A-MOVEMENT AND THE EPP

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Abstract. The article argues that the EPP should be eliminated. It is shown that in a number of constructions the EPP does not hold at all. Where it does appear to hold, its effects follow from independent mechanisms of the grammar. EPP effects concerning the final landing site of A-movement follow from Case theory. Intermediate [Spec,IP]s are filled as a result of the requirement of successive cyclicity (i.e., locality); otherwise they remain empty, which is unexpected if the EPP were to hold. In particular, intermediate [Spec,IP]s remain empty in constructions involving expletive subjects, which I argue do not move at all. It is also argued that the requirement of successive cyclicity should not be tied to a property of intermediate heads, as in the feature-checking/filled-specifier requirement approach to successive cyclicity, but to a property of the movement itself.

1. Introduction

The Extended Projection Principle (EPP) has been in the center of theorizing within the government and binding, principles and parameters, and minimalist frameworks ever since Chomsky (1981, 1982; see also Perlmutter 1971) proposed it, which is not surprising given that movement to subject position plays a central role in the theory. Chomsky proposed the EPP, which requires that all clauses have a subject, to account for the ungrammaticality of constructions like (1).[1]

(1)   *Is likely that Peter likes Mary.

The stipulatory nature of the EPP was immediately obvious and gave rise to several attempts to deduce it from deeper principles. Thus, several authors have tried to make the EPP follow from semantic/pragmatic considerations. For example, Rothstein (1983) argues that EPP effects completely follow from *predication*—more precisely, the requirement that predicates be saturated (for relevant discussion, see also Heycock 1994 and Stowell 1983). Under the standard semantic view of predication,[2] the EPP would then follow from a deep, semantic requirement. An obvious problem for this

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[1] The term *Extended Projection Principle* is a misnomer, because the EPP seems quite different from the Projection Principle, which requires that lexical properties of lexical items be satisfied at all levels.

[2] Rothstein does not confine herself to this view.

approach is raised by the fact that the EPP can be satisfied by semantically null elements like the expletives *there* and *it*.[3]

(2)   a.   It is likely that Peter likes Mary.
       b.   There is someone in the garden.

Chomsky (1995 MIT class lectures) suggests that EPP effects are a result of a universal thematization requirement. This approach also faces the problem of why the EPP is not violated in constructions like (2), where the matrix-clause subject position is filled by a semantically dummy element. Furthermore, it is simply incorrect that every sentence must have a theme. For example, the sentence in (4) does not contain a theme if it is an answer to the question in (3). (The whole sentence is focalized in the context in question.)

(3)   What happened?

(4)   Mary kissed John.

I conclude, therefore, that semantic/pragmatic approaches have not brought us any closer to understanding the nature of the EPP.

   Among formal approaches to the EPP, which easily handle expletive constructions like (2), stands out Chomsky's (1995) approach, in which the EPP is a result of a feature-checking (i.e., morphological) requirement; more precisely, the requirement that the N-feature (or D-feature) of Infl be checked overtly, formalized by considering the relevant feature to be strong in Chomsky's (1995) sense. Chomsky (1999, 2000), on the other hand, states the EPP property as a requirement to have an overtly filled specifier, thus essentially going back to his earlier (1981, 1982) approach.

   Lasnik (2001a,b) provides empirical evidence for the superiority of the filled-specifier approach over the feature-checking approach. Lasnik's argument is based on the pseudogapping construction, exemplified by (5).

(5)   Peter read a book and Mary did a magazine$_i$ [$_{VP}$ ~~read t_i~~].

Lasnik analyzes pseudogapping constructions like (5) as involving VP ellipsis, which he assumes involves PF deletion, with the remnant of pseudogapping moving out of the VP prior to the ellipsis via object shift; that is, overt movement to [Spec,Agr$_O$P]. Lasnik's analysis is based on the assumption that English has overt object shift, for which he provides considerable evidence (see also the discussion below). Under the overt object-shift analysis, the verb must undergo short V-movement in English, which places it in front of the shifted object. If the verb does not raise in front

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[3] Some of the standard arguments in support of the semantically dummy status of these elements concern the fact that these elements cannot be questioned and contrastively focused, which immediately follows if the elements in question are semantically dummy.

of the shifted object, we get an ungrammatical construction, as illustrated by (6a,b), which contrast with (7).

(6) a. *Peter a magazine read.
     b. *Peter did a magazine read.

(7) Peter read the magazine.

Why, then, is (5) acceptable even though the verb apparently does not move in front of the shifted object, as it normally does in English? Lasnik provides two answers to the question. Because the short movement of the verb in (7) is overt, it must be driven by a strong feature. Assuming Chomsky's (1995:chap. 3) approach to strength, in which strength is treated as an illegitimate PF object, Lasnik (1995c) suggests that the relevant strong feature lies in the verb. Normally, the feature is eliminated through checking, as in (7). Lasnik observes that, in (5), the feature is eliminated from the structure through the operation of PF ellipsis. As a result, it is not present in the final PF representation, on a par with (7) and in contrast to (6). Lasnik (2001a,b) suggests an alternative analysis that conforms to the purely Attract system, in which the formal inadequacy driving movement always lies in the target. The alternative analysis is based on Chomsky's Two Movements Hypothesis (1995:chap. 4; see also Ochi 1998, 1999a,b), in which overt movement is a result of feature movement followed by pied-piping of the remnant category. Following Ochi, Lasnik assumes that the pied-piping takes place because the category from which formal features have moved is phonologically deficient. The deficiency is normally overcome by moving the category to a position in the vicinity of its formal features. Lasnik suggests that another way of dealing with the deficiency is simply to delete the deficient element in PF. This is what happens in (5). The verb undergoes formal feature movement in overt syntax. The remnant category's phonological deficiency would normally cause a PF crash. However, this does not happen in (5) because the remnant category is removed from the structure through PF deletion so that it is not present in the final PF representation.

It appears that this analysis incorrectly rules in (8).

(8) *Mary said she won't sleep, although will [$_{VP}$ she sleep].

Assume Chomsky's (1995:chap. 4) feature-checking approach to the EPP. Suppose we raise the formal features of *she*, checking the feature responsible for the EPP effect. We then delete the VP in PF, removing the now phonologically deficient element *she* from the final PF representation. It appears that nothing goes wrong with this derivation. Lasnik interprets this as an argument that the EPP is not merely a feature-checking requirement. Rather, what the EPP requires is that [Spec,IP] be filled; in other words, that a

clause have a subject. This brings us back to Chomsky's original conception of the EPP. It thus seems that twenty years of research concerning the EPP has not brought us any closer to understanding the nature of the EPP. In other words, we are back where we started. Given that no attempt to deduce the EPP from other mechanisms has worked, the next logical step seems to be to deny the EPP altogether. This is, in fact, the step taken by several authors in recent work, in particular, Boeckx (2000a), Castillo, Drury, and Grohmann (1999), Epstein and Seely (1999), Grohmann, Drury, and Castillo (2000), and Martin (1999). (The predecessors of this line of research are Borer 1986 and Fukui & Speas 1986.) This is also the approach I pursue in this article. The analysis to be endorsed is, however, quite different from the analysis argued for by the authors just cited. Although, like the authors in question, I argue that the EPP should be eliminated, I also argue that [Spec,IP] has to be filled in certain cases where it is not filled in the alternative analyses denying the EPP. As a result, several empirical problems that arise under the alternative analyses do not arise under the analysis presented in this article.

In the following sections, I discuss empirical arguments for the EPP. I separate these into two groups: final EPP, consisting of arguments that the final landing site of A-movement must be filled to satisfy the EPP; and intermediate EPP, consisting of arguments that intermediate [Spec,IP]s (i.e., [Spec,IP]s that are on the way of A-movement) must be filled to satisfy the EPP. In what follows I use the term "EPP" (with quotation marks) pretheoretically without presupposing that the EPP actually exists as an independent condition of the grammar. In other words, I use the term to refer to filling [Spec,IP] overtly, regardless of what is responsible for it—real EPP (i.e., the EPP without quotation marks) or something else.

2. "Final EPP"

2.1 BELIEVE

The general strategy in this section is to examine constructions that violate the EPP and consider whether the constructions in question can be accounted for if the EPP is eliminated from the grammar.

Probably the strongest argument for the final EPP involves the *BELIEVE*-class verbs discussed in Bošković 1997a. Consider first (9).

(9)   *[$_{IP}$ [$_{VP}$ Kissed John]].

The construction can be ruled out by appealing to the EPP. However, it can also be accounted for without invoking the EPP. The construction violates the θ-Criterion, because the subject θ-role of *kiss* is not assigned, as well as what I earlier referred to as the Inverse Case Filter (Bošković 1997a; the term is due to Howard Lasnik)—that is, the requirement that traditional Case assigners assign their Case features (Tense and nominative in (9)), which in

the checking theory can be interpreted as a feature-checking requirement.[4] In (1), repeated here as (10), the θ-Criterion is not violated. However, the construction can still be ruled out independently of the EPP by appealing to the Inverse Case Filter (see also Fukui & Speas 1986).

(10)   *Is likely that Peter likes Mary.

The same holds for (11) under the Case-theoretic approach to the distribution of PRO, on which the subject position of control infinitives is a Case position. More precisely, the construction is ruled out because the null Case of the embedded infinitival Tense cannot be assigned.[5]

(11)   *John tried to seem that Peter likes Mary.

A potential problem for the Inverse Case Filter is raised by quirky subject constructions such as Icelandic (12), which appears to invalidate the Inverse Case Filter.

(12)   Okkur var hjálpað.
       us.DAT was helped
       'We were helped.'

However, a number of authors (see Belletti 1988, Chomsky 2000:127, Cowper 1988, Frampton & Gutmann 1999, and Freidin & Sprouse 1991, among others) have argued that quirky subjects have a structural Case, which is not morphologically realized, on top of the inherent case. The structural Case is checked against the nominative Case feature of T in (12). I will assume this as well.

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[4] See Bošković 1997a for arguments for the Inverse Case Filter. One argument for the Inverse Case Filter not noted there concerns constructions like (ia,b), which contrast with (iia–d). (For discussion of constructions like (i), see also Kayne 2000 and Larson 1985.)

   (i)   a.   *Mary loves here/there.
         b.   *Mary finds here/there interesting.

   (ii) a.   Mary loves it here/there.
         b.   Mary loves this/that place.
         c.   Mary finds it interesting here/there.
         d.   Mary finds this/that place interesting.

Given the natural assumption that *here* and *there* are not Case marked, (ia,b) are ruled out by the Inverse Case Filter because the accusative Case feature of the verb cannot be assigned. The Inverse Case Filter problem does not arise in (ii) (see also Authier 1991 for an Inverse Case Filter approach to object expletives).

