in a specifier-head relationship at one point in the derivation, such as [Spec,IP]. Subsequent raising of *mögen* to C (Top) and topicalization of *den Peter* puts these two into a local configuration, say, within CP (TopP). Abstracting away from finer articulation (e.g. whether the German VP is really head-initial), a Domain-driven derivation looks as follows:

(34) [$_{\Omega\Delta}$ den Peter mögen [$_{\Phi\Delta}$ alle ~~mögen~~ [sehr [$_{\Theta\Delta}$ ~~alle~~ ~~mögen~~ ~~den Peter~~]]]]

And there are other, cross-linguistic reasons to assume A'-movement (movement that targets a position within the Ω-Domain) to pass through an A-position (one within the Φ-Domain). Consider the by now well-known facts about past participle agreement in French (Kayne 1989):

(35) a. Jean a repeint trois chaises.
Jean has repainted three chairs
'Jean has repainted three chairs.'
b. Combien de chaises as-tu *repeint/repeintes?
how-many of chairs have-you repainted.SG/PL

'How many chairs have you repainted?'

Descriptively, the past participle shows agreement with the object only if the object precedes it. Analytically, this suggests that the object has entered into a checking relation with the participle at one point—such as the specifier-head configuration in AgrOP (or something like AgrPartP[19]). This analysis receives support from clitics, which obligatorily leave their thematic position, appear in front of the participle, and trigger agreement:

(36) Jean a les *repeint/repeintes.
Jean has CL repainted.SG/PL
'Jean has repainted them.'

In sum, the hypothesis that overt Wh-movement passes through a Case-checking position is not novel and does not seem crazy either. The reason why in most approaches this step has been eliminated is theory-internal, rather than driven by empirical counter-evidence.

Overtly displaced arguments move into the Φ-Domain for Case and/or agreement checking. This can be a corollary operation, as in the case of A'-movement (as above). Obviously, it can be A-movement proper, as in raising from agent to subject position or theme to object in languages that move (all) their arguments out of their base-generated position. The first case can be illustrated with English, the second one with German:

(37) a. John kissed Mary.
b. Peter hat Maria geküsst.
Peter has Maria kissed
'Peter kissed Maria.'

Under an early MP-approach, the derivations would be something like (38); in the current framework, the parts immediately relevant are shown in (39) in terms of Prolific Domains, disregarding finer structure:

(38) a. [$_{IP}$ John I [$_{v}$P ~~John~~ *v* [$_{VP}$ kissed Mary]]]
b. [$_{IP}$ Peter hat-I [$_{AgrOP}$ Maria AgrO [$_{v}$P ~~Peter~~ *v* [$_{VP}$ geküsst ~~Maria~~]]]]
(39) a. [$_{\Phi\Delta}$ John [$_{\Theta\Delta}$ ~~John~~ kissed Mary]]
b. [$_{\Phi\Delta}$ Peter hat Maria [$_{\Theta\Delta}$ ~~Peter~~ geküsst ~~Maria~~]]]]

A clearer case for languages like English is passivization.[20] In standard

[19] Incidentally, assuming AgrPartP rules out subsequent movement to [Spec,AgrOP] for Case/agreement purposes for obvious reasons. The same obvious reasons apply to a range of other constructions, often taken to indicate Domain-internal movement: scrambling, verb projection raising, multiple subjects, rich vs. poor agreement and subjects, and so on. It goes without saying that a satisfactory treatment of such cases cannot be handled in this paper unless the entire issue is taken up (cf. fn. 20 below).

[20] One reviewer lamented the absence of discussion of a number of relevant phenomena

analyses, the direct object of a passivized transitive verb moves to the grammatical subject position [Spec,IP] to check Case/agreement. Again, this type of movement conforms to the intuition that clause-internal movement targets a position in the next higher Prolific Domain:

(40) a. Mary was kissed (by John).
b. [$_{IP}$ Mary was-I [$_{vP}$ *v* [$_{VP}$ kissed *t*]]]
c. [$_{\Phi\Delta}$ Mary was [$_{\Theta\Delta}$ kissed ~~Mary~~]]

So far we have seen that movement within a Prolific Domain is too local or anti-local and illicit unless the lower copy is spelled out as a grammatical formative. I then looked at standard examples of A'- and A-movement. In order to form the latter, an element moves from its base-generated thematic position within the Θ-Domain to a Case or agreement position within the Φ-Domain. In the former type of movement, there is an additional step targeting a discourse-related position within the Ω-Domain, such as a designated topic or focus/Wh-slot. If movement always targets the next higher Prolific Domain, one might expect another type of movement, namely movement from an element originally merged into the Φ-Domain moving to the Ω-Domain. Expletive constructions in German might be a case at hand:

(41) Es sind zwei Männer im Zimmer.
there are two men in.the room
'There are two men in the room.'

Regardless of what the structure of XP is (such as *v*P or small clause), the relevant steps involve merging expletive *es* in [Spec,IP], (42b), once the finite verb is in I, (42a). If verb second is always expressed in CP (Roberts & Roussou 2002), verb and expletive raise into the Ω-Domain, with the associate left in situ (see Diesing 1992 on relevant argumentation).

(42) a. [$_{I'}$ sind [$_{XP}$ zwei Männer im Zimmer]]
b. [$_{IP}$ es sind [$_{XP}$ zwei Männer im Zimmer]]
c. [$_{CP}$ es$_i$ sind$_k$ [$_{IP}$ t_i t_k [$_{XP}$ zwei Männer im Zimmer]]

With respect to German, another well-known property has to be taken care of as well: scrambling. It has been argued that one type of scrambling is in fact A'-movement, namely scrambling over a subject (Grewendorf & Sabel 1999), which I take to be topicalization (Grohmann 1996). One such

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in a previous version of this article, passivization among them. In Grohmann 2000c, I discuss some more adequately (double object constructions, psych-verbs), others will have to be looked at more carefully in the light of the Anti-Locality Hypothesis in future work (such as middles, applicatives, or anti-passives, for example).

example is (43), where the pre-subject scrambled *den Peter* is coindexed with the pronominal inside the subject *seine Mutter*. The adverb indicates that the object is above the subject, but below the verb second position.

(43) Gestern hat den Peter$_i$ seine$_i$ Mutter besucht.
yesterday has the.ACC Peter his.NOM mother visited
(*)'Yesterday, his$_i$ mother visited Peter$_i$.'

This is often analysed as IP-adjunction.[21] Under current assumptions, *den Peter* must move through an agreement projection (Case, ϕ-features) to its final landing site, which is within the Ω-Domain, say, [Spec,TopP].

This preliminary treatment of some classic constructions shall suffice to illustrate which ways a more thorough revisit from the present perspective might take (see also fn. 19). It is not intended as a comprehensive analysis of these phenomena (such as scrambling in a wider perspective). But I take it that it illustrates quite well how to go about intra-clausal movement and locality notions that make reference to both an upper and a lower bound on the distance an element may move.

3.3 The Intra-Clausal Movement Generalization

The above discussion presents evidence for two states of affairs. First, A-dependencies involve a position within the Θ-Domain and a position within the next higher Φ-Domain. Second, A'-dependencies involve a position within the Θ-Domain and a position within the Ω-Domain of the same clause, obligatorily passing through the Φ-Domain in between.

In other words, clause-internal movement can be captured by strictly taking place from one Prolific Domain to the next higher one, illustrated in (44), where (44a) represents standard A'-movement (Wh-movement, topicalization), (44b) A-movement (subjects in English, possibly all arguments in German), and (44c) raising of an expletive (as in German):

(44) a. $[_{\Omega\Delta}$ … XP … $[_{\Phi\Delta}$ … ~~XP~~ … $[_{\Theta\Delta}$ … ~~XP~~ …]]]
b. $[_{\Omega\Delta}$ … $[_{\Phi\Delta}$ … ~~XP~~ … $[_{\Theta\Delta}$ … ~~XP~~ …]]]
c. $[_{\Omega\Delta}$ … XP … $[_{\Phi\Delta}$ … ~~XP~~ … $[_{\Theta\Delta}$ …]]]

This allows for the generalization (45) about movement within a clause (intra-clausal); displacement of an element from Prolific Domain α targets

[21] In Grohmann 2000c:chap. 3, I rule out the possibility of adjunction-movement (as well as multiple specifiers) on principled grounds, by suggesting a limited set of "Natural Relations" under which checking may occur; these come basically for free with the operation Merge (Chomsky 1998:31). See Grohmann 2003b, 2003c:chap. 2 for revised formulations.

a position within Prolific Domain β, where β is of a different type than α and immediately dominates ('>>') Prolific Domain α:

(45) *Intra-Clausal Movement Generalization*
$[_{\beta\Delta}$ XP … $[_{\alpha\Delta}$ … ~~XP~~ …]], where β >> α

In the current framework, the Intra-Clausal Movement Generalization follows straightforwardly without unmotivated assumptions, and as such is nothing too exciting. It rather is a natural combination of Standard Locality and Anti-Locality: movement within a Prolific Domain is ruled out by the latter, movement targeting the next higher Prolific Domain is enforced by the former.[22] This becomes even more evident once we take into perspective the role of Prolific Domains in the architecture of the grammar: they serve as local evaluation points for the derivation up to that point, feeding the interpretive interfaces by spelling out that part of the derivation. In other words, Prolific Domains are the cyclic parts of the derivation. If movement applies cyclically (common assumption), it must apply first within one given Prolific Domain and then within the next highest one; if movement is local (another common assumption), it may not skip a cycle. The next section investigates movement dependencies spanning across clause boundaries, as opposed to mere Domain-boundaries, and adds the component of successiveness into the equation.