[5] For the null Case approach, see Bošković 1997a, Chomsky and Lasnik 1993, Martin 1996, 2001, and Ormazabal 1995, among others. I assume that, as discussed in Martin 1996, 2001, the control infinitival Infl is specified as [+Tense] and assigns null Case. (This is not the case with the ECM infinitival Infl, which is specified as [–Tense].)

   The infinitival [Spec,IP] position in (11) could actually be filled by PRO, in which case neither the EPP nor the Inverse Case Filter would be violated in (11). However, on this derivation, (11) is ruled out by whatever is responsible for the well-known ban on expletive PRO. (See also Hornstein 2001 for an account of (11) under the movement into a θ-position approach to control.)

Consider now (13).

(13) a.   *Was told Mary that Peter left.
      b.   *John believes to have been told Mary that Peter left.

The constructions in (13) can be ruled out by the Inverse Case Filter if we assume that both nominative and accusative must be checked overtly (not through Agree or Move F). This is, in fact, what the authors arguing for eliminating the EPP as an independent principle assume. (See Epstein & Seely 1999:64–65, 72–73 and Martin 1999. Boeckx 2000a:38 and Castillo, Drury & Grohmann 1999:23 differ somewhat. See also Bejar & Massam 1999, who argue that covert Case checking quite generally does not exist.) It follows that English has overt object shift (i.e., overt movement of accusative NPs to their Case-checking position outside of the VP, which *Mary* in (13b) fails to undergo), a position argued for by a number of authors (see Authier 1991; Bošković 1997a,b; Johnson 1991; Koizumi 1995; Lasnik 1995b,c; McCloskey 2000; Runner 1998; and Ura 1993, among others).

Epstein and Seely (1999) and Boeckx (2000a) propose accounts of why Case features cannot be checked by Agree or Move F. Thus, assuming that features can be checked (i.e., probed) only under c-command, Epstein and Seely observe that when elements Y and Z have to check against each other an uninterpretable feature X (i.e., a feature that is uninterpretable on both Z and Y, which is the situation with Case features), X can be checked on both Y and Z only if the two at some point undergo Spec-head agreement. Given that covert checking involves Agree (or Move F, for that matter), it follows that Case checking must be done overtly. Whereas a traditional Case assigner c-commands the traditional Case assignee and therefore can ''probe'' the Case assigner without category movement of the Case assignee to the specifier of the Case assigner, the traditional Case assignee does not c-command the Case assigner and hence cannot probe it without this movement. A Spec-head configuration thus needs to be established so that the Case assignee can c-command and probe the Case assigner.[6]

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[6] As I will discuss, expletive *there* is involved in Case checking upon merger in [Spec,IP]. Given that upon merger, a projection of Infl, whose Case feature *there* checks, c-commands *there*, I assume that Infl can probe *there*. It is worth noting here that the system I develop does not necessarily require banning Case licensing without overt movement for all languages (which the Epstein & Seely proposal summarized in the text appears to do); that is, there could still be crosslinguistic variation in the relevant respect.

Notice that I will remain silent in this article on φ-feature licensing. I assume that if it is done through feature checking it is done through Agree (or LF Move F), hence does not induce overt movement, which is what I am concerned with in this article. (φ-feature licensing clearly does not require a Spec-head configuration, as can be seen in expletive constructions like *There are some women in the garden*.)

It is also worth noting here that the EPP must involve some kind of feature checking/matching/ agreement, given that it is not the case that anything can satisfy it, as shown by the ungrammaticality of (i).

(i)   *[IP [Because Mary had left] [I′ arrived someone]].

Consider now (14) and (15).

(14) *John believes to have seemed Peter was ill.

(15)   John BELIEVES to have seemed Peter was ill.

The sentence in (14) can be ruled out without appealing to the EPP by the Inverse Case Filter because the accusative Case of *believe* remains unassigned. A question arises whether there is a verb that is just like *believe* except that it does not assign Case. Following the standard practice, I use capital letters for Caseless counterparts of actual verbs that do assign Case. If there is no EPP, it seems that we would expect structures like (15) to be acceptable. In Bošković 1997a, I discuss the *BELIEVE*-class extensively. In English, the class is instantiated by verbs like *conjecture*, which patterns with *believe* in all relevant respects except that it does not assign Case, as indicated by the fact that it cannot take an NP complement (see (16)), and the passive *believe* and the noun *belief*, both of which differ from active *believe* in that they do not assign Case. As discussed in Bošković 1997a, if we replace *BELIEVE* from (15) with one of its instantiations we get ungrammatical constructions, as shown in (17).

(16) *John conjectured it/something. (cf. John conjectured that Peter was ill.)

(17) a.   *the belief to have seemed Peter was ill
      b.   *To have seemed Peter was ill is believed.
      c.   *John conjectured to have seemed Peter was ill.

The Inverse Case Filter cannot help us with (17). The *BELIEVE* problem (i.e., the ungrammaticality of the examples in (17)) can be resolved given the EPP. Assuming the EPP, all the constructions in (17) are ruled out because the

This is actually implied even in Chomsky's (1999, 2000) system, where Agree is a component of the composite operation Move (see Chomsky 2000:122, 135, 138) and the EPP is considered to be some kind of a selectional feature (see Chomsky 1999:8, 34; 2000:122). (PPs are sometimes suggested to be able to satisfy the EPP. However, Bresnan 1991 and Conway 1996 convincingly argue that the PPs that appear to be able to do so, as in *I consider under the bed to be a good place to hide*, are actually NPs with an elided head; [NP *place under the bed*] for the PP in question.)

What is special about the EPP feature checking/matching is that it has to be done in a Spec-head relation, which is what Epstein and Seely (1999) and Boeckx (2000a) assume also to be the case with Case features (this state of affairs being deducible in the case of Case features, according to the authors in question). Given the similarity, does the deduction of EPP effects from the Inverse Case Filter represent progress? It does. Given that Case is needed independently, hence not eliminable, the deduction still leads to the simplification of the grammar, by elimination of a mechanism. On the more empirical side, I will show that, in several environments, clauses whose Infl head is Caseless lack a specifier, a state of affairs that shows that the deduction of EPP effects from the Inverse Case Filter is empirically superior to the EPP itself. In other words, I will show that the EPP must be eliminated from the grammar on empirical grounds. It is important to bear this in mind.

infinitival [Spec,IP] is not filled.[7] In Bošković 1997a, I took the ungrammaticality of (17), or more precisely, the fact that there are no grammatical constructions of the type illustrated in (15), to provide evidence for the final EPP. In fact, this seems to be the strongest empirical argument for the final EPP and perhaps for the EPP in general. It is, however, worth noting that most of the constructions with empty subject positions discussed earlier (e.g., (9)–(11), (13), and (14)) are ruled out independently of the EPP. The fact that the EPP rules them out redundantly can be, and should be, taken as an argument against the EPP.

A potential problem for the EPP account of (17) is raised by (18).

(18) a.   *the belief there to have seemed someone was ill
      b.   *There to have seemed someone was ill is believed.
      c.   *John conjectured there to have seemed someone was ill.

In (18), *there* is located in the infinitival subject position, satisfying the EPP. However, the constructions are still unacceptable. The fact that (18a–c), where the EPP is satisfied, are ungrammatical can be interpreted as indicating that something other than the EPP is responsible for the ungrammaticality of (17). Could it be that *there*-insertion leads to a violation in (18)? For Chomsky (1995), who assumes that *there* is Caseless, *there* insertion should not cause any violations in (18).[8] However, following Martin (1992), Lasnik (1995a,b), Bošković (1997a), and Epstein and Seely (1999), among others, and contra Chomsky (1995), I argue in section 5.5. that *there* needs Case. The sentences in (18) are then ruled out by the Case Filter, a problem that does not arise in (17). It thus looks like (18a–c) lead us to one of the following two conclusions: either the EPP is not responsible for the unacceptability of (17a–c), hence these constructions do not provide an argument for the EPP (see fn. 10); or *there* needs Case.

Another potential problem for the *BELIEVE* argument for the EPP is raised by the ungrammaticality of constructions like (19), discussed in Bošković 1997a.

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[7] Notice that the derivation on which the infinitival [Spec,IP] is filled by PRO, which satisfies the EPP, violates the ban on expletive PRO. Furthermore, the derivation violates the traditional Case Filter under the null Case approach to the distribution of PRO because the null Case of PRO cannot be licensed, the infinitival Infl being specified as [–Tense] (see fn. 5).

[8] The sentences in (18) may actually be ruled out in Chomsky's (1999, 2000) system. However, as noted in fn. 10, in this system (17a–c) are also ruled out independently of the EPP ((18a–c) are ruled out for essentially the same reason as (17a–c), which makes the above discussion of the role of the EPP in (17) and (18) irrelevant to this system). (The *BELIEVE*-class argument for the EPP simply does not hold in Chomsky's [1999, 2000] system.)

(19) a.   *the belief [Peter$_i$ to have seemed t_i was ill]
      b.   *the belief [Peter$_i$ to have seemed to t_i Mary was ill]
      c.   *[Peter$_i$ to have seemed t_i was ill] is believed.
      d.   *[Peter$_i$ to have seemed to t_i Mary was ill] is believed.
      e.   *John conjectured [Peter$_i$ to have seemed t_i was ill].
      f.   *John conjectured [Peter$_i$ to have seemed to t_i Mary was ill].

Apparently, we are not allowed to move *Peter* in (17) to satisfy the EPP. (Nothing else could motivate A-movement of *Peter* in (19).) The data in (17) and (19) lead to the conclusion that the EPP is real but that we cannot move an NP merely to satisfy the EPP. This is an extremely surprising state of affairs. If the EPP were a semantic/pragmatic requirement we could account for it. All we would need is to appeal to the widely held assumption that it is not possible to do movement in syntax for purely semantic/pragmatic considerations. However, we have seen that semantic/pragmatic approaches to the EPP face serious problems, the most blatant of which is the fact that the EPP can be satisfied by expletives, which indicates that the EPP is a formal requirement. What kind of a formal requirement is it that we are not allowed to do movement to satisfy it? There have been several attempts to deal with this question in the literature. In Bošković 1997a, I observe that this state of affairs can be captured by adopting Chomsky's (1995:chap. 3) Greed, which requires that X move only if the movement will help satisfy a requirement on X. (In fact, I interpreted the ungrammaticality of (19) as providing evidence for Greed.) However, in recent work, Greed as a proper formulation of Last Resort has been abandoned in favor of an Attract system, in which formal inadequacies driving movement always lie in the target of movement.[9] Lasnik (1995b) and Chomsky (1999, 2000; see also Frampton & Gutmann 1999) give alternative accounts of constructions like (19) based on the assumption that an element must have an unlicensed Case feature to be visible for A-movement. (Saying that X needs an unlicensed Case feature in order to undergo A-movement is actually pretty close to saying that A-movement takes place for Case reasons.) In addition to being stipulatory, the visibility account essentially reinstates Greed for A-movement (X can only undergo A-movement if the movement will help overcome an inadequacy of X; namely, license its Case-feature) and thus has no natural place in the Attract system.[10]

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[9] This has happened primarily because of the way locality restrictions on movement are stated and the question of look-ahead, which is more serious under Greed than under Attract, because a formal inadequacy driving movement can be eliminated as soon as it enters the structure under Attract but not under Greed.