4. An Anti-Local Perspective on Inter-Clausal Movement

The Intra-Clausal Movement Generalization captures clause-internal movement as desired and fits in nicely with minimalist approaches inspired by *Barriers*, yet offering an alternative to a phase-based system (Chomsky 1998, 1999, 2001). But what about movement across clause boundaries, and arising locality considerations? On a par with the *Intra*-Clausal Movement Generalization, I will explore in this section the *Inter*-Clausal Movement Generalization, leading to an equally well-defined

[22] Observe that the Intra-Clausal Movement Generalization makes two predictions. First, all arguments, even PP and clausal complements of a predicate, pass through the Φ-Domain. Second, the same goes for Wh-adjuncts, such as *where* or *when*. While arguments can be found to generate the true Wh-adjuncts *why* and *how* in [Spec,CP], by the same token *where*, *when* and so on must move there.

How to motivate the intermediate step via a Φ-position for either class of elements is yet unclear to me, but note that the same must be said in a phase-based framework. Here, any element that wants to end up in the CP-phase must move through the edge of the *v*P-phase. If no better explanation can be found, one could refer to this as the "reversed EPP-effect." Traditionally, the EPP was the requirement for long-raised subjects to move through non-finite [Spec,IP]-positions along the way. In the wake of Bo‰koviç (2002), we can remove the EPP as the trigger or motivation. Rather, locality is called upon to save an otherwise illegitimate movement step. If the metric for locality is now a Prolific Domain, the same must be said trivially for movements of the sort mentioned here and throughout this section.

generalization to hold of movement across clauses, especially successive-cyclic movement. The empirical testing ground will come mainly from the differences and similarities between raising, control, and ECM structures.

4.1 The Inter-Clausal Movement Generalization

Section 2 contained a brief discussion of some of the problems that a minimalist approach to successive-cyclic movement faces. I offered a first generalization of successive-cyclic movement of the following sort:

(G1) Successive-cyclic A-movement: [Spec,IP] to [Spec,IP]
(G2) Successive-cyclic A'-movement: [Spec,CP] to [Spec,CP]

An obvious translation into the Domain-driven framework would be to replace [Spec,IP] and [Spec,CP] by something like "a position within the Φ-Domain" and "a position within the Ω-Domain," respectively. In this section, I will sharpen this revision substantially.

Following much recent literature, I made the case in section 3.1 for movement into Θ-positions—which I will henceforth refer to as Θ-movement—allowing for a derivational conception of obligatory control. Conforming to the Intra-Clausal Movement Generalization, clause-internal Θ-movement can only take place when followed by Copy Spell Out. But what about Θ-movement across clause boundaries? With respect to the initial discussion of control structures, I said that there might be a number of possibilities how it might fit in. Among contenders, I opted for (G3) as opposed to, say, (G3'):[23]

(G3) Successive-cyclic Θ-movement: [Spec,*v*P] to [Spec,*v*P] in one step
(G3') Successive-cyclic Θ-movement: [Spec,*v*P] to [Spec,*v*P] via [Spec,IP]

[23] As one reviewer reminds me, independent of the current approach (the Anti-Locality framework) and the data scrutinized below (raising vs. control), Bo‰koviç (1994) originally proposed a ban on movement from [Spec,*v*P] to [Spec,*v*P] passing through [Spec,IP] as an instance of Improper Movement, arguing convincingly that movement into a thematic position cannot take place from a non-thematic one. Such a view on derivations adds to the feeling that the A-/A-dichotomy cannot be upheld for lack of coverage. As Müller & Sternefeld (1993) note (followed up in Rizzi 1997, 2001, 2003a, and much subsequent research, such as Starke 2001), individual representatives of A'-movement, such as topicalization or Wh-movement, arguably involve different positions in the structure (at least different types of features). Just as well one could argue, as indeed I do below (and does Bo‰koviç 2002), that different types of A-dependencies underlie different derivational histories. This is particularly apparent for ECM constructions (Lasnik 1999 and references cited), but extends to the distinction between raising and control as well (sections 4.3 and 4.6), and arguably beyond (see Grohmann 2001, 2003c:chap. 8 on small clauses). The extension envisaged in the present article capitalizes on the existence of Θ-movement, but interacts quite freely with A-movement. In a nutshell, this renders a clean split between A- and A'-movement untenable.

Replacing now [Spec,*v*P] and [Spec,IP] by "a position within the Θ-Domain" and "a position within the Φ-Domain," respectively, we could render these possibilities into current perspective. As I said above, I will opt and argue for (G1)-(G3). In fact, I will go further than that and propose a cleaner ontology of successive-cyclic movement promised in section 2:

(S1) Successive-cyclic A'-movement takes place from a position within one Ω-Domain to a position within the next higher Ω-Domain.
(S2) Successive-cyclic A-movement takes place from a position within one Φ-Domain to a position within the next higher Φ-Domain.
(S3) Successive-cyclic Θ-movement takes place from a position within one Θ-Domain to a position within the next higher Θ-Domain.

The Inter-Clausal Movement Generalization can be formulated on a par with the Intra-Clausal Movement Generalization and simultaneously capture (S1)-(S3). As already mentioned, a number of issues will have to be resolved. In this section and the next, then, I will address the defense points (D1) through (D4) from section 2, repeated here for convenience:

(D1) I will deny the obligatory need to move through non-finite [Spec,IP].
(D2) I will ensure such movement to apply when needed for convergence.
(D3) I will define convergence needs through alternative type of locality.
(D4) I will appeal to the Anti-Locality Hypothesis for these constructions.

(46) is my suggestion for a formulation of the Inter-Clausal Movement Generalization, holding for movement across clause boundaries:

(46) *Inter-Clausal Movement Generalization*
$[_{\alpha\Delta}$ XP … ‡ … $[_{\alpha\Delta}$ … ~~XP~~ …]], where ‡ = clause boundary

Put simply, movement across a clause boundary can only target a position within the same type of Prolific Domain as the launching position—depending on α, movement from a Θ-position must target the next higher Θ-Domain, movement from a Φ-position the next higher Φ-Domain, and movement from an Ω-position the next higher Ω-Domain.

This formulation generalizes (S1)-(S3) without evoking "types" of movement (such as the A-/A'-dichotomy). I take this to be an advantage as we can now investigate grammatical structures without making reference to specific constructions. As such, while I will continue to use the A-/A'-distinction or classifications such as control and raising structures as illustrative notions, nothing deep follows from it. I will present some consequences of this as I proceed and return to this issue in section 5.

4.2 Long-Distance Wh-Movement

The arguably most apparent confirmation of the Inter-Clausal Movement Generalization comes from successive-cyclic movement witnessed in long-distance Wh-dependencies. For the longest time, successive-cyclic Comp-to-Comp has been on the agenda of generative theory. The relevant underlying derivation for (47a) would be something like (47b):

(47) a. Who do you think Mary said John kissed?
b. [$_{CP1}$ who do-C [$_{IP1}$ you think [$_{CP2}$ ~~who~~ C [$_{IP2}$ Mary said [$_{CP3}$ ~~who~~ C [$_{IP3}$ John I [$_{AgrOP}$ ~~who~~ AgrO [$_{vP}$ ~~John~~ *v* [$_{VP}$ kissed ~~who~~]]]]]]

In order to get to matrix [Spec,CP], *who* moves through all intermediate [Spec,CP]'s. Arguments for successive-cyclicity are manifold, especially for theory-internal reasons (viz. Standard Locality); other, empirical arguments come from languages which show a morphological reflex in such constructions (among others, Irish, as discussed in McCloskey 2002; see his paper for a representative survey and relevant references).

Putting what was reviewed above into a Domain-driven framework, (47a) would receive the structure in (48), where clause boundaries are indicate on separate lines by '‡' used in (46):

(48) [$_{\Omega\Delta 1}$ who do [$_{\Phi\Delta 1}$ you [$_{\Theta\Delta 1}$ think
‡ [$_{\Omega\Delta 2}$ ~~who~~ [$_{\Phi\Delta 2}$ Mary [$_{\Theta\Delta 2}$ said
‡ [$_{\Omega\Delta 3}$ ~~who~~ [$_{\Phi\Delta 3}$ John ~~who~~ [$_{\Theta\Delta 3}$ kissed ~~who~~]]]]]]]]]

More generally, on a par with (44), the *Inter*-Clausal Movement Generalization coupled with the *Intra*-Clausal Movement Generalization can be illustrated for successive-cyclic Wh-movement as follows:

(49) [$_{\Omega\Delta 1}$ … XP … [$_{\Phi\Delta 1}$ … [$_{\Theta\Delta 1}$ …‡ [$_{\Omega\Delta n}$ … ~~XP~~ … [$_{\Phi\Delta n}$ … ~~XP~~ … [$_{\Theta\Delta n}$ … ~~XP~~ …]]]]]]

Intra-clausal movement applies within clause *n* before inter-clausal movement targets successively a position within ΩΔ from clause *n* to clause *1* via *n-1*, *n-2* etc. In other words, movement takes place from a position within one Prolific Domain to a position within the same type of Prolific Domain in the next higher clause, once that position is reached.

The same derivational history underlies other instances of (long) A'-movement, such as topicalization, clefting, or relativization:

(50) a. Mary, Bill thinks (that) Jane said (that) John kissed.
b. It is Mary that Bill thinks (that) Jane said (that) John kissed.

c. the girl who/that Bill thinks (that) Jane said (that) John kissed

Relativization or Wh-movement out of past participle structures in French offer further evidence for some sort of touch-down along but not all the way: agreement is only triggered in the clause the Wh-phrase originates (Branigan 1992). (51) and (52) are relevant examples:

(51) la lettre [qu'il a [$_{AgrP}$ *t'* [$_{AgrP}$ dit [que Pierre lui
the letter that-he has said that Pierre to-him
a [envoyé *t*]]]]
has sent
'the letter that he said that Pierre sent to him' (Chomsky 1995: 325)

(52) Quelles chaises as-tu dit/*dites qu'il a
which.PL chairs.PL have-you said.SG/PL that-he has
*repeint/repeintes?
repainted.SG/PL
'Which chairs did you say that he repainted?' (Ian Roberts, p.c.)

With the derivation sketched in (51), Chomsky intended to show that adjunction-movement of the operator to the projection containing a higher-clause participle (*t'*, *dit*) does not result in agreement. For him (and virtually everyone else), this is a serious problem: as an A'-operator, it should be able to freely undergo adjunction-movement (A'-movement by definition), and as it can be adjoined to one participle projection, it is not clear why it could not adjoin to another.

By ruling out adjunction-movement, we can of course account for the facts (see fn. 21). Note that in the present framework this step is not even predicted: the descriptive notion "A'-movement" is not a primitive and in this framework restricted to applying within the Ω-Domain. Since participle agreement is outside the Ω-Domain, such a movement operation, even if allowed, would not count as A'-movement—and more importantly, a derivation including touch-down at an intermediate participial position would violate the Inter-Clausal Movement Generalization.

Thus the relative operator in (51) undergoes the same movement steps as the Wh-phrase in (52): intra-clausal movement in its clause of origin into the Ω-Domain and subsequent, possibly successive-cyclic inter-clausal movement to its final landing site (the Ω-Domain of the relative clause in one and of the matrix clause in the other case).[24] The relevant derivations are sketched in (53a) and (53b), respectively, where '…' indicates the vacated *v*/VP (participial verb and all arguments: subject,

[24] With the remarks in section 2 in mind (also fn. 6 above and section 4.4 below), the observant reader may wonder what happened to the project of eliminating all rules of construal. Indeed, Hornstein (2001) explicitly advances a derivational analysis of relative clause constructions as well, thus ridding the grammar of yet another empty entity, the null operator (OP). Section 5.1 below addresses this direction briefly, as one crucial ingredient of such an approach hinges on an implementation of sideward movement.

indirect object clitic and relative operator/Wh-phrase).

(53) a. la lettre [$_{\Omega\Delta}$ OP$_i$ qu'il [$_{\Phi\Delta}$ a dit [$_{\Theta\Delta}$ … [$_{\Omega\Delta}$ t_i que [$_{\Phi\Delta}$ Pierre lui a t_i envoyé [$_{\Theta\Delta}$ … t_i …]]]]]]

b. [$_{\Omega\Delta}$ [quelles chaises]$_i$ as-tu [$_{\Phi\Delta}$ dit [$_{\Theta\Delta}$ … [$_{\Omega\Delta}$ t_i qu'il [$_{\Phi\Delta}$ a t_i repeintes [$_{\Theta\Delta}$ … t_i …]]]]]]

I address Wh-movement in further contexts below, in particular, in its relation to and application within raising, control, and ECM environments.

4.3 Raising to Subject

Interestingly, one does not only find successive-cyclic movement with A'-dependencies. Traditional analyses of raising structures assume virtually the same type of successive-cyclic derivation for the raised subject depicted in (54b) for (54a), though with different motivation:

(54) a. John seems to be likely to appear to like Mary.

b. [$_{IP1}$ John I seems [$_{IP2}$ ~~John~~ to-I be likely [$_{IP3}$ ~~John~~ to-I appear [$_{IP4}$ ~~John~~ to I [$_{vP}$ ~~John~~ like Mary]]]]]

In current notation, this would look like (55):[25]

(55) [$_{\Phi\Delta 1}$ John [$_{\Theta\Delta 1}$ seems
‡ [$_{\Phi\Delta 2}$ ~~John~~ to [$_{\Theta\Delta 2}$ be likely
‡ [$_{\Phi\Delta 3}$ ~~John~~ to [$_{\Theta\Delta 3}$ appear
‡ [$_{\Phi\Delta 4}$ ~~John~~ to [$_{\Theta\Delta 4}$ ~~John~~ like Mary]]]]]

The pattern is the same: the most deeply embedded element undergoes all relevant movement steps in its immediate clause and then moves to a position within the same type of Prolific Domain in the next higher clause. Again, I suggest that one state of affairs is forced by Anti-, the other by Standard Locality.

In line with the Inter-Clausal Movement Generalization, we can rule out ungrammatical instances of super-raising as well. Applying intra- and inter-clausal movement as suggested here yields the following derivations for (7a-b) from section 2, for example:

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[25] One might object that one property of deficient, non-finite tense is absence of agreement properties and as such should not be part of the Φ-Domain. Recall from fn. 9, however, that I take Domain-affiliation to be encoded by a contextual index, so that T (or I) is always part of the Φ-Domain, whether finite or not. Besides, non-finiteness need not mean lack of agreement; further issues aside, witness inflected infinitives in European Portuguese (Raposo 1987), for example, agreement marking on non-finite verbal elements in Mohawk (Baker 1996), or of course participle agreement in French reviewed above.

(56) a. *[$_{\Phi\Delta}$ John seems [$_{\Phi\Delta}$ to be eager (that) [$_{\Phi\Delta}$ it appears [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ __ kiss Mary]]]]]

b. *[$_{\Phi\Delta}$ John seems [$_{\Phi\Delta}$ to be eager (that) [$_{\Phi\Delta}$ Bill appears [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ __ kiss Mary]]]]]

On minimal assumptions, raising verbs lack an external θ-role, which we can implement as either not assigning them a Θ-Domain or simply ignore it. The relevant movement steps in (56), then, involve the base position '__' and all Φ-positions. As the examples are both ungrammatical, it is hard to decide unambiguously where the grammatical violation lies. The base position '__' could be either *it* or, more likely, *John* in (56a) and *Bill* or *John* in (56b). If we choose the lower subject (expletive *it* and *Bill*, respectively), the grammatical violation seems to be theta-theoretic: *John* has not been assigned a θ-role/checked a θ-feature. (Note that we do not have to implement the/a Theta Criterion: as an argument it must check a θ-role, and here it cannot do so.) If we take '__' to be the base position of the matrix subject, *Bill* would not receive a θ-role in (56b). For both, (56a) and (56b), however, one (additional) grammatical violations incurs: the movement step from '__' to anywhere else in the clause would violate either the Intra-Clausal Movement Generalization (the potential landing site in the next higher Prolific Domain being filled) or the Inter-Clausal Movement Generalization (movement cannot target a Θ-Domainic position in the next higher clause).

The same line of reasoning can be applied to all other types of raising structures, of which I will return to two variants below, raising to object ("ECM") and combining raising and control structures. A third variant concerns the combination of subject-to-subject raising and Wh-movement. Interestingly, it always follows the same kind of pattern: first an element raises to subject position, then it Wh-moves—never the other way around (Improper Movement; see Müller & Sternefeld 1993 for discussion and references). This pattern is neatly captured by the combination of the Intra- and Inter-Clausal Movement Generalizations.

The relevant (grammatical and ungrammatical) cases I have in mind are (9)-(12) from above, put here into current structural representations. I illustrate the point with the a-cases for the relevant Prolific Domains.

(57) [$_{\Omega\Delta1}$ **who** [$_{\Phi\Delta1}$ ~~who~~ seems [$_{\Phi\Delta2}$ ~~who~~ to be likely [$_{\Phi\Delta3}$ ~~who~~ to have [$_{\Theta\Delta3}$ ~~who~~ kissed Mary]]]]]

(58) [$_{\Omega\Delta1}$ who did [$_{\Phi\Delta1}$ Bill say [$_{\Omega\Delta2}$ ~~**who**~~ [$_{\Phi\Delta2}$ ~~who~~ seems [$_{\Phi\Delta3}$ ~~who~~ to be likely [$_{\Phi\Delta4}$ ~~who~~ to have [$_{\Theta\Delta4}$ ~~who~~ kissed Mary]]]]]]]

(59) [$_{\Omega\Delta1}$ who did [$_{\Phi\Delta1}$ Bill say [$_{\Omega\Delta2}$ ~~who~~ (that) [$_{\Phi\Delta2}$ Jane thinks [$_{\Omega\Delta3}$ ~~**who**~~ [$_{\Phi\Delta3}$ ~~who~~ seems [$_{\Phi\Delta4}$ ~~who~~ to have [$_{\Theta\Delta4}$ ~~who~~ kissed Mary]]]]]]]]

(60) *[$_{\Omega\Delta1}$ who did [$_{\Phi\Delta1}$ Bill say [$_{\Omega\Delta2}$ ~~who~~ (that) [$_{\Phi\Delta2}$ ~~who~~ seems [$_{\Omega\Delta3}$ ~~**who**~~

(that) [$_{\Phi\Delta 3}$ Jane wonders [$_{\Phi\Delta 4}$ **~~who~~** has [$_{\Theta\Delta 4}$ ~~who~~ kissed Mary]]]]]]]]

As the bold-faced copies in the grammatical instances demonstrate, inter-clausal movement, following intra-clausal movement, can itself in principle be followed by another instance of intra-clausal movement. The two bold-faced copies in each of the ungrammatical structures show that neither generalization can be surpassed by skipping a predicted step.