[10] The visibility account also extends to (17), ruling these constructions out independently of the EPP, thus removing the *BELIEVE* argument for the EPP and making the above discussion irrelevant. Consider, for example, how (17a–c) would be treated in Chomsky's (1999, 2000) system. For Chomsky, independently of the EPP requirement the infinitival T in (17) has to check (defective) φ-features. φ-features are checked under Agree—they do not require overt movement to the specifier of the relevant head. The only NP that could check φ-features of the infinitival T

The mysterious property of the EPP of not being able to drive movement thus still remains to be accounted for in a principled way. The EPP seems to be the only formal requirement on the target that is apparently not allowed to drive movement. (In other words, we are not allowed to move solely to fix the EPP.) In this respect, the EPP is the sore thumb of the current theory.[11] The strongest argument for the EPP, which concerns the *BELIEVE*-class (see, however, fn. 10 for non-EPP accounts of the crucial data in (17)), is now starting to look like an argument against the EPP. The thing simply does not make sense.

2.2 Redundancies Accounted for

In Bošković 1997a, I provide an argument for the final EPP based on the paradigm in (20) and (21).

(20)   **Is likely John sleeps often.

(21)   *John is likely *t* sleeps often.

Although both (20) and (21) are unacceptable, as noted in Bošković 1997a, (20) appears to be worse than (21). In the current framework, degrees of ungrammaticality are generally dealt with in terms of either different types or number of constraints that are violated in a particular derivation. (For an excellent example of the latter, see Epstein 1990.) Given this and assuming the EPP, the difference in the degree of ungrammaticality between (20) and (21) can be accounted for. Whereas (21) violates only the Inverse Case Filter, (20) violates the Inverse Case Filter as well as the EPP. Thus (20) incurs the same violation as (21) does (an Inverse Case Filter violation) plus an additional violation, namely an EPP violation. However, the difference in the grammaticality between (20) and (21) can be accounted for even without appealing to the EPP. Chomsky (1995) suggests that certain features can survive checking; that is, they can undergo multiple feature checking. According to Chomsky, Case is not a feature of this type. Suppose, however,

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in (17) is *Peter*. However, the Case feature of the NP being already checked, this NP is not visible for the Agree relation, just like it is not visible for movement. The constructions in (17) are then ruled out independently of the EPP because φ-features of the infinitival Infl remain unchecked. (The same holds for Lasnik's [1995b] analysis.) For promising non-EPP accounts of the constructions in (17), the reader is also referred to Boeckx 2000a and Martin 1999.

[11] Chomsky (2000) actually extends the visibility approach, on which properties of the moving element must always be taken into consideration, to all movement, including A′-movement. (This is not the case with Lasnik 1995b.) However, the only empirical argument Chomsky gives for the visibility approach to movement concerns the EPP. Empirically, the visibility approach does not seem to be needed at all for A′-movement—it is motivated only by the EPP. In fact, as discussed by Saito (2000), who argues against the visibility approach altogether, the visibility approach creates serious problems when applied to A′-movement. Therefore, I will not adopt it here.

that having a Case feature survive checking (i.e., undergo multiple checking) gives a weaker violation than an Inverse Case Filter violation. We may then be able to account for the contrast between (20) and (21) by assuming that both involve a violation of the mechanism that is responsible for preventing a Case feature from undergoing multiple checking. Example (20) involves an additional violation—namely, a violation of the requirement that forces Case checking in English to take place overtly (i.e., in a Spec-head relation). It is also worth noting here that the grammaticality difference between (20) and (21) is quite subtle and may not warrant drawing any strong conclusions concerning either the EPP or the Inverse Case Filter.

2.3 Optionality of Overt Object Shift

Whereas in earlier work (see, e.g., Lasnik 1995b,c) Lasnik argued that overt object shift is obligatory in ECM constructions, in Lasnik 1999 he argues that overt object shift in ECM constructions is optional. One of the main arguments for his claim involves the paradigm in (22) and (23). (Not all speakers allow the [*make out* NP] order.)

(22) I proved every Mersenne number not to be prime.

(23) a. The mathematician made every even number out not to be the sum of two primes.
　　　b. The mathematician made out every even number not to be the sum of two primes.

According to Lasnik, (22) is ambiguous with respect to scope possibilities: either the universal quantifier or negation can take wide scope. Lasnik analyzes these facts as follows: When the universal quantifier undergoes overt object shift, it must have wide scope with respect to negation. On the other hand, when the universal quantifier stays within the embedded clause, either the universal quantifier or negation can have wide scope. (The underlying assumption here is that scope relations are established overtly; that is, LF movement, which Lasnik treats as feature movement, cannot affect scope relations.) Lasnik claims that the possibilities for overt object shift are disambiguated in (23). According to Lasnik, in (23a), where the embedded-clause subject precedes the particle *out*, the embedded-clause subject has undergone overt object shift. On the other hand, in (23b), where the embedded-clause subject follows *out*, it remains in the embedded clause. Significantly, according to Lasnik, in (23a), the universal quantifier must have scope over negation, whereas (23b) is ambiguous. The optional overt object shift analysis is inconsistent with the attempt to deduce the final EPP from the Inverse Case Filter. Recall that under Lasnik's analysis, the universal quantifier remains within the embedded clause [Spec,IP] on the wide scope of negation reading. Under the Predicate Internal Subject

Hypothesis, the universal quantifier actually moves to that position. The movement cannot be driven by Case because the position in question is not a Case position. In fact, Lasnik explicitly claims that the movement is driven by the EPP. Lasnik gives a whole battery of arguments for optional object shift. I will address these arguments in section 6, where I provide an alternative analysis of Lasnik's data that is consistent with the overt object shift analysis. Pending this discussion, I point out here one argument for obligatory overt object shift in ECM constructions. Consider the following construction, from Bošković 1997a, which is unacceptable even if the adjunct modifies the matrix clause.

(24)   *When did John prove whom to be guilty?

Under the obligatory overt object shift analysis, the ungrammaticality of (24) can be easily accounted for. Assuming that the object is higher than the adjunct after it undergoes overt object shift, the Superiority Condition is violated if the adjunct moves to [Spec,CP] instead of the object. On the other hand, under the optional overt object shift analysis, the adjunct is higher than the object prior to *wh*-movement on the derivation in which it modifies the matrix clause and the object remains within the embedded clause. As a result, nothing should go wrong if the adjunct moves to [Spec,CP] instead of the object. Based on this, I conclude in Bošković 1997a that object shift must take place overtly in ECM constructions. (See this work for additional arguments to this effect. At this point I am focusing on ECM constructions. I discuss simple transitive accusative constructions in section 7.)

   The upshot of the discussion so far (and the discussion of Lasnik's paradigm in section 6) is that arguments for the final EPP are far from overwhelming. The attempt to deduce "final EPP" effects from the Inverse Case Filter seems promising. In the next section I turn to intermediate EPP effects, which provide much stronger evidence for the EPP.

3. "Intermediate EPP"

3.1 Quantifier Float

The first argument for the intermediate EPP is provided by quantifier-float constructions like (25).

(25)   The students$_i$ seem [all t_i] to know French.

Under Sportiche's (1988) analysis of quantifier float, in which the element a floating quantifier modifies is generated as a constituent with the quantifier, the quantifier being subsequently stranded under movement of the element in question, (25) provides evidence that *the students* passes through the infinitival [Spec,IP] when moving from its θ-position, [Spec,VP], to the

matrix clause [Spec,IP].[12] Given that the embedded [Spec,IP] is not a Case position, movement to this position cannot be motivated by the Inverse Case Filter.

3.2 Condition A

More evidence for the intermediate EPP is provided by (26), taken from Castillo, Drury, and Grohmann (1999), who attribute the data to Danny Fox.

(26) a.   Mary seems to John [$_{IP}$ to appear to herself to be in the room].
     b.   *Mary seems to John [$_{IP}$ to appear to himself to be in the room].

Whereas in (26a) the anaphor in the embedded clause can take a matrix-clause NP as its antecedent, in (26b) this is not possible. Why is the anaphor in (26b) unable to take the experiencer as its antecedent? Notice that there is evidence that the experiencer NP can c-command outside of the experiencer PP, so we cannot attribute the ungrammaticality of (26b) to the failure of the potential antecedent to c-command the anaphor. Example (27a) shows that the experiencer NP can induce a Condition C violation, and (27b,c) show that it can license a negative polarity item and an anaphor in a position outside of the experiencer.

(27) a.   *It seems to him$_i$ that John$_i$ is in the room.
     b.   Pictures of any linguist seem to no psychologist to be pretty.
     c.   Pictures of himself seem to John to be cheap.

The ungrammaticality of (26b) immediately follows if the matrix subject passes—in fact, must pass—through the embedded clause [Spec,IP] on its way to the matrix [Spec,IP]. Example (26b) then exhibits a Specified Subject Condition effect. The experiencer is attempting to bind the anaphor across a closer binder, namely the trace in [Spec,IP] (see (28b)). The problem does not arise in (26a), where the anaphor is bound by the closest subject (see (28a)).[13]

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[12] See McCloskey 2000 for very strong evidence for Sportiche's approach. It is often noted that the ungrammaticality of passive and ergative constructions in (i) provides evidence against Sportiche's analysis, because the surface subject should be generated next to the floating quantifier.

(i) a.   *The students arrived all.
    b.   *The students were arrested all.

However, in Bošković 2001a, 2002b, I provide an account of these constructions that is fully compatible with Sportiche's analysis of quantifier float. More precisely, I show that quantifiers quite generally cannot be floated in θ-positions (see also the discussion of (78b) to come) and demonstrate that the ban on floating quantifiers in θ-positions follows from independently motivated mechanisms; in other words, it is a theorem.

[13] It is worth noting here that Castillo, Drury, and Grohmann (1999) argue that the experiencer cannot bind outside of its PP, based on the lack of a Condition B effect in (i).

(i)   Mary$_j$ seems to John$_i$ [$_{IP}$ t_j to appear to him$_i$ to be in the room].

(28)   a.   Mary$_i$ seems to John [$_{IP}$ t_i to appear to herself$_i$ to be in the room].
       b.   *Mary$_j$ seems to John$_i$ [$_{IP}$ t_j to appear to himself$_i$ to be in the room].

3.3 Reconstruction Effects

Consider now the following data from Lebeaux (1991:234), which were also discussed by Nunes (1995:200–202).