Let me reiterate at this point that the findings so far are neither revolutionary nor particularly ground-breaking. All things being equal, the movement steps indicated here follow traditional lines of analysis. With respect to (9)/(57) or (10)/(58), for example, one would say that local A-movement can be followed by long A-movement and subsequent (local) A'-movement (and even further, long-distance A'-movement). What is novel, however, is on the one hand that successive-cyclic movement can be described in terms of a condition on movement and on the other that classic long-distance A- and A'-dependencies can be subsumed under the same generalization. In other words, much in line with the findings in Bo‰koviç 2002, for example, movement through non-finite [Spec,IP] can be achieved without reference to the EPP, and there is no need to reserve a specific escape hatch viz. [Spec,CP]: stepping through either position is forced by an alternative take of (Standard) Locality, here expressed in terms of Prolific Domains.

4.4 Control Structures

Since within the current set of assumptions, movement into Θ-positions is in principle allowed (see references above), one might wonder what the impact of the Inter-Clausal Movement Generalization could be for other constructions. One that immediately comes to mind—especially in the face of the discussion so far—is the (obligatory) control dependency.

Consider a derivational approach to such control structures, like the one advocated by Norbert Hornstein in recent years.[26] Taking minimalist desiderata seriously to try and simplify the inventory of tools, conditions, assumptions and so on, Hornstein (2001) scrutinizes a number of modules internal to the language faculty that were part of GB theory. One of these,

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[26] See Hornstein 1998, 1999, 2001, 2003, Boeckx & Hornstein 2003b, and much work inspired by it (e.g., Aoshima 2000 on control in Japanese, Hornstein & San Martin 2000 on obviation effects, Pires 2001 on gerunds, Hornstein & Kiguchi 2003 on PRO-gate, Hornstein & Nunes 2002 on across-the-board phenomena, Kiguchi 2002 on chains, and so on).

I concentrate on Hornstein's specific proposal, as it (a) is couched in a minimalist framework (as opposed to say Bowers 1973), (b) assumes a very similar view of the grammar as endorsed here (as opposed to Manzini & Roussou 2000, for example), and (c), most importantly, is compatible with the Anti-Locality framework. In fact, the Anti-Locality framework supports his particular analysis without postulating additional machinery.

the Control Module (including the PRO theorem) is particularly suspect. Not only because as a module it better be something needed for virtual conceptual necessity. Following the usual Ockham's razor arguments, a module constitutes additional machinery that should only exist if it really gives us much—and if it does not, and if its effects can be explained otherwise (with the help of existing assumptions), it should be abolished. (Besides that, PRO is also identified by concepts that do not play a role anymore, in particular the requirement that PRO be ungoverned.) The other angle of Hornstein's major scheme is to rigorously investigate whether the extensive apparatus of empty entities in the grammar, postulated to capture applications of rules of construal, is really necessary. This includes empty operators as well as PRO to derive relative clauses and other instances of complex predication, but also obligatory (and non-obligatory) control; I will return to this issue briefly in section 5.1.

Thus, we could either develop a minimalist version of government and restate this condition—not a satisfactory option for obvious reasons. Or we could find another (type of) requirement that explains the identification, distribution and licensing of PRO—such as the Null Case approach (cf. Martin 1996, extending a proposal from Chomsky & Lasnik 1993). Alternatively, we can look at the properties of PRO and examine whether, in the absence of a government relation and so on, we can reduce it to already existing entities—such as those objects left behind by movement, i.e. a copy of (NP-) movement. This is the line that Hornstein embarks on and develops (see also fn. 27 below). Relevant here is an analysis in terms of movement—for both raising and control. I will review this very briefly.

Raising and control constructions exhibit a number of obvious similarities: they both involve a non-finite complement clause whose subject position is phonetically empty, that subject receives its interpretation from the filled subject position in the finite matrix clause, and so on. The main difference, to be derived in a movement analysis, is that the control dependency between the overtly filled matrix and the empty embedded subject involves two θ-roles, but the raising dependency only one. Interestingly, filling of the non-finite [Spec,IP]-position has been argued in both types of structure to rest on the EPP, some requirement that all grammatical subject positions be filled. I have already committed myself to an approach that dispenses with the EPP, and in the case of raising we have seen above that there is indeed no necessity to evoke this stipulated principle, as the passing through of intermediate positions follows from the Inter-Clausal Movement Generalization. Let me apply this reasoning to control structures, then.

One way of establishing the identity of the matrix and embedded subject in control structures, such as (61a), is to analyse it as a movement dependency, rather than a dependency of construal (construing the matrix subject with the embedded PRO subject). The different analyses are

represented in (61b) and (61c), respectively, in a simplified, preliminary fashion:

(61) a. John wants to kiss Mary.
b. [$_{IP}$ John wants [$_{IP}$ PRO to kiss Mary]]
c. [$_{IP}$ John wants [$_{IP}$ ~~John~~ to kiss Mary]]

If it turns out that one's wariness of employing PRO is well-founded, (61b) is the less preferred analysis. Hornstein opts for some form of (61c), and so will I.

In fact, the movement analysis of control put forward by Hornstein is movement of the embedded subject from its (thematic) agent-position to the matrix agent-position—movement into a Θ-position. He considers both (62a) and (62b). The former assumes the intermediate step for reasons of the EPP (originally entertained in the beginning of chapter 2, e.g. pp. 27, 38). The latter follows Castillo, Drury & Grohmann's (1999) doubts about the EPP, dispenses with that step and moves the subject in one fell swoop as, what we would call, *Θ-to-Θ-movement* (adopted in the remainder of the book; see chap. 2, esp. pp. 56f. and p. 223, fn.12).

(62) a. [$_{IP}$ John I [$_{vP}$ ~~John~~ wants [$_{IP}$ ~~John~~ to-I [$_{vP}$ ~~John~~ kiss Mary]]]]
b. [$_{IP}$ John I [$_{vP}$ ~~John~~ wants [$_{IP}$ Ø to-I [$_{vP}$ ~~John~~ kiss Mary]]]]

From the point of view of the Inter-Clausal Movement Generalization, (62b) would fit the pattern. Moreover, if the EPP does not exist, the intermediate touch-down would not be required a priori. On the other hand, we would like this intermediate touch-down to happen in raising structures for the same reason. There are basically three choices for both control and raising, all of which have been entertained in one way or another in the literature:

(C1) Passing through non-finite [Spec,IP] is enforced by the EPP.
(Chomsky 1981, 1982 and all standard approaches since)
(C2) The EPP doesn't exist, hence the intermediate [Spec,IP] is empty.
(Epstein & Seely 1999, Grohmann, Drury & Castillo 2000)
(C3) The EPP doesn't exist, but the position is filled for Locality reasons.
(Grohmann 2000c, 2003a; Bo‰koviç 2002 for independent reasons)

Only (C3) fits with the working hypothesis concerning the distinction of intra- vs. inter-clausal movement. Based on the Inter-Clausal Movement Generalization, an obvious derivation would indeed be (62b) or in terms of Prolific Domains, (63):

(63) [$_{\Phi\Delta}$ John [$_{\Theta\Delta}$ ~~John~~ wants [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~John~~ kiss Mary]]]]

John is agent of both *kiss* and *want*; it bears two θ-features. Given that it cannot receive nominative from the embedded infinitival, it has to move into the matrix, just as in raising structures. The major difference between raising and control is, however, that raising subjects bear one, control subjects two θ-roles. The by now obvious solution is to move *John* in control structures from the embedded Θ- to the matrix Θ-position to check an additional θ-feature. The Inter-Clausal Movement Generalization allows, or rather predicts, exactly this operation. It thus stands in contrast to the one originally provided by Hornstein (but see fn. 27 below), where *John* moves into the matrix Θ-position via embedded [Spec,IP], (62a).

Lastly, in this context, I want to mention the control-pendant to Wh-moving raised subjects (cf. (9)-(12)/(57)-(60) above). Consider (64):

(64) a. Who wants to kiss Mary?
b. Who wants to try to kiss Mary?

The derivation for such structures within the framework outlined here does not pose any difficulty. In fact, it follows straightforwardly from the discussion. The Wh-phrase, also functioning as the controller, raises from its thematic base position to the Θ-position construed with the control verb *want*—an instance of inter-clausal movement from the most deeply embedded Θ-Domain to a position within the Θ-Domain of the next clause. This may be iterated (as in (64b)) before successive intra-clausal movement to the matrix Ω-Domain applies (via its Φ-Domain, of course). The respective derivations are illustrated in (65):

(65) a. [$_{\Omega\Delta}$ who [$_{\Phi\Delta}$ ~~who~~ [$_{\Theta\Delta}$ ~~who~~ wants [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~who~~ kiss Mary]]]]]
b. [$_{\Omega\Delta}$ who [$_{\Phi\Delta}$ ~~who~~ [$_{\Theta\Delta}$ ~~who~~ wants [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~who~~ try [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~who~~ kiss Mary]]]]]]]

When we consider the combination of Wh- and Θ-movement, we must assume the complements of control predicates to make available a CP-layer, viz. an Ω-Domain. Thus, examples such as (66) can only be analysed as in (67) below (in the control meaning; for an ECM-interpretation, see section 4.6): intra-clausal movement targeting the Ω-Domain, followed by inter-clausal movement to the position, where the Wh-phrase is licensed (the matrix or embedded interrogative Wh-position, such as [Spec,CP] or [Spec,FocP], depending on further assumptions).