(29)   *[His$_i$ mother's$_j$ bread] seems to her$_j$ __ to be known by every man$_i$ to be __ the best there is.

(30)   [His$_i$ mother's$_j$ bread] seems to every man$_i$ __ to be known by her$_j$ to be __ the best there is.

The data in question can be easily accounted for if the matrix-clause subject passes through the embedded [Spec,IP]s, which can then serve as reconstruction sites.[14] In (29), the matrix-clause subject has to be reconstructed into the most embedded clause to license the bound-variable reading. However, the construction is then ruled out as a Condition C violation. (Notice that the construction is acceptable if *her* and *his mother* are not coindexed, which indicates that the quantifier can bind a variable outside of the *by*-phrase.) On the other hand, in (30) we can reconstruct the matrix subject to the higher infinitival [Spec,IP], a position where the bound-variable reading can be licensed without inducing a Condition C violation.

Similar arguments can be constructed with respect to other phenomena where reconstruction is relevant. I believe, however, that there is already enough evidence to conclude that the ''intermediate EPP'' holds. Intermediate subject positions can be, and in fact must be, there. The Inverse Case Filter cannot help in this case, as it did in the case of the "final EPP," given that we are not dealing with Case-licensing positions. So, do we have here evidence for the EPP? That is, do we need to conclude that the EPP is needed based on the ''intermediate EPP'' effects discussed in this section? Not necessarily. The next section shows that the data in question can be captured without positing the EPP.

Notice, however, that the experiencer is quite plausibly too far away from the pronoun to induce a Condition B violation in (i). In fact, there is a subject intervening between the experiencer and the pronoun—namely, the trace in the embedded [Spec,IP]—which plausibly saves (i) from violating Condition B.

[14] I use the term *reconstruction* throughout this section informally to refer to interpretation of intermediate positions in nontrivial chains. The process in question can either involve activation of lower copies of chains in LF or a derivational, online application of relevant conditions at the point when the intermediate positions are actually heads of chains.

4. Accounting for "Intermediate EPP" Effects: Successive Cyclicity

It is standardly assumed that the *wh*-phrase in (31) passes (more precisely, must pass) through the intermediate [Spec,CP] as a result of successive cyclicity.

(31) What$_i$ do you think [t_i that Mary bought t_i]?

Note that there is no requirement that the specifier of the CP headed by *that* be filled, as shown by the grammaticality of (32), where the specifier of the embedded CP remains empty.

(32) You think [that Mary bought a car].

Apparently, *what* must pass through the embedded [Spec,CP] in (31) for a reason independent of any property of *that*, which does not require a specifier. In other words, creation of the embedded [Spec,CP] in (31) is a reflex of successive cyclic movement. It is required by a property of this movement, not by a property of *that*. I would like to suggest that the same holds for the movement of *the students* to the embedded [Spec,IP] in (33).

(33) The students$_i$ seem [t_i to have t_i liked French].

Departing from standard assumptions, I would like to suggest that just like *what* in (31), whose final landing site is [Spec,CP], passes through the embedded [Spec,CP] as a result of successive cyclic movement (not a property of C), *the students* in (33), whose final landing site is [Spec,IP], passes through the embedded [Spec,IP] as a result of successive cyclic movement, not a property of Infl, which, like *that*, does not require a specifier. In other words, I suggest that (31) and (33) should be treated in the same way in the relevant respect. In particular, the successive cyclic movement treatment of (31) should be extended to (33).

Let us see what this suggestion would imply when plugged into some recent accounts of the constructions in question. Chomsky (2000) follows standard assumptions in making a distinction between (31) and (33) in the relevant respect (see, however, Chomsky 1999, which also explores an alternative analysis). Following standard assumptions, Chomsky (2000) assumes that Infl always requires a filled specifier. In other words, it is subject to the EPP. As for *that*, Chomsky assumes that *that* may, but does not have to, have the EPP property.[15] Example (32) instantiates the no EPP property option. As for (31), although in principle *that* does not have to have the EPP property, according to Chomsky the no-EPP option for *that* is ruled

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[15] I refer to heads that always require a specifier, which is not the case with *that*, as true EPP heads. Note that this article is concerned with eliminating the true EPP, which holds independently of successive cyclic movement.

out in (31) by the Phase-Impenetrability Condition, which says that only the head and specifier of a phase are accessible for movement to a position outside of the phase.[16] Because for Chomsky CP is a phase, it is necessary to move *what* in (31) to the embedded [Spec,CP] so that *what* can later be moved outside of the CP. This is accomplished by giving *that* the EPP option. If *that* is not given the EPP option, *what* would not move to the embedded [Spec,CP], as a result of which it could not move outside of the embedded CP due to the Phase-Impenetrability Condition. Technically, it would be easy to extend Chomsky's account of (31) to (33). We would just need to assume that Infl may, but need not, have the EPP property and that IP is a phase.[17] Chomsky argues that IP is not a phase. Interestingly, the criterion for phasehood he adopts—propositionality—would classify the embedded IP in (33), and in fact, all raising IPs, as a phase. The embedded clause in (33) seems to be a complete proposition and should therefore count as a phase.[18] We could also relativize the notion of phasehood for locality of movement following the line of research that originated with Rizzi (1990), who shows that in a number of respects, relativized barrierhood is superior to rigid barrierhood. (Chomsky's conception of phase-based locality corresponds to rigid barrierhood.) In particular, one could easily develop a relativized phase system, where CP would be a phase for elements undergoing movement to CP, and IP for elements undergoing movement to IP. The Phase-Impenetrability Condition would then again force movement through the infinitival [Spec,IP] in (33).

The upshot of this discussion is that my proposal concerning the "intermediate EPP" can be incorporated into Chomsky's (2000) system. In fact, the incorporation would not face any of the problems for the true

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[16] In what follows I ignore vP as a phase.

[17] It is worth noting in this respect that Ormazabal (1995) argues that raising and ECM infinitives are actually CPs.

One possibility that I will not explore here would be to assume that each phrase is a phase, which seems to be the null hypothesis, essentially importing Manzini's (1994) proposal that movement must proceed through the domain of each head into a phase-based system. Under this analysis, each head would have to be assigned an EPP property when movement takes place out of its maximal projection from its complement.

[18] Compare also the infinitive in *There seemed to have arrived someone* with the embedded finite clause in *It seemed there had arrived someone* or *It seemed someone had arrived*. The embedded finite clause seems to be no more of a proposition than the infinitive.

Chomsky (2000) gives two empirical arguments that IPs are not phases (see Franks & Bošković 2001 for an additional argument that is not discussed here). First, he claims that, in contrast to CPs, IPs are not phonologically isolable, which is supposed to follow from them not being phases. Second, the assumption that IPs are not phases is supposed to provide us with an account of the fact that partial raising of the associate in expletive constructions is generally not possible, as shown by the ungrammaticality of *There seems someone to have arrived*. I discuss the latter property in section 5.1, where I argue, following Castillo, Drury, and Grohmann (1999) and Epstein and Seely (1999) that Chomsky's account of that property cannot be maintained. As for the former, the claim that IPs are not isolable cannot be maintained. Thus, IPs can undergo right-node raising, as shown by (i).

     (i)   Mary wonders when, and John wonders why, Peter left.

For problems with Chomsky's approach to phases, see also Epstein and Seely 1999 (pp. 44–46) and Bošković, in press.

intermediate EPP discussed in the next section. However, I hesitate to endorse this analysis here because Chomsky's (2000) approach to successive cyclic movement seems to me to be on the wrong track. The problem with the approach is that it relates the successive cyclic movement of *what* in (31) to a property of *that*. As a result, it is difficult to rule out constructions like (34) in a principled way, given the derivation on which we have chosen the EPP option for *that*, which results in the movement of *what* to the embedded [Spec,CP], just as it does in (31) (see the discussion of (36) and section 5.2. for additional problems).[19]

(34)   *Who thinks what that Mary bought?

The most principled way of accounting for (34) seems to be to divorce movement through intermediate [Spec,CP]s from C—that is, not to consider it to be a result of a property of C but of the movement itself. This was actually the standard assumption until very recently. For example, this was the case with Takahashi's (1994) system, the most comprehensive account of locality of movement in early minimalism, based on Chomsky and Lasnik's (1993) Minimize Chain Links Principle (MCLP).[20] For Takahashi, successive cyclic movement is not a result of feature checking. Rather, it is a result of the requirement that all chain links be as short as possible.[21] The requirement forces element X undergoing movement of type Y to stop at every position of type Y on the way to its final landing site, independently of feature checking. The MCLP thus forces *what* in (31) to pass through the embedded [Spec,CP] on its way to the matrix [Spec,CP]. It also forces *the students* in (33) to pass through the embedded [Spec,IP] on its way to the matrix [Spec,IP]. The intermediate [Spec,CP] and [Spec,IP] in the constructions in question are filled as a result of the property of the movements involved. We do not need to invoke a property of the embedded C and Infl to drive the movement to these positions. Notice also that, because no feature checking is posited between a *wh*-phrase and declarative C, both (34) and (32) are easily accounted for. In particular, (34) violates Last Resort.

The old problem of the impossibility of intermediate preposition (P) stranding provides further evidence for the superiority of the MCLP approach. Consider (35) and (36).

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[19] Notice that it is not possible to appeal to the Doubly Filled Comp Filter, because nothing changes if *that* is replaced by a null C, as in **Who thinks what Mary bought?* See, however, the following discussion for a way of handling (34) hinted at in Chomsky 2000. For much relevant discussion, see also Saito 2000.

[20] Takahashi's approach is revived by Boeckx (2001b), who also provides convincing new arguments for this approach to locality of movement.

[21] Takahashi assumes the Form Chain operation. Under this approach, Last Resort is relevant to the formation of a chain, not links of a chain. In other words, formation of a chain must have a feature-checking motivation, not formation of chain links. Notice also that because Form Chain is a single operation, formation of a chain cannot be interleaved with another operation (in this respect, see also Collins 1994). Thus, in the structure X_i Y t_i t_i, with X_i t_i t_i a three-member chain and Y the target of movement, no movement of X takes place until Y enters the structure.

(35) a.   In which garage did you find that car?
      b.   Which garage did you find that car in?

(36) *Which garage do you think in (that) John found that car?