(66) a. Who does John want to kiss?
b. Who does John want to try to kiss?
c. Peter wonders who John wants to kiss.
(67) a. [$_{\Omega\Delta}$ who does [$_{\Phi\Delta}$ John [$_{\Theta\Delta}$ ~~John~~ want [$_{\Omega\Delta}$ ~~who~~ [$_{\Phi\Delta}$ ~~who~~ to [$_{\Theta\Delta}$ ~~John~~

kiss ~~who~~]]]]]]

b. [$_{\Omega\Delta}$ who does [$_{\Phi\Delta}$ John [$_{\Theta\Delta}$ ~~John~~ want [$_{\Omega\Delta}$ ~~who~~ [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~John~~ try [$_{\Omega\Delta}$ ~~who~~ [$_{\Phi\Delta}$ ~~who~~ to [$_{\Theta\Delta}$ ~~John~~ kiss ~~who~~]]]]]]]]]

c. Peter wonders [$_{\Omega\Delta}$ who [$_{\Phi\Delta}$ John [$_{\Theta\Delta}$ ~~John~~ wants [$_{\Omega\Delta}$ ~~who~~ [$_{\Phi\Delta}$ ~~who~~ to [$_{\Theta\Delta}$ ~~John~~ kiss ~~who~~]]]]]]

An Ω-Domain on top of control complements does not run into trouble with traditional quibbles regarding the structural relation between a control verb and PRO; PRO does not exist. Hence, there is no need to establish any such relation, not with PRO and not with any copies involved. The control subject simply moves as Θ-movement. The Ω-Domain is necessary to ensure an escape hatch for any other element that needs to get out.

4.5 Raising vs. Control

The bottom-line of the discussion in this section is that the status, theoretically and empirically, of the EPP is anything but clear. That means that there is no a priori reason for specifier positions of deficient, infinitival clauses to be filled. Relevant at this point is that, as Grohmann, Drury & Castillo (2000) suggest, there is no condition or principle like the "EPP" that forces this kind of position to be filled.

Interestingly, Bo‰koviç (2002), eager to dispense with the EPP if at all possible, finds that while the EPP as such is neither empirically motivated nor theoretically necessary, filling of this funny intermediate specifier position of a deficient IP may be necessary for locality reasons. By Standard Locality, the subject of an infinitival clause in raising constructions, as in (54a), cannot move from its base-generated Θ-position to matrix [Spec,IP] in one fell swoop. This is reflected in the present analysis of raising constructions as well.

Note that this conclusion is also reflected in the Inter-Clausal Movement Generalization (45): if one understands at least parts of Standard Locality in terms of distance qua Prolific Domain (of the same type), successive-cyclic movement from [Spec,IP] to [Spec,IP] in subject-to-subject raising is predicted to take place without evoking the EPP.

Recall the two competing analyses from (62). Any implementation of the EPP would prefer (62a), the one suggested originally by Hornstein (2001).[27] However, if the EPP is dispensed with and movement understood

[27] The reference to Hornstein 2001 is appropriate because this is one serious attempt, within MP, to assimilate raising and control constructions in as far as possible, plausible and desirable (extended in Hornstein 2003, including a discussion of apparent counter-examples from partial control, and further defended in Boeckx & Hornstein 2003b; for interesting alternative implementations of the same idea, see O'Neil 1995, Manzini & Roussou 2000). For an earlier attempt to do this, see Bowers 1973.

Note that Hornstein (2001, especially pp. 56f. and fn. 12 on p. 223) also offers the

to conform to Standard as well as Anti-Locality considerations (as expressed by the Inter-Clausal Movement Generalization in this case), (63) should be favoured. This begs the question how control and raising structures differ, as they obviously do. As mentioned above, control verbs have a full thematic structure or Θ-Domain (containing *v*P and VP). Hence Θ-to-Θ-movement as in (62b) would indeed be an appropriate option, hand in hand with the Inter-Clausal Movement Generalization.

(68) a. John wants to kiss Mary.
b. [$_{IP}$ John I [$_{vP}$ ~~John~~ *v* [$_{VP}$ wants [$_{IP}$ to-I [$_{vP}$ ~~John~~ *v* [$_{VP}$ kiss Mary]]]]]]

Raising verbs, on the other hand, lack a full thematic structure (Zwart 2001b); presumably the deficient Θ-Domain of this class of verbs contains only VP. From the point of view of the Inter-Clausal Movement Generalization, Φ-to-Φ-movement should apply here, as sketched below:

(69) a. John seems to kiss Mary.
b. [$_{IP}$ John I [$_{VP}$ seems [$_{IP}$ ~~John~~ to-I [$_{vP}$ ~~John~~ *v* [$_{VP}$ kiss Mary]]]]]

This yields not only the similarities between raising and control (by moving the embedded subject in both types of construction), but also a difference, namely in structure: subject-to-subject raising dependencies involve movement through [Spec,IP], obligatory control dependencies do not. In both cases, however, the operations that displace the subject of an infinitival complement clause adhere to Standard and Anti-Locality qua Inter-Clausal Movement Generalization. (70a) illustrates the abstract generalization for subject-raising and (70b) for obligatory control:

(70) a. [$_{\Phi\Delta}$ XP I … [$_{\Theta\Delta}$ Ø raising-V … ‡ … [$_{\Phi\Delta}$ ~~XP~~ I … [$_{\Theta\Delta}$ ~~XP~~ V …]]]]
b. [$_{\Phi\Delta}$ XP I … [$_{\Theta\Delta}$ ~~XP~~ control-V … ‡ … [$_{\Phi\Delta}$ Ø I … [$_{\Theta\Delta}$ ~~XP~~ V …]]]]

This discussion should suffice. Much more can and need be said, of course, such as differences in the structure of the Θ-Domain in the two cases; one could say, for example, that the Θ-Domain does not contain *v*P in raising, but it does in control constructions, thus taking away the technical possibility for a raised subject to check an additional θ-role (see Zwart 2001b for related discussion). In the remainder of this section, I want to look a bit more at the interplay of Φ-movement/raising and Θ-movement/control structures and at empirical benefits under this approach.

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alternative account without movement through non-finite [Spec,IP], following Castillo, Drury & Grohmann's (1999) suggestion— but my reasoning for adopting this alternative is different: it combines the Anti-Locality Hypothesis more naturally with the proposal in Bo‰koviç 2002 that eliminates the EPP and understands successive cyclicity as a property of movement itself (here phrased in locality-theoretic terms).

The proposal does not only support Bo‰koviç's (2002) approach to ridding the grammar of the EPP, it also captures nicely, as pointed out by one reviewer, the following contrast:

(71) a. All the students seem to know French.
b. All the students try to know French.
(72) a. The students seem all to know French.
b. *The students try all to know French.

Regardless of the correct analysis of floating quantifiers (see e.g. Bo‰koviç 2001 and especially Bobaljik 2003 for discussion and references), the possibility of stranding *all* in raising, but not in control structures points to only one state of affairs: the intermediate subject position, non-finite [Spec,IP], is involved in the former, but not the latter construction. Taking one popular approach to floating quantifiers, Sportiche's (1988) stranding analysis can be neatly applied to capture this difference—once we assume the Inter-Clausal Movement Generalization. If the controlling subject starts out in the embedded Θ-Domain and moves in one fell swoop to the matrix Θ-Domain, (72b), the possibility of stranding the quantifier somewhere in between does not even arise. A raising subject, however, passes through one such position and may strand the quantifier, (72a).

Note that under a less radical departure from traditional derivations, of the sort Bo‰koviç (2001, 2002) pursues (see also Bo‰koviç 1994, 1997a), this contrast cannot be captured quite as easily, since it is not at all clear what happens to non-finite [Spec,IP] in control environments (see also the relevant type of derivational history for control offered by Hornstein 1999, 2001). While the floating quantifiers in raising structures is accounted for without evoking the EPP, it is not ruled out for control structures. The present proposal does not face such complications.

Now, what happens when we combine raising and control predicates? Some of the cases I have in mind are the following:

(73) a. John seems to want to kiss Mary.
b. John wants to seem to kiss Mary.
c. John wants to seem to try to appear to kiss Mary.

It looks like in (73a), a matrix raising verb selects a control complement and in (73b) a matrix control predicate a raising structure; (73c) illustrates this iteratively (which also works the other way around).

The potential problem such structures could pose to the present approach are obvious: if, generally, raising subjects move from a Φ- to another Φ-position and control subjects from a Θ- to another Θ-position, how could these possibly intermingle? By the Intra- and Inter-Clausal

Movement Generalizations, (73a) should actually be no problem:

(74) [$_{\Phi\Delta}$ John seems [$_{\Phi\Delta}$ ~~John~~ to [$_{\Theta\Delta}$ ~~John~~ want [$_{\Phi\Delta}$ to [$_{\Theta\Delta}$ ~~John~~ kiss Mary]]]]]

John moves from its original Θ-position to a Θ-position in the next higher Θ-Domain, thereby picking up the second θ-role (inter-clausal movement). It then moves to a position within the next higher Φ-Domain (intra-clausal), before finally raising into the matrix Φ-Domain for Case/agreement purposes (inter-clausal). This type of intermingling of inter- and intra-clausal movement is not problematic: movement through [Spec,IP] in infinitival environments of obligatory control is not ruled out by force, it simply is ruled out by economy considerations in the typical case; it can only apply if needed for convergence, i.e. when needed for locality reasons, and as such it *may* apply when necessary, as in (73a), for instance (see also the discussion on combining Wh-movement and raising/control structures above).