Although pied-piping of the P is in principle optional in the constructions under consideration, it cannot take place in an intermediate position, as shown in (36). Under Chomsky's (2000) approach to successive cyclicity, which ties successive cyclic movement to a property of intermediate heads and considers each step of successive cyclic movement a separate operation, it is very difficult to account for the contrast between (35b) and (36). It seems that (36) is incorrectly ruled in.[22] On the other hand, accounting for these facts under the MCLP approach is straightforward, given that, as discussed earlier and argued for extensively in section 5.2, the embedded declarative C does not establish a feature-checking relation (i.e., it does not undergo Spec-head agreement) with a *wh*-phrase. In (35), *wh*-movement takes place after the matrix C, which drives the movement, enters the structure (see fn. 21). The chain starting in the original position of the *wh*-elements (PP in (35a) and NP in (35b)) and finishing in the matrix [Spec,CP] is then formed, formation of the chain being driven by a formal inadequacy of the matrix C—that is, checking its strong [+wh] feature—thus conforming with Last Resort. The MCLP forces the movement to proceed via the intermediate [Spec,CP], but no feature checking takes place in this position. In contrast to (35), (36) does not involve a single chain formation. Rather, there are two separate chains: one involving movement of a PP to the embedded [Spec,CP], and the other involving movement of the *wh*-phrase, an NP, from inside the PP to the matrix [Spec,CP].[23] Given my contention that no feature checking (i.e., Spec-head agreement) with the embedded declarative C takes place in the constructions under consideration (C does not require movement of a *wh*-element to [Spec,CP]), formation of the first chain violates Last Resort. The contrast between (35b) and (36) is thus accounted for. The impossibility of intermediate P-stranding provides further evidence that successive cyclic movement is not driven by a requirement on intermediate heads.

It is also worth noting in this respect the following quantifier-float construction from Sportiche (1988).[24]

(37) The carpets (all) will (all) have (all) been (all) being (all) dusted for two hours.

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[22] Notice that movement out of [Spec,CP] is in principle possible, yielding at worst a very weak violation. In this respect, notice the contrast between ?*Who do you wonder which picture of Jane bought* and (36), both of which involve extraction of a complement of P from [Spec,CP].

[23] Form Chain being a single operation, we cannot drop the P, thus changing the categorial status of the element undergoing movement, without breaking chain formation. (Note that, as discussed in Bošković 2001a, 2002b, in quantifier-float constructions stranding of the quantifier does not lead to changing the categorial status of the element undergoing movement.)

[24] The last *all* actually seems to be an instance of *all* meaning 'entirely' (Bobaljik's [1995] completive *all*) rather than a floating-quantifier *all*.

Under Sportiche's account of quantifier float we are led to the conclusion that *the carpets* in (37) passes through all the positions in which *all* can be placed. It is unlikely that all the positions in question involve the feature-checking/ EPP property. On the other hand, Takahashi's (1994) analysis can be easily extended to (37). What is important here is that, under a Takahashi-style analysis, A-movement can be forced to proceed via intermediate [Spec,IP]s independently of the EPP. As a result, we can account for "intermediate EPP" effects without appealing to the EPP itself.

There is a suggestion in Chomsky 2000 (p. 109), more fully worked out in Chomsky 1999 (p. 29), which has the effect of making the movement to the specifier of a phase head that does not obligatorily have the EPP property essentially independent in terms of the driving force from the phase head itself, even in a phase-based locality system. The suggestion is to make the assignment of an EPP property to nontrue EPP heads conditioned on it being required to permit successive cyclic movement (see Chomsky 1999:29 for another possibility). The embedded clause heads in (31) and (33) can then be assigned an EPP feature (given the above suggestion to extend phasehood to the infinitive in (33)), since the assignment is necessary to permit successive cyclic movement. On the other hand, the embedded clause heads in (32) and (34) cannot be assigned an EPP feature, because the assignment is not necessary to permit successive cyclic movement. Under this analysis, movement through the specifier of a nontrue EPP phase head is really a reflex of successive cyclic movement. The phase head is essentially a bystander. By itself, it cannot induce movement to its specifier, hence the ungrammaticality of (34). In other words, we are not dealing here with true intermediate EPP, which this work is attempting to eliminate. (Note, however, that the data in (35) and (36), particularly the ungrammaticality of (36), appear to remain unaccounted for even under this version of the phase analysis. The same holds for the phenomena discussed in section 5.2.)

There are other ways of instantiating the idea that movement to the embedded-clause specifier in both (31) and (33) takes place because of locality, not because the embedded clause head always requires a specifier. Thus, we can implement the idea by appealing to the old notion of a phrase boundary breaking a chain (see Aoun 1986:72), now relativized in such a way that CP breaks an A′-movement chain, and IP an A-movement chain, which is relatable to the final landing sites of these movements. Consider the condition in (38).[25]

(38) The Successive Chain Links Condition
      *A_i [$_\alpha$ A_j], where α dominates A_j and excludes A_i, A_i and A_j successive links of a chain β and α = CP if A_i is in an A′-position, α = IP if A_i is in an A-position.

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[25] See also the next footnote for a version of the analysis based on (38) that does not require appealing to the notion of chain.

Given (38), A′-movement is not allowed to cross a CP boundary, and A-movement is not allowed to cross an IP boundary. A way around the blocking effect of the CP and IP is to adjoin to the CP and IP. Under Kayne's (1994) proposal that traditional specifiers are actually adjuncts, this is tantamount to movement through [Spec,CP] and [Spec,IP]. I conclude therefore that (38) forces movement through [Spec,CP] and [Spec,IP] for A′- and A-movement, respectively. What is important for our current purposes is that (38) gives us "intermediate EPP" effects for A-movement without employing true EPP.[26]

Yet another possibility is to appeal to Manzini's (1994) approach to locality, which requires movement to pass through the domain of each head. A relativized minimality version of Manzini's proposal would require movement to pass through the domain of each head of an appropriate type, A′-head for A′-movement and A-head for A-movement. A consequence of this is that A′-movement would have to pass through the domain of C and A-movement through the domain of Infl. Both movement through [Spec,CP], in the case of A′-movement, and movement through [Spec,IP], in the case of A-movement, are then forced by locality.

For ease of exposition, I will continue the discussion assuming Takahashi's (1994) MCLP analysis of locality. The details of the analysis, however, are not essential here. Working them out would entail giving a complete account of successive cyclicity and locality of movement, notorious issues that go well beyond the scope of this article. The main goal of the preceding discussion of successive cyclicity was to point out an important ingredient that a successful theory of successive cyclic movement should have, which the current phase-based theory of successive cyclicity is missing. This lack is due to a change in the perspective concerning the driving force of successive cyclic movement that was made in a departure from a long-standing tradition. (Note, for example, that in the *Barriers* system, successive cyclic movement was considered a result of a property of movement [or the resulting chain], not intermediate landing sites.)

Returning to the main topic, the most important point made in section 4 is the proposal that movement through intermediate [Spec,IP]s should be treated on a par with movement through intermediate [Spec,CP]s. The best way of dealing with the latter is to consider it a reflex of successive cyclic movement—more precisely, a result of the property of the movement itself rather than a property of the C head, which clearly independently does not require a specifier. The suggestion is to treat passing through intermediate [Spec,IP]s in the same way, which means that an intermediate Infl does not require a filled specifier. This way, we can capture "intermediate EPP"

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[26] A version of this analysis that would not require an appeal to the notion of chain would make the step of crossing a CP boundary, in the case of A′-movement, and an IP boundary, in the case of A-movement, in itself illegitimate, requiring adjunction to CP and IP (i.e., movement to [Spec,CP] and [Spec,IP] under Kayne's proposal). In its spirit, this analysis would be close to the *Barriers* system (Chomsky 1986a), with "relativized barriers" CP and IP being voided through adjunction.

effects without the EPP. In the next section I show that the successive cyclic movement approach to "intermediate EPP" effects is empirically superior to the EPP approach (i.e., the approach on which intermediate [Spec,IP]s are filled as a result of the requirement that every sentence have a subject). I will show that in a number of configurations intermediate [Spec,IP]s remain empty (i.e., are not created), which raises an insurmountable problem for the EPP. I will also show that exactly in these configurations [Spec,IP] does not have to be filled as a result of successive cyclic movement.[27]

5. Arguments against the Intermediate EPP

5.1 Merge over Move

Consider the data in (39).

(39) a.   There seems to be a man in the garden.
      b.   *There seems a man$_i$ to be t_i in the garden.

Chomsky (1995) gives an account of (39) that assumes the EPP. The account is based on the Merge-over-Move preference. According to Chomsky, at the point when the embedded clause is built we need to insert something into the infinitival [Spec,IP] to satisfy the EPP, an overt syntax requirement. We have two possibilities for doing this in (39). We can either insert *there*, which is present in the numeration, into [Spec,IP], or we can move the indefinite to this position. Chomsky argues that lexical insertion is a simpler operation than movement. Therefore, the possibility of expletive insertion into the embedded [Spec,IP], which for Chomsky takes place in (39a), blocks the indefinite movement to the embedded [Spec,IP], which takes place in (39b). Castillo, Drury, and Grohmann (1999) and Epstein and Seely (1999), however, observe several problems with the Merge-over-Move account. Consider first the following construction from Castillo, Drury, and Grohmann, attributed to Juan Romero and Alec Marantz (see also Epstein & Seely 1999, Frampton & Gutmann 1999, and Nunes & Uriagereka 2000), where the indefinite has apparently moved to [Spec,IP] although an expletive was available for lexical insertion.

(40) There was a rumor that a man$_i$ was t_i in the room.

To deal with this type of construction Chomsky (2000) introduces the concept of subnumeration, defined on phases. More precisely, Chomsky proposes that each phase has its own subnumeration. Given that the expletive is not present

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[27] It is worth noting here that the arguments against the EPP given in section 5 can also be accommodated in EPP-less analyses that do not assume "intermediate EPP" effects (i.e., passing through intermediate [Spec,IP]s), as in Boeckx 2000a, Castillo, Drury, and Grohmann 1999, Epstein and Seely 1999, Grohmann, Drury, and Castillo 2000, and Martin 1999.

in the subnumeration corresponding to the embedded clause, the option of expletive insertion is not available.

A serious problem for this analysis is raised by (41).

(41)   a.   There has been a book$_i$ put t_i on the table.
         b.   *There has been put a book on the table.

Lasnik (1995a) argues that the indefinite in (41a) moves overtly to satisfy the EPP.[28] Under Chomsky's definition of phase, the constructions in (41) contain only one phase (passive VP is not a phase for Chomsky). As a result, the expletive should be available for lexical insertion at the point when the indefinite undergoes movement in (41a). Given the Merge-over-Move preference, the possibility of expletive insertion should block the indefinite movement. As a result, (41b) should block (41a).

Consider now (42).

(42)   Mary believes John$_i$ to t_i know French.

At the point when the embedded clause is built in (42), there are two possibilities for satisfying the EPP. We can either move *John* or Merge *Mary* into that position. Given the Merge-over-Move preference, the latter should block the former. As a result, we cannot derive (42). Chomsky (1994) observes that the derivation on which *Mary* is introduced into the embedded [Spec,IP] eventually violates the θ-Criterion.[29] However, we need look-ahead to take advantage of this to rule out the derivation in question. To avoid look-ahead, Chomsky (2000) proposes the condition that arguments can be merged only in θ-positions. The condition blocks the unwanted derivation for (42) without look-ahead. However, Epstein and Seely (1999:48–50) point out several problems with this condition. For one thing, the condition is massively redundant. For example, the condition unnecessarily rules out (43), which is plausibly already ruled out because it is uninterpretable (i.e., because the presence of *John* induces a Full Interpretation violation).