But what about (73b)? As a first stab, one might want to assign it the structure in (75):

(75) [$_{\Phi\Delta1}$ John [$_{\Theta\Delta1}$ **~~John~~** wants [$_{\Phi\Delta2}$ ~~John~~ to seem [$_{\Phi\Delta3}$ ~~John~~ to [$_{\Theta\Delta3}$ ~~John~~ kiss Mary]]]]]

If *seem* is a pure raising predicate, it should not have a Θ-Domain (or if it does, it should not serve as a potential landing site for an additional argument, *John* in this case). Thus, in order to get into the Φ-Domain of ΦΔ2, *John* first needs to move to a position within the Φ-Domain of its originally, most deeply embedded thematic position (ΦΔ3). It can do so easily by intra-clausal movement, followed by inter-clausal movement. But how could it then pick up an additional θ-role, if movement into a Θ-position must be launched from the Θ-Domain of the immediately succeeding clause, i.e. from something like a position within ΘΔ2 to ΘΔ1? There is no (relevant) ΘΔ2, but clearly *John* must step through ΘΔ1 for theta-theoretic reasons. (The violating copy is marked in boldface.)

The same problem arises multiply in an analysis of (73c) along the lines just sketched:

(76) [$_{\Phi\Delta1}$ John [$_{\Theta\Delta1}$ **~~John~~** wants [$_{\Phi\Delta2}$ ~~John~~ to seem [$_{\Phi\Delta3}$ ~~John~~ to [$_{\Theta\Delta3}$ **~~John~~** try [$_{\Phi\Delta4}$ ~~John~~ to appear [$_{\Phi\Delta5}$ ~~John~~ to [$_{\Theta\Delta5}$ ~~John~~ kiss Mary]]]]]]]]

The problem is that movement from a clause containing a raising predicate to one containing a control predicate is simply not possible holding fast to the Intra- and Inter-Clausal Movement Generalizations.

It seems that at this point, the generalized conditions on successive

cyclicity advocated here break down. But this need not be so. If we consider the meaning expressed in these structures more closely, we can observe that *seem* acts like a clear, pure raising predicate in (73a), but not in (73b) and (73c).

This said, the questions that arise immediately are the following. What is a "pure" raising predicate, and how does it differ from in impure one? And how can *seem* be a pure raising predicate in one, but not the other case?

To get a grip on these questions, consider the following paradigm, where (77'a-f) are semantic equivalents to (77a-f):

(77) a. John seems to kiss Mary.
b. John seems to be sick.
c. John seems sick.
d. John wants to seem sick.
e. John wants to seem to be sick.
f. John wants to seem to kiss Mary.

(77') a. It seems that John kisses Mary.
b. It seems that John is sick.
c. *It seems that John sick.
d. *It seems that John wants sick.
e. #It seems that John wants to be sick.
f. #It seems that John wants to kiss Mary.

Aspects of these patterns are well known from Edwin Williams' work on predication structures (see Williams 1994:1-2, 46-47 for brief discussion and further references), such as the relevance of *John seems sick* for issues relating to raising, control, and predication. Williams takes the complex [*seems sick*] as the relevant predicate, "by virtue of the predicate *sick*" (p. 2). In other words, *seem* does not serve a purely raising function void of any theta-structure, as opposed to *John seems to X* (as in (77a-b)). One of the properties of such pure raising predicates, I take it, is allowing for an equivalent expletive structure, as shown in (77'a-f). These are well-formed and semantically synonymous to (77a-b), but ungrammatical for (77c-d). The interesting case for present purposes concerns (77e-f): the expletive equivalents are grammatically well formed, but not synonymous.

One way to interpret this state of affairs is to say that *seem* in (77e-f) is not a raising predicate, but some other predicational element—possibly a control verb under the current understanding, in the sense that it makes available its own Θ-Domain. This is obviously the route I want to suggest for the cases above, i.e. (73b-c). In other words, the derivational history of these sentences is not the one depicted in (75) and (76), but (78) and (79), respectively:

(78) [$_{\Phi\Delta 1}$ John [$_{\Theta\Delta 1}$ ~~John~~ wants [$_{\Phi\Delta 2}$ Ø to [$_{\Theta\Delta 2}$ ~~John~~ seem [$_{\Phi\Delta 3}$ Ø to [$_{\Theta\Delta 3}$ ~~John~~ kiss Mary]]]]]]

(79) [$_{\Phi\Delta 1}$ John [$_{\Theta\Delta 1}$ ~~John~~ wants [$_{\Phi\Delta 2}$ Ø to [$_{\Theta\Delta 2}$ ~~John~~ seem [$_{\Phi\Delta 3}$ Ø to [$_{\Theta\Delta 3}$ ~~John~~ try [$_{\Phi\Delta 4}$ Ø to [$_{\Theta\Delta 4}$ ~~John~~ appear [$_{\Phi\Delta 5}$ Ø to [$_{\Theta\Delta 5}$ ~~John~~ kiss Mary]]]]]]]]]

Just as *John* cannot be a 'seemer' in pure raising contexts, he may be a 'seemer' when embedded under a control predicate. This amounts to saying that *seem* has two lexical entries, one without an external argument (in which case the subject may be an expletive) and one with an external argument (in the relevant cases considered here, a 'seemer' or an 'appearer' of X is someone "who is trying to give the impression that X").

We can now conclude that the Intra- and Inter-Clausal Movement Generalizations yield the desired results for all traditional domains of successive-cyclicity (Wh-movement, subject raising, derivational control structures), including a well-defined intermingling of these. Next, I will scrutinize raising to object (Postal 1974), also known as "exceptional" Case-marking (Chomsky 1981 and subsequent work in the Principles and Parameters Theory), along these lines.

4.6 Exceptional Case-Marking: Raising to Object

At this point, a puzzle materializes.[28] A derivational account of reflexives as sketched in section 3.1 raises the question how reflexive ECM-subjects might be derived under present assumptions. If (local) reflexives were always the result of Copy Spell Out within the same Θ-Domain, it would not immediately be clear how *himself* could be introduced into the derivation in (80b):

(80) a. John expects Mary to win the race.
b. John expects himself to win the race.

In traditional GB-analyses, ECM-structures like (80a) would receive the following derivation:

(81) [$_{IP}$ John I [$_{vP}$ ~~John~~ *v* [$_{VP}$ expects [$_{IP}$ Mary to-I [$_{vP}$ ~~Mary~~ *v* [$_{VP}$ win the race]]]]]]

However, given the abolishment of government as a configuration that licenses Case-assignment, a minimalist approach to ECM-constructions needs to account for the "exceptional" accusative case-marking on ECM-subjects. There are basically three types of explanation available. First, the ECM-subject could covertly move to the matrix accusative position, such

[28] Thanks to Richard Larson for originally bringing these cases to my attention.

as [Spec,AgrOP] (Lasnik & Saito 1993); in this variant, the Case-features of the ECM-subject would be licensed at LF. Second, it could optionally move overtly to this position (advocated by a large body of early minimalist literature; see Lasnik 1999 for discussion and references). Third, the overt movement into matrix [Spec,AgrOP] could be obligatory (as argued for by Koizumi 1993, 1995, Lasnik 1995a, 1995b, 2003, Bo‰koviç 1997a, 2002, and others). Under these considerations, there is nothing "exceptional" about accusative case-marking: the embedded (thematic) subject receives accusative case because it is the (grammatical) object of the matrix/Case-licensing clause.

Either way we go, an approach that checks accusative case of the ECM-subject in the matrix clause would yield

(82) as the underlying derivation for (80a), rather than (81)—where the relevant movement step takes place in the overt or covert component. (Ignore the status of '?', which is some position higher than AgrOP; identification of '?' shall be of no concern— among other things, it also depends on how head movement is treated.)

(82) [$_{IP}$ John I [$_{?P}$ expects-? [$_{AgrOP}$ Mary AgrO [$_{vP}$ ~~John~~ *v* [$_{VP}$ V [$_{IP}$ ~~Mary~~ to-I win the race]]]]]]

If local anaphors are the result of a Domain-internal movement step (through Copy Spell Out applying to an otherwise illegitimate copy), and if matrix and ECM-subject are not part of the same Θ-Domain in which this movement step could take place (viz. *John likes himself*), this Domain-internal movement step could in theory occur at a later point.

To derive reflexive ECM-subjects, one could thus imagine one of the following derivations (only relevant parts shown), where the locus of Copy Spell Out is actually the matrix Φ-Domain:

(83) a. [$_{IP}$ John expects [$_{AgrOP}$ ~~John~~ ➲ himself [$_{vP}$ ~~John~~ [$_{VP}$ [$_{IP}$ ~~John~~ to [$_{vP}$ ~~John~~ …]]]]]]

b. [$_{IP}$ John expects [$_{AgrOP}$ ~~John~~ ➲ himself [$_{vP}$ ~~John~~ [$_{VP}$ [$_{IP}$ to [$_{vP}$ ~~John~~ …]]]]]]

This route would allow us to keep the analysis that local anaphors are the result of Copy Spell Out, applying to the lower of two copies resulting from movement within one and the same Prolific Domain. The way local anaphors in simple clauses differ from reflexive subjects of ECM-complements is the type of Prolific Domain that hosts the relevant movement step: Θ- vs. Φ-Domain.