(43)   *John seems that Peter likes Mary.

Based on these problems, Epstein and Seely (1999) and Castillo, Drury, and Grohmann (1999) argue that the Merge-over-Move preference should be abandoned. If the preference is abandoned, a question arises how the data in (39), especially the ungrammaticality of (39b), can be accounted for. Notice, however, that (39b) raises a problem only if there is EPP. If there is no EPP (more precisely, if the only [Spec,IP] positions that need to be filled are those

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[28] Under the partitive Case hypothesis, to be discussed, the indefinite may be located in its Case-checking position.

[29] It would also yield a Case violation if we assume that the trace of *Mary* in the infinitival [Spec,IP] blocks Case licensing of *John* (see section 5.5.5).

that are required by the Inverse Case Filter or the MCLP; i.e., the requirement of successive cyclic movement), the ungrammaticality of (39b) can be easily accounted for. There is no reason to move the indefinite to the embedded [Spec,IP], hence the movement is blocked by the Last Resort Condition.

5.2 Ellipsis

Certain facts concerning ellipsis in infinitival constructions provide another argument against the EPP. Lobeck (1990) and Saito and Murasugi (1990) note that functional heads can license ellipsis of their complement only when they undergo Spec-head agreement (SHA); that is, feature checking. Thus, (44) shows that tensed Infl, *'s*, and [+wh] C, which according to Fukui and Speas (1986) undergo SHA, license ellipsis, whereas the nonagreeing functional categories *the* and *that* do not.

(44) a. John liked Mary and [$_{IP}$ Peter$_i$ [$_{I'}$ did t_i like Mary]] too.
   b. John's talk about the economy was interesting but [$_{DP}$ Bill [$_{D'}$'s talk about the economy]] was boring.
   c. *A single student came to the class because [$_{DP}$ [$_{D'}$ the student]] thought that it was important.
   d. John met someone but I don't know [$_{CP}$ who$_i$ [$_{C'}$ C John met t_i]].
   e. *John believes that Peter met someone but I don't think [$_{CP}$ [$_{C'}$ that Peter met someone]].

As discussed by Martin (1996, 2001; see also Bošković 1997a and Koizumi 1995), VP ellipsis is also possible in control infinitives, which is expected under the Case-theoretic approach to the distribution of PRO, in which PRO in (45) is checked for null Case by the infinitival Infl, *to*, hence must undergo SHA with *to*.

(45) John was not sure he could leave, but he tried [$_{IP}$ PRO$_i$ [$_{I'}$ to t_i leave]].

Significantly, Martin (1996, 2001; see also Bošković 1997a and Koizumi 1995) observes that VP ellipsis is not possible in ECM infinitives.

(46) *John believed Mary to know French but Peter believed [$_{AgroP}$ Jane$_i$ [$_{IP}$ t_i [$_{I'}$ to t_i know French]]].

Epstein and Seely (1999:81) interpret this as indicating that, in contrast with *to* in (45), *to* in (46) does not undergo SHA. This in turn provides evidence against the feature-checking approach to the EPP; more precisely, the intermediate EPP given overt object shift. Under the analysis proposed here, which assumes overt object shift, *Jane* passes through the infinitival [Spec,IP] in (46). However, the movement is forced by the MCLP, not a feature-checking requirement. As a result, no SHA with *to* takes place in (46)

in spite of *Jane* passing through the embedded [Spec,IP]. In this respect, note the possibility of quantifier float in (47), which under Sportiche's (1988) analysis indicates that the ECM subject indeed passes through the infinitival [Spec,IP].[30]

(47)   I believe the students all to know French.

The ungrammaticality of (48), taken from Bošković 1997a, is also relevant to the current discussion.

(48)   *John met someone but I don't know who$_i$ Peter said [$_{CP}$ t_i [$_{C'}$ C ~~John met~~ t_i]].

Apparently, IP ellipsis is not licensed in (48). This can be readily accounted for if passing through an intermediate [Spec,CP] does not imply feature checking (i.e., SHA with C), as I argue. In fact, the ungrammaticality of (48) should be taken as additional evidence against the feature-checking view of successive cyclic movement, on which C would undergo SHA in (48). Under this view, (48) is incorrectly expected to pattern with (44d) rather than (44e).

Notice that in Chomsky's (2000) system, the SHA requirement on ellipsis would be restated as an EPP requirement (see also the discussion of the EPP with respect to selection and agreement in fn. 6). The facts under consideration, both those concerning C and those concerning Infl, thus also provide evidence against Chomsky's (2000) system. In this system, (46) and (48) are incorrectly predicted to be acceptable because *to* and the declarative C take a specifier.

Note also that the feature-checking approach to successive cyclic movement forces on us a rather perverse assumption that in constructions like *What do you think that Mary bought* (i.e., (31)), the *wh*-phrase, a [+wh] element, undergoes SHA with the declarative complementizer *that*, which is specified as [–wh] (see Lasnik & Saito 1992).[31] The assumption is not

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[30] Following Lasnik and Saito (1992), Martin (1996, 2001) argues convincingly that some traditional raising predicates have control variants. As expected, given the discussion of (45), the control variants, whose infinitival complement [Spec,IP] is filled by PRO, allow VP ellipsis. The reader is referred to Martin 1996, 2001 for convincing arguments that (i), where VP ellipsis is allowed, instantiates the control variant. Where the control option is ruled out, as in (ii) (expletive *there* cannot control PRO), VP ellipsis is disallowed, as expected.

   (i)   Kim may not leave, but Sarah is likely to ~~leave~~.
   (ii)   *It was announced that there may be a riot, so everyone believes there is likely
           to ~~be a riot~~.

[31] A similar problem also seems to arise in Chomsky's (2000) system, given that Agree is a component of Move (see fn. 6). Notice that in the preminimalist trace theory of movement, a solution to the problem in question was available. Thus, Lasnik and Saito (1992) proposed that a *wh*-phrase in [Spec,CP] and its trace in an intermediate [Spec,CP] differ with respect to the specification for the [wh] feature, the *wh*-phrase, but not its trace, being specified as [+wh]. They furthermore assumed that the trace in an intermediate [Spec,CP] (not the head of the *wh*-chain) undergoes SHA with the intermediate C. Under these assumptions, (31) would not have to

necessary under Takahashi's (1994) approach to successive cyclic movement, where the movement to the intermediate [Spec,CP] is forced by the MCLP, not a feature-checking requirement; therefore no SHA between the *wh*-phrase and *that* has to take place in the construction in question. This should be taken as another argument for the superiority of the MCLP approach over the feature-checking approach to successive cyclic movement.

5.3 *Effect on Output*

Returning to the central topic of the article, the EPP, another argument against the EPP is provided by (49).

(49) a. There seems to be someone in the garden.
      b. Someone seems to be in the garden.

Chomsky (1995), who treats the EPP in terms of strong feature checking, argues that an element can be present in a numeration only if it has an effect on the output. In the case of strength, the effect is reflected in PF—namely, in causing displacement (with a change in word order, not PF vacuous displacement). In other words, for Chomsky, strength can be present in the numeration only if it induces movement that has a PF effect.[32] As a result, as observed by Nunes (1995:165), the infinitival Infl in (49) cannot have a strong feature because the feature would not have an effect on PF. In other words, the EPP cannot hold for the embedded clause in (49).

5.4 *Double* There

The notorious double-*there* construction raises another problem for the EPP, especially under the position, held by Chomsky (1995), that *there* does not have Case. It is difficult to rule out double-*there* constructions like (50) in a principled way given this assumption and the EPP.[33]

(50) *There seems there to be someone in the garden.

involve SHA between a [+wh] and a [–wh] element. However, the analysis cannot be maintained under the copy theory of movement, where it is impossible to maintain the assumption that in a construction like (31), the *wh*-phrase in the matrix interrogative [Spec,CP], but not the element in the intermediate [Spec,CP] (actually a copy of the *wh*-phrase), is specified as [+wh]. (In addition, in the current system, under the feature-checking approach to successive cyclic movement the head of the *wh*-chain itself would undergo SHA with *that* since the SHA would take place before the root-clause structure is built.)

[32] See also Chomsky 2000 (p. 109) concerning the filled-Spec EPP requirement. The argument given in the text can thus be extended to this view of the EPP.

[33] Chomsky (1995) gives an account of the double-*there* construction that I have shown (Bošković 1997a:98–99) to cause very serious problems for his analysis of expletive constructions, hence cannot be maintained (see, however, Chomsky 2000 for an alternative analysis).

On the other hand, (50) can be easily ruled out if there is no EPP. If we assume with Chomsky (2000:132–133; see also Hornstein 2001:55–56) that even pure Merge is subject to Last Resort,[34] (50) is straightforwardly ruled out because there is no reason to merge *there* in the infinitival [Spec,IP].

To summarize the discussion so far, we have seen that there is empirical evidence for the ''intermediate EPP'' (i.e., that A-movement proceeds via intermediate [Spec,IP]s). However, I have argued that this happens because of the MCLP (i.e., as a reflex of successive cyclicity), not the EPP. We have already seen some evidence against the intermediate EPP. In the next section I examine several contexts in which I will argue intermediate [Spec,IP]s have to remain empty (more precisely, they cannot be created), which will provide us with conclusive evidence against the intermediate EPP. I will furthermore show that exactly in these contexts intermediate [Spec,IP]s are expected not to be created under the MCLP view of passing through intermediate [Spec,IP]s, which will provide evidence for the MCLP analysis of ''intermediate EPP'' effects. The contexts in question concern expletive constructions.[35]

5.5 Expletives Don't Move

In this section, I show that the MCLP approach and the EPP approach make different predictions concerning ''intermediate EPP'' effects in expletive constructions. Under the EPP approach, intermediate [Spec,IP]s must be created in such constructions, which is not the case under the MCLP approach. Whereas the EPP forces filling of intermediate [Spec,IP]s in both expletive and nonexpletive constructions, the MCLP does not do so in expletive constructions, in contrast to nonexpletive constructions. Under the MCLP approach, the structures in (51) are permitted for the constructions in question.

(51) a. Someone$_i$ is likely [$_{IP}$ t_i to be t_i in the garden].
      b. There is likely [$_{IP}$ to be someone in the garden].

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[34] On this view, satisfying a selectional requirement counts as a legitimate driving force with respect to Last Resort.

[35] The reader should bear in mind that with respect to Case licensing in expletive constructions, I will be adopting the line of research that originated with Belletti (1988) and was extensively argued for in a number of articles by Howard Lasnik (see, e.g., Lasnik 1995a,b) as well as Bošković 1997a, Epstein and Seely 1999, and Martin 1992, among others, on which expletive *there* has structural Case, its associate being licensed for partitive Case by the verb. I therefore depart from Chomsky (1995), for whom *there* in constructions like *there is a woman in the garden* is Caseless, the associate bearing nominative Case. Constructions like (i), however, provide strong evidence against Chomsky's position. (See Lasnik 1995a,b and Bošković 1997a for a number of additional arguments against Chomsky's position. One argument against it not noted in these works is given in section 2.1 with respect to (18). The reader is referred to Bošković 1997a for discussion of the finite counterpart of the infinitives in (18) [constructions like *there seems someone is ill*] under the Case-marked *there* approach.)

(i) There's always him/*he.

In the following subsections, I provide a number of arguments that expletives quite generally do not move—they are indeed inserted directly into their surface positions.[36] As a result, intermediate [Spec,IP]s in expletive constructions remain empty, in contrast to intermediate [Spec,IP]s in nonexpletive constructions. This state of affairs provides strong evidence against the EPP and for the MCLP account of ''intermediate EPP'' effects. The arguments for the immobility of expletives also provide evidence against analyses of expletive constructions such as those developed by Moro (1997), Hoekstra and Mulder (1990), and Sabel (2000), among others, which crucially rely on expletive movement. (Under these analyses, expletives are introduced into the structure lower than [Spec,IP] and then move to [Spec,IP].)

5.5.1 Wager-*class verbs*

My central argument that expletives do not move concerns locality restrictions on movement. The first locality argument concerns *wager*-class verbs.

Pesetsky (1992) establishes the descriptive generalization that agentive verbs cannot ECM lexical NPs, as illustrated in (52).

(52) a.   *John wagered the woman to know French.
      b.   *Mary alleged the students to have arrived late.

In Bošković 1997a, I deduce Pesetsky's generalization from the proposal that agentive verbs have an additional VP shell (see Hale & Keyser 1993) and the MCLP. In short, I argue that as a result of the presence of the additional VP shell, matrix [Spec,Agr$_O$P], the accusative-checking position, is too far from the embedded-clause subject.[37]

(53) *John$_i$ wagered [$_{AgroP}$ the woman$_j$ [$_{VP}$ t_i [$_{VP}$ t_i [$_{IP}$ t_j to t_j know French]]]].

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[36] Recall that, given that pure Merge is subject to Last Resort, *there* cannot be inserted in the infinitival [Spec,IP] position if the EPP does not hold. Note also that I confine the discussion below to A-movement. I do not discuss the possibility of A′-movement of expletives.

[37] See Bošković 1997a for details of the analysis and justification of the structure in (53). The upshot of the analysis is that equidistance allows skipping of one but not two specifiers, which is what would have to happen with agentive ECM constructions (see Bošković 1997a for discussion of simple transitives). I also argue there that the additional agentive shell, which is responsible for the ungrammaticality of (52), is not present in passive constructions, which provides a straightforward account of the contrast between active (52) and passive (i).

> (i)   a.   The woman was wagered to know French.
>   b.   The students were alleged to have arrived late.

The additional agentive shell is also not present with verbs like *believe*, which can ECM.

What is important for our current purposes is that (52) involves a locality violation.

Significantly, Postal (1974, 1993) shows that expletives can be ECMed by the verbs in question, as shown by (54). (Examples (54a–c) are from Postal 1993 and (54d) from Ura 1993. Recall that expletives are Case marked, hence must get to the matrix [Spec,Agr$_O$P] in (54).)

(54)   a.   He alleged there to be stolen documents in the drawer.
     b.   *He alleged stolen documents to be in the drawer.
     c.   He acknowledged it to be impossible to square circles.
     d.   John wagered there to have been a stranger in that haunted house.
     e.   *John wagered a stranger to have been in that haunted house.

Why is it that the locality violation that arises in the nonexpletive constructions does not arise in their expletive counterparts? My answer is straightforward, following the general logic of dealing with this type of a situation: there is no locality violation because there is no movement. More precisely, the locality violation does not arise in the expletive constructions because the expletives do not move. They are inserted right into their Case-checking position.

Consider how the data in (52) and (54) would be treated in the current system, which dispenses with the EPP. Given that there is no EPP, in contrast to the ECMed NPs in (52) and (54b,e), which have to be generated within the infinitival clause for θ-theoretic reasons, the expletive in (54a,c,d) can be merged directly into the matrix-clause [Spec,Agr$_O$P], where it satisfies the Inverse Case Filter. Because, in contrast to (52) and (54b,e), no A-movement out of the infinitival clause takes place in the expletive constructions in (54), the locality violation induced by A-movement out of the infinitive in (52) and (54b,e) does not arise in (54a,c,d). The expletive/nonexpletive contrast with respect to the possibility of ECM by agentive verbs is thus accounted for. The crucial ingredient of the analysis is that the infinitival [Spec,IP] is not created in (54a,c,d). We thus have an argument against the ''intermediate EPP'' in expletive constructions.

It is worth noting that in Bošković 1997a I observe that clitic pronouns can also be ECMed by *wager*-class verbs. Consider, for example, the contrast in (55).

(55)   a.   Mary never alleged him to be stupid.
     b.   *Mary never alleged him and her to be stupid.

The sentence in (55a) is acceptable with unstressed *him*. Based on such constructions, I concluded that clitic pronouns can also be ECMed by agentive verbs. Notice in this respect the ungrammaticality of (55b), where the pronominal element cannot be a clitic, given that, as is well known, clitics cannot be coordinated. The grammaticality of (55a) immediately follows,

under approaches to cliticization in which the clitic itself is base-generated in its surface position—it does not undergo movement. Under this analysis, the above account of (54a,c,d) readily extends to (55).[38]

5.5.2 *Extraposition*

Consider now the following contrast from Baltin (1985):

(56) a. *John is believed to be certain by everybody that Fred is crazy.
     b. It is believed to be obvious by everybody that Fred is crazy.

How can we rule out (56a) while still allowing (56b)? There is a rather straightforward way of accounting for the otherwise puzzling contrast in (56) whose crucial ingredient is the assumption, argued for in this work, that *John* in (56a), but not *it* in (56b), moves to the matrix [Spec,IP] from the infinitival clause. Because the extraposed clause follows the matrix *by*-phrase in (56), I assume that it is located in the matrix clause. I further assume that extraposed elements are quite generally base-generated in their surface positions, as in Culicover and Rochemont 1990 (see also Bennis 1986, Jackendoff 1990, and Zaring 1994). A strong argument for this assumption and against the movement analysis of extraposition, in which extraposition involves movement of the extraposed element, is provided by split-antecedent constructions noted by Perlmutter and Ross (1970; see also Gazdar 1981), where there is no plausible source for the base-generation of the extraposed element within an NP. (The following constructions are taken from Gazdar 1981).

(57) a. A man came in and a woman left who were quite similar.
     b. A man came in and a woman left who know each other well.

Returning to (56a), we can rule out the construction by assuming that *John* is not allowed to cross the extraposed clause when moving from the infinitive to the matrix [Spec,IP], the extraposed clause being closer to the matrix Infl than *John*. In other words, (56a) is a straightforward locality (more precisely, Attract Closest/relativized minimality) violation.[39] It follows then that *it* in (56b) does not move to its S-structure position from inside the infinitival

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[38] I am not saying here that all cliticization has to be treated this way.

[39] Under the base-generation approach to extraposition, it is natural to consider the extraposed clause in (56) an argument in its S-structure position (with an interpretative process that would treat it as if it were located within the AP; see Culicover & Rochemont 1990 and Guéron & May 1984), so that movement of *John* to the matrix [Spec,IP] in (56a) involves A-movement across an A-element. The reader is also referred to Bošković 1995 for arguments that finite CPs can occur in subject position (i.e., [Spec,IP]), contra Koster (1978), which means that the extraposed CP is clearly a candidate for attraction to the matrix [Spec,IP] in (56). (I argue in Bošković 1995 that finite CPs can even bear Case; see also McCloskey 1991 for evidence that they have φ-features.)

clause. Rather, it is base-generated in the matrix [Spec,IP], which means that the infinitival [Spec,IP] remains empty throughout the derivation. Under the current analysis, the contrast in (56) provides another argument against the EPP as well as additional illustration of the insensitivity of expletives to locality restrictions on movement, which immediately follows if expletives do not move.

5.5.3 *The experiencer blocking effect in French and Icelandic*

Probably the strongest piece of evidence that expletives indeed do not move is provided by the experiencer blocking effect in French.

   It is well known that English allows raising across an experiencer, as shown by (58).

(58)   John seems to Mary to be smart.

Some languages, however, do not allow NP raising across an experiencer. French is such a language, as observed by Chomsky (1995:305) and McGinnis (1998, 2001) and illustrated in (59).[40]

(59) a.   *Deux soldats semblent au   général manquer (être
            two   soldiers seem   to-the general to-miss   to-be
            manquants) à la caserne.
            missing   at the barracks
            'Two soldiers seem to the general to be missing from the
            barracks.'
      b.   *Deux soldats semblent au   général être   arrivés en ville.
            two   soldiers seem   to-the general to-be arrived in town
            'Two soldiers seem to the general to have arrived in town.'

According to Chomsky and McGinnis, (59) contains a violation of locality restrictions on movement; more precisely, relativized minimality. The constructions involve A-movement across an A-specifier.[41]

   Significantly, the expletive counterparts of (59) are acceptable, as shown in (60).

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[40] There is apparently some disagreement among French speakers with respect to constructions like (59). For relevant discussion, see, among others: Boeckx 2000c; Chomsky 1995; McGinnis 1998, 2001; and Rouveret and Vergnaud 1980. I am focusing here on the dialect in which (59a,b) are unacceptable.

[41] See references given previously and Boeckx 2000c, Stepanov 2002, and Torrego 1996 for discussion why English (58) is acceptable.

(60) a. Il   semble au   général y avoir deux soldats   manquants
          there seems to-the general to-have two   soldiers missing
          à la caserne.
          at the barracks
          'There seem to the general to be two soldiers missing from the
          barracks.'

   b. Il   semble au   général être   arrivé deux soldats en ville.
          there seems to-the general to-be arrived two soldiers in town
          'There seem to the general to have arrived two soldiers in town.'