If this line of explanation is on the right track, it would serve as another argument that movement of the embedded subject of deficient structures (such as ECM complements) into (the object position of) the matrix clause

may take place overtly—after all, the reflexive ECM-subject in (80b) shows up as a reflexive at the point of pronunciation, thus the derivational step that results in Copy Spell Out must take place in the overt component. We can hence eliminate the hypothesis that such elements move exclusively in the covert component.

In sum, this section has shown how successive-cyclic movement proper, what I have called "generalized Comp-to-Comp" above, can be handled. It turns out that movement across clause boundaries behaves well with respect to the Inter-Clausal Movement Generalization, which on a par with the Intra-Clausal Movement Generalization, unambiguously predicts intermediate steps in terms of Prolific Domains, the main focus here. The discussion addressed long-distance Wh- and raising dependencies in terms of successive-cyclic A'- and A-movement, respectively, and introduced (successive-cyclic) Θ-movement to derive control structures. It was further applied to get a handle on reflexive subjects in raising-to-object/ECM structures, intermingling with the Intra-Clausal Movement Generalization once again.[29]

5. (Anti-)Locality and an Ontology of Movement Dependencies

In this section, I want to examine how we can make theoretical capital out of the two main generalizations suggested in this article (the Intra- and Inter-Clausal Movement Generalizations), among other things by uniting the two types of locality employed (Standard and Anti-Locality) and end with a brief summary of the core results achieved in this study. Before going there, however, one further type of movement dependency enters the equation: I will extend the ontology of (Θ-/A-/A'-)movement dependencies by integrating sideward movement into the current framework.

5.1 Sideward Movement

[29] In Grohmann 2001, I investigate the role of Prolific Domains in small clause structures and integrate the results into the current framework in sync with this section (see also Grohmann 2003c:chap. 8). There are two noteworthy issues involved. First, that investigation rigorously follows up on the reasoning and justification of the framework presented so far, and in this sense particularly ties in with the preceding discussion of ECM-structures (such as the role of reflexivization in *John considers himself an idiot*). Second, exploring small clauses provides us with evidence for the applicability of a Domain-driven framework in structures that are strictly speaking not or at least not fully clausal (i.e. regarding the existence of Prolific Domains in these structures). (On this note, see Grohmann & Haegeman 2002 and Grohmann 2003c:chap. 7 for further non-clausal explorations of Prolific Domains, within the Germanic DP, and Ticio 2003 for applying the Anti-Locality framework to the nominal layer in Spanish.)

Sideward movement (Nunes 1995) denotes a type of displacement that, although made up of Copy and Merge, does not conform to Move in obvious ways.[30] The most blatant violation is that the landing site of the operation does not c-command its launching position. On the other hand, sideward movement does allow for a reduction of theoretical constructs whose only purpose is to create a dependency that conforms to all other ingredients of the theory of grammar we pursue—except a good handle on movement. For this purpose, notions like PRO, chains, null operator, and the like have been introduced and reached a status of "real objects" (see Hornstein 2001 for a critical survey). Since I have followed the Hornsteinian program driven by methodological economy throughout, I adopt sideward movement as a grammatical operation made available and put it, concisely so, into current perspective.

Nunes' starting point is the assumption that within a copy theory of movement, revived in Chomsky 1993, Move is not a primitive operation, but the result of the combination of independently needed operations. Piggy-backing on the discussion above, these are Copy and Merge.[31] Nunes provides a derivational analysis for the parasitic gap construction (PG), which has robustly resisted one for many reasons that cannot be reviewed here (see e.g. Taraldsen 1981, Chomsky 1982, Engdahl 1983 for early and Nissenbaum 2000 or the collection of papers in Culicover & Postal 2001 for more recent discussion).

One of the most salient properties of PG-constructions is that a matrix A'-moved element is thematically marked by both the matrix verb and a predicate inside an adjunct; common Move cannot apply as the matrix Θ-position does not c-command any position within the adjunct, as in (84a). This follows if we assume, quite reasonably, that these adjunct clauses are

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[30] See also Nunes 2001, 2003. Since its original inception, sideward movement has been adapted to a number of unrelated phenomena, such as adjunct control, and relativization, *tough*-movement, or other null-operator constructions (Hornstein 2001), across-the-board phenomena (Hornstein & Nunes 2002), issues pertaining to extraction domains (Nunes & Uriagereka 2000), PRO gate effects (Kiguchi 2002, Hornstein & Kiguchi 2003), *donkey*-anaphora (Boeckx 2000b), antecedent-resumptive relations (Kayne 2002), head movement (Bobaljik & Brown 1997), and others.

Some examples of these are illustrated in (i):

(i) a. John$_i$ kissed Mary [without PRO$_i$ knowing her].
b. Mary$_i$ is easy [(for John) to kiss e_i].
c. the girl$_i$ [OP$_i$ that John kissed t_i]
d. [Which book]$_i$ did [you review t_i] and [your assistant read t_i]?

If the integration of sideward movement suggested below is rewarding, these cases and others should be analysed successfully on a par.

[31] For Nunes, the operation Delete is also an ingredient of Move and so is Form Chain, crucially so even (Nunes 1999, 2001). The role of these additional as well as the more basic operations mentioned in the text is reviewed and further developed in Hornstein 2001. As assumed throughout, and very much in line with Hornstein, I take copy deletion to be deterministic (hence not requiring a grammatical operation) and the formation of chains superfluous (see also Kiguchi 2002).

attached higher than the matrix internal, though lower than the external, argument position.

This assumption predicts, among other things, that external arguments, as in (84b), make poor participants in PG-structures (see Nunes' or Hornstein's discussion for details and references[32]). (In the following examples, *t* represents the relevant real, *pg* the parasitic gap.)

(84) a. Which book did you review *t* before they published *pg*?
b. *Who will *t* review *Prolific Domains* before they asked *pg*?

The sideward movement analysis proceeds as follows (details set aside, following the assumptions made throughout this paper). First, the material that is later to become the adjunct clause is assembled from the numeration N in (85a), simplified for presentational purposes, and the derivation proceeds to build it up. Nunes assumes it to be PP, Hornstein hints at its potentially being CP; for reasons that will become obvious presently, I tentatively adopt the latter. The Wh-phrase is assembled and merged with *published*, forming VP, and the structure is derived as usual up to the point of CP (headed by *before*), into whose specifiers *which book* moves. We are now at the derivational time step (85a). Next, Copy *which book* applies, leaving it in the derivational workspace until needed, and the initial numeration is reduced to N'; the two parallel workspaces on top of the assembled CP are shown in (85c), signaled by '||'. Selecting *review* from N' requires an object to merge with. As there is no appropriate element left in the numeration, *which book* is merged from the workspace, yielding (85d). Once VP is created, CP may be merged as the adjunct, (85e), again taken from the derivational workspace we need anyway. The remainder of the derivation emptying N' is once again business as usual, leading to (85f): the numeration is exhausted and the derivation converges; the outcome is (84a). Consider in detail:

(85) a. N = {*which*$_1$, *book*$_1$, C$_2$, *did*$_1$, I$_2$, AgrO$_2$, *v*$_2$, *you*$_1$, *review*$_1$, *before*$_1$, *they*$_1$, *published*$_1$}
b. [$_{CP}$ ~~which book~~ before [$_{IP}$ they I [$_{AgrOP}$ ~~which book~~ AgrO [$_{vP}$ ~~they~~ *v* [$_{VP}$ published ~~which book~~]]]]]
c. *which book* || N' = {*which*$_0$, *book*$_0$, C$_1$, *did*$_1$, I$_1$, AgrO$_1$, *v*$_1$, *you*$_1$, *review*$_1$, *before*$_0$, *they*$_0$, *published*$_0$}
d. [$_{VP}$ review which book]
e. [$_{VP}$ [$_{VP}$ review which book] [$_{CP}$ ~~which book~~ before [$_{IP}$ they I [$_{AgrOP}$ ~~which book~~ AgrO [$_{vP}$ ~~they~~ *v* [$_{VP}$ published ~~which book~~]]]]]]
f. [$_{CP}$ which book did [$_{IP}$ you I [$_{AgrOP}$ ~~which book~~ AgrO [$_{vP}$ ~~you~~ *v* [$_{VP}$ [$_{VP}$ review ~~**which book**~~] [$_{CP}$ ~~**which book**~~ before [$_{IP}$ they I [$_{AgrOP}$

[32] See Hornstein & Nunes 2002 for a more recent condensed presentation (pp. 29-32) and Nunes & Uriagereka 2000 on some consequences.

~~which book~~ AgrO [$_{vP}$ ~~they~~ *v* [$_{VP}$ published ~~which book~~]]]]]]]]]]

Two issues are at stake for the Anti-Locality framework. One concerns movement into matrix [Spec,AgrOP] (part of the step in (85b), the other movement from [Spec,CP] to the complement position of the matrix verb (as indicated in boldface in (85f)). The reason why the second issue would be particularly interesting is obvious. As for the first point, the problem is that PGs are subject to an anti-c-command requirement (Taraldsen 1981, Engdahl 1983): the parasitic gap *pg* cannot be c-commanded by a real gap, be it the original *t* in (84b) or, apparently, any other copy/trace of it.