There is an obvious, principled account of the contrast between (59) and (60)
that is available under the current analysis. In contrast to (59a,b), (60a,b) do
not involve A-movement across an A-specifier. In other words, the expletive
is generated in its surface position. As a result, it does not cross the
experiencer, hence its presence does not induce a locality violation.[42] The
contrast between (59) and (60), or more precisely, the absence of a locality
violation in (60), provides strong evidence that expletives do not move,
which in turn provides evidence against the EPP. The infinitival subject
position remains unfilled (i.e., it is not created) in the expletive constructions
in (60).[43]

   It is worth noting here that, as pointed out to me by Halldór Á. Sigurðsson
(personal communication), Icelandic, which like French has the experiencer
blocking effect (see Boeckx 2000c; McGinnis 1998, 2001; Holmberg &
Hróarsdóttir 2002; Stepanov 2002; and Thráinsson 1979, among others),
patterns with French in that the blocking effect disappears in expletive
constructions. This is illustrated in (61). (Note that (61a) is acceptable if the
experiencer is dropped.)[44]

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[42] Would the experiencer still block the agreement relation between the indefinite and Infl?
The question does not arise in French, where Infl does not agree with the indefinite. For relevant
discussion of English, see Boeckx 1999, which shows that in English the experiencer can
interfere with establishing an agreement relation between Infl and a lower associate.

[43] A question arises concerning what happens with the quasi-argument expletive with respect
to the experiencer blocking effect. Interestingly, (i) seems worse than (60).

      (i)   ?*Il   semble au   général avoir   plu.
                there seems to-the general to-have rained
                'It seems to the general to have rained.'

This is not surprising. Under the quasi-argument hypothesis, *il* is actually θ-marked by *plu* in (i).
As a result, it must be generated within the infinitive, which means that it undergoes movement to
the matrix [Spec,IP] across the experiencer, hence the contrast with (60). The contrast between (i)
and (60) thus confirms the quasi-argument hypothesis. It also confirms that only elements that are
θ-marked in a position lower than the experiencer are subject to the experiencer blocking effect,
as expected under the current analysis.

[44] I thank Halldór Á. Sigurðsson for help with the Icelandic data. Note that I use an ECM
structure to exclude the possibility of topicalization of the embedded-clause subject. (Sigurðsson
informs me that the expletive is always somewhat degraded as a subject of ECM infinitives. In
spite of that, (61b) is clearly better than (61a).)

   Notice also that not all languages that exhibit the experiencer blocking effect with respect to
constructions like (59) are necessarily expected to pattern with French with respect to (60). Ausín

(61) a.   *Við töldum myndir   hafa   einhverjum stúdentum
          we believed photos.NOM to-have some   students.DAT
          virst   hafa   verið teknar.
          seemed to-have been taken
          'We believed photos to have seemed to some students to have
          been taken.'

    b.   ??Við töldum það hafa   einhverjum stúdentum
          we believed there to-have some   students.DAT
          virst   hafa   verið teknar myndir.
          seemed to-have been taken photos.NOM
          'We believed there to have seemed to some students to have
          been photos taken.'

The absence of a relativized minimality violation in (61b) confirms that
expletives do not move—that is, that they are base-generated in their surface
positions. Given that the expletive is not base-generated in the most
embedded infinitival subject position in (61b), the position in question must
remain unfilled. Like French (60), Icelandic (61b) thus also provides
evidence against the EPP.

5.5.4 *Causatives in French*

Burzio (1986:312) observes that French *faire*-causatives do not allow
passivization out of them, as illustrated by (62), taken from Bouvier (2000).[45]

(62) *Une jupe a   été fait(e) faire   (par Marie).
      a   skirt has been made to-make by Mary
      'A skirt was caused to be made by Mary.'

Although it is not completely clear why (62) is unacceptable, it seems
plausible that its ungrammaticality should be attributed to a violation of
locality restrictions on movement. Another possibility is to assume that the
infinitive in (62) is a CP (see Rouveret & Vergnaud 1980 and Reed 1990;
Reed provides evidence for the presence of both IP and CP in the
complement of causative *faire*). Example (62) is then ruled out by whatever is

and Depiante (2000) investigate the experiencer blocking effect in Spanish, which also disallows
constructions like (59). They argue that in Spanish, *seem*+experiencer is a control construction; in
particular, it involves subject control. Obviously, a language that treats the *seem*+experiencer
construction as a subject-control construction is not expected to allow an expletive in this
construction for reasons independent of the current concerns.

[45] Such passivization is possible in the corresponding construction in Italian. As noted by
Burzio (1986:254), this type of passivized causatives in Italian can be an instance of Kayne's
(1975) *Faire-par* construction or *Faire*-infinitive construction. For ease of exposition, I will
mostly confine the discussion to the former type.

responsible for the ban on A-movement out of CPs. Either way, the culprit for the ungrammaticality of (62) is movement out of the infinitive.[46]

Significantly, Bouvier (2000) observes that the expletive counterpart of (62) is acceptable.

(63) Il   a   été fait faire   une jupe (?par Marie).
     there has been made to-make a   skirt   by Mary
     'A skirt was caused to be made by Mary.'

The obvious conclusion is that, in contrast to (62), (63) does not involve movement out of the infinitive. Since this entails that the infinitival [Spec,IP] in (63) is not created, the data under consideration provide further evidence for my contention that intermediate [Spec,IP]s do not exist in expletive constructions, which indicates that expletives do not move and that the EPP does not hold.[47]

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[46] As is well known (see Burzio 1986, Guasti 1991, and Kayne 1975, among others), on the *Faire-par* option, the infinitive embedded under *faire* resembles passives in a number of respects. In particular, it patterns with passives in that its external θ-role is not assigned, which means that it does not contain PRO. (See the references cited above. In fact, the infinitive does not even contain the implicit argument of the passive construction, as indicated by the fact that its logical subject cannot control PRO [even when a *by*-phrase is present], in contrast to the logical subject of passives.) Although the infinitive in (62) does not assign the subject θ-role, *une jupe* should still pass through the infinitival [Spec,IP], given the previous discussion; this is something like a double passive raising construction. Notice also that it is often assumed that the causative verb is involved in the assignment of accusative Case to the infinitival object (see, e.g., Burzio 1986, Guasti 1996, and Watanabe 1993), so that passivization of the causative verb affects Case licensing of the infinitival object. (Guasti 1996 argues that the infinitival verb incorporates into the causative.)

[47] Consider what happens in an active construction like (i) with respect to the EPP.

     (i)   Ceci fera   parler de   vous.
           this will-make to-talk about you
           'This will cause you to be talked about.'

Suppose that the EPP holds. It appears that, to satisfy it, it is necessary to insert an expletive into the infinitival [Spec,IP]. (Recall that, as discussed in the previous footnote, a subject θ-role is not assigned in the infinitival clause.) Given that expletives need Case, the expletive will have to be Case-licensed. The expletive can get accusative Case from the matrix verb, which is not passivized, in contrast to the matrix verb in the examples in the text. (It seems plausible that there is a phonologically null accusative counterpart of expletive *il*, given the grammaticality of *Je considère probable que Jean est parti* 'I consider it likely that John left', which, in contrast to its English counterpart, does not have an overt expletive.) However, given that A-movement from the infinitive under consideration is blocked, as discussed earlier, it looks like this derivation, which involves movement of the expletive from the infinitival [Spec,IP] to the matrix [Spec,AgrP], should fail. In fact, assuming that the Inverse Case Filter requires the causative verb to assign accusative Case, it appears that we are forced to insert the expletive straight into the matrix [Spec,Agr$_O$P] (unless the Case can be assigned to the infinitive), as in the *wager*-class constructions discussed in section 5.5.1. Example (i) then patterns with (63) in the relevant respect: the expletive is inserted straight into its Case-checking position in the matrix clause, infinitival [Spec,IP] remaining empty. However, in a framework that assumes the EPP, (i) could be rescued by assuming that the null expletive remains in the infinitival [Spec,IP] overtly, being licensed for accusative Case by the causative verb covertly (in other words, by assuming that French is not an overt object shift language), given the further assumption that in contrast to overt A-movement out of the infinitive, covert Case licensing of the element in the infinitival [Spec,IP] by a matrix-clause Case assigner (however this is accomplished) is possible.

5.5.5 *The trace intervention effect*

The data examined so far show that locality restrictions on movement routinely fail with expletives. (In fact, I have been unable to find a single instance of a locality violation with putative expletive movement.) This strongly suggests that expletive movement does not exist, which in turn provides evidence against the EPP.

   A different type of argument for the expletives-don't-move/no-EPP hypothesis is provided by constructions like (64) (for relevant discussion, see also Epstein & Seely 1999).

(64)   There seems to be someone in the garden.

Suppose that the EPP holds. The expletive would then be inserted into the infinitival [Spec,IP] and move to the matrix [Spec,IP]. The infinitival [Spec,IP] would then be filled by a trace of the expletive.

(65)   There seems *t* to be someone in the garden.

This raises a potential problem. More precisely, assuming a version of Chomsky's (1986b) expletive replacement hypothesis,[48] the trace in the infinitival [Spec,IP] might interfere with the LF movement of the associate *someone* into the matrix IP.[49] The intervention problem does not arise if there is no EPP and expletives do not move. Under these assumptions, the expletive is inserted directly into the matrix [Spec,IP]. In fact, if we assume, following Chomsky (2000), that even pure Merge (i.e., lexical insertion) is subject to Last Resort, insertion of the expletive into the infinitival [Spec,IP] is not even an option if the EPP does not hold, because nothing else could motivate the insertion. Because there is nothing in the infinitival subject position, the intervention problem noted above does not arise.[50]

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[48] The hypothesis is here understood broadly as a covert dependency between the associate and a position in the matrix IP. For ease of exposition, I state it in terms of movement.
[49] This should be an instance of A-movement across an A-element, hence it should be ruled out via relativized minimality under the A/A′ approach to relativized minimality. In a system where relativized minimality is stated in terms of actual features checked rather than the A/A′ distinction (see Chomsky 1995), whether the element in the infinitival [Spec,IP] will induce an intervention effect depends on the actual features involved in the checking relation in question. It appears that we would expect to find a blocking effect under the assumptions concerning what features are involved in the relevant checking relation made in Chomsky 2000 but not Chomsky 1995. Note, however, that, as discussed in Bošković 2000a, the feature-checking version of relativized minimality fails in a number of cases; for example, with respect to Rizzi's (1990) pseudo-opacity and inner island effects, as well as topicalization, relativization, and *tough*-movement out of *wh*-islands. The A/A′ approach to relativized minimality, in which we would expect to find a blocking effect in (65), is thus empirically superior to the feature-checking approach. Notice also that I assume that traces in principle can induce intervention effects, which is certainly the null hypothesis, especially under the copy theory of movement (see Nunes 1995 for empirical evidence that traces indeed induce intervention effects).
[50] Although I do not adopt here Chomsky's (2000) visibility approach, in which an element must have an uninterpretable feature to be able to undergo movement, it is worth noting that, as

5.5.6 *Icelandic multiple-subject constructions*

In this section, I consider the Icelandic multiple-subject construction