For reasons of space and relevance, I discard the second disjunction: anti-c-command concerns only the "original" real gap, i.e. the merging site of the sidewards moved element, not any subsequent traces/copies. This suffices to rule out subject PGs (though see Nissenbaum 2000 for an alternative view). Whatever property this requirement follows from, and further complication, do not concern me at this point. Let me then consider the issue of sideward movement itself, targeting the matrix Θ-Domain.

Turning thus our attention to Prolific Domains, the relevant structure of (84a) is (86), where '◬' indicates the merging site of the adjunct clause:[33]

(86) [$_{\Omega\Delta}$ which book did [$_{\Phi\Delta}$ you **~~which book~~** [$_{\Theta\Delta}$ ~~you~~ **Δ** review ~~which book~~ [$_{\Omega\Delta}$ ~~which book~~ before [$_{\Phi\Delta}$ they **~~which book~~** [$_{\Theta\Delta}$ ~~they~~ published ~~which book~~]]]]]]

The boldfaced copies in (86) correlate with a position within the Φ-Domain (a consequence of intra-clausal movement in both clauses). Neither Nunes nor Hornstein explicitly assume these steps, but they are not interested in present pursuits; I believe it would do no harm to either author if (85f), the more traditional, were indeed the finer articulated derivational history for PGs. Addressing specifically this issue, but also the one regarding the nature (and motivation) of sideward movement, I want to briefly consider two ways of integrating sideward movement with the (Anti-)Locality understanding of successive-cyclic movement qua the Intra- and Inter-Clausal Movement Generalizations—a weak thesis and a strong thesis.

The weak thesis does not impose the applicability of the Intra-Clausal Movement Generalization to an element that is to move sidewards. The Wh-phrase licensing a parasitic gap, for example, would move to the matrix Θ-position in one go, akin to inter-clausal movement, but with the difference that this movement takes place sidewards, across workspaces. As for why it is that the Θ-Domain is targeted, we can follow Hornstein's

[33] It is not clear whether the adjunct should be adjoined to VP or *v*P (see Hornstein 2001 for more discussion). I assume the former site as it also immediately rules out subject-PGs (but see Nissenbaum 2000).

(2001) account: Greed. In particular, Hornstein argues for a Greed-driven implementation of not only Move, but Merge as well.

> We have assumed that movement is greedy. In other words, every application of MOVE must result in some feature of the copy or the target getting checked. We have also assumed that θ-roles count for GREED. Sideward movement of arguments is greedy as the movement is to a θ-position. (p. 79).

This basic assumption also gives us the fact that sideward movement of adjuncts is illicit or, as Hornstein continues, "[t]he upshot is that we can directly explain why adjuncts cannot license PGs if PGs are formed by sideward movement."[34]

The strong thesis incorporates intra-clausal movement of the element prior to sideward movement. In the larger picture, a sidewards moved element is the only syntactic object that undergoes two complete "cycles" by intra-clausally moving all the way from its base-generated Θ- to an Ω-position in one clause, and then, once hopped across the workspace, again in another clause. The explanation just given for the driving force for targeting the Θ-Domain can be retained. At this point, choosing between the weak and the strong thesis is not important. Personally, I favour the strong thesis, but this would have to be verified empirically.[35]

As for the empirical discussion at hand, I do not have more to add to this discussion of sideward movement (of course there are many more cases, but space does not permit a more in-depth treatment), and the conceptual groundwork should be equally transparent. Moreover, this movement operation does have a place in the present double-locality driven framework. Analytically, however, there is one issue that needs to be addressed, hinted at above: how, if at all, does sideward movement fit in with the ontology of movement dependencies pursued so far? Neither the Nunes-Hornstein line without nor my adaptation with the intermediate movement step within the clause of origin of a sidewards-moving element could account for movement into a Θ-position, since the launching site is invariably a position within the Ω-Domain (at least under the strong thesis).

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[34] It is not true that no adjunct may license a parasitic gap; it is just that true adjuncts cannot, while quasi-argumental elements may indeed:

(i) a. *Why would you read *Prolific Domains t* after he reviewed it *pg*?
b. Where did John live *t* before he slept *pg* (yesterday)?

Without pursuing this issue any further, we can observe that *why* cannot be construed with the adjunct clause in (ia), regardless of the correct origin of it (*t/pg*), while *where* in (ib) can, inviting an answer like "In his aunt's house" (a reading facilitated by the adverb).

[35] In fact, Kiguchi (2002) argues for something similar to the weak thesis, at least in spirit (he does not adopt the Anti-Locality framework or the generalizations motivated here). He analyses sideward movement to be able to target any position, i.e. within Θ-, Φ- or Ω-Domain, and be launched from any as well. This is even more radical than the weak thesis expresses as it also has consequences for an implementation of sideward movement under the current understanding. I leave these issues open for now.

5.2 An Ontology of Derivational Dependencies

Standing in for a summary, (O1) through (O3) offer a clean ontology of derivational dependencies, following the entire preceding discussion:

(O1) *Intra-Clausal Movement*
  a. A-movement: from Θ- to Φ-Domain
  b. A'-movement of non-arguments: from Φ- to Ω-Domain
  c. A'-movement of arguments: from Θ- to Φ- to Ω-Domain

(O2) *Inter-Clausal Movement*
  a. successive-cyclic A'-movement: from Ω-Domain to Ω-Domain
  b. successive-cyclic A-movement: from Φ-Domain to Φ-Domain
  c. successive-cyclic Θ-movement: from Θ-Domain to Θ-Domain

(O3) *Sideward Movement*
  movement targeting Θ-Domain merged next in workspace (*weak*)
  movement from Ω- to Θ-Domain merged next in workspace (*strong*)

5.3 Towards a Theory of Intra- and Inter-Clausal Movement

If the proposal put forth in this article is correct, there are two apparently different restrictions on the formation of dependencies: one prohibits movement that covers too long a distance (for example, through Relativized Minimality, viz. Standard Locality) and one prohibits movement that covers too short a distance (through the Condition on Domain Exclusivity, viz. Anti-Locality). Two natural questions at this point, I take it, would be (N1) and (N2):

(N1) Is there one locality condition in grammar or are there two ?
(N2) How, if at all, do Standard and Anti-Locality go together?

The answer assumed tacitly throughout was that the formal tripartition of the clause into Prolific Domains allows us both to formulate an account of Anti-Locality (through the Inter-Clausal Movement Generalization) and to integrate Standard Locality (Intra-Clausal Movement Generalization). I considered a variety of structures whose derivational steps underlie the formation of simple clauses vis-à-vis clause-internal or *intra*-clausal movement and more complex structures involving movement across clause boundaries, *inter*-clausal movement. In a nutshell, the former forces movement to always target *a position within the next higher Prolific Domain*, while the latter targets *a position within the Prolific Domain of the same type in the next higher clause*. Such a view on (movement)

dependencies allowed me to generalize cyclic movement to all types of displacement.

Unfortunately, as repeatedly admitted, these generalizations are just generalizations. It may be the case that there is something to them, that derivational dependencies are indeed formed along these lines. But Standard and Anti-Locality do not explicitly derive these generalizations. I leave this task for another time, hasting to add that there are a number of ways to proceed,[36] and also other reasons to assume that there is something to the two generalizations and a deeper connection to the grammar resumption saves locality violations. One relevant, interesting connection concerns resumption. In the Anti-Locality framework, I argue for Copy Spell Out in some instances of resumption contexts, those in which the "antecedent" and the "resumptive" are too close to one another (applicable at least to contrastive left dislocation in German). In traditional resumption contexts, such as Hebrew relativization and many other phenomena, the pronoun is inserted because here the antecedent cannot move; the reason it cannot move may be an intervening island or simply because the distance is too long, violating locality conditions.

Aside from pursuing some form of a Copy Spell Out approach to these cases (see Pesetsky 1998, Boeckx 2001, Kayne 2001, among others), the following characterization evolves: the grammar has the means to resume a dependency if it would otherwise lead to a violation of locality. In other words, resumptive elements are introduced into the structure to save a locality violation that would otherwise arise—and understanding locality in two ways, with a lower bound (Anti-Locality) and an upper bound on the distance between two positions in a dependency (Standard Locality), surprisingly captures these means in a unified fashion.

We can summarize the main points of this article as follows:

(Z1) Resumption serves as the clearest link between Standard and Anti-Locality: it always takes place to save a potential locality violation.
(Z2) Standard and Anti-Locality conspire to fit derivational dependencies into the Intra- and Inter-Clausal Movement Generalizations and (Z1).
(Z3) Successive cyclicity is not a product of stipulations outside Bare Output Conditions/virtual conceptual necessity or assumptions on particular positions, but a property of movement itself: (Z2).

[36] As Joachim Sabel (p.c.) observes, the generalizations—and empirical cases considered—bear a resemblance to the Uniformity Condition (Browning 1991, Chomsky 1993, Chomsky & Lasnik 1993). Uniformity is typically expressed to hold over chains, a construct I do not adopt here in the formal sense vis-à-vis a "real" object, as it seems to violate the Inclusiveness Condition (see Hornstein 1998, 2001:67, fn. 49, and especially Kiguchi 2002, but also Chametzky 2000:116 for critical discussion). I leave open the possibility to reformulate Uniformity in non-representational ways without evoking the notion of chain, or any other alternative route one might pursue to formalize the symmetry in locality.

(Z4) A clean ontology of derivational Θ-, Φ- and Ω-dependencies can be formulated and even integrate sideward movement by (Z3).

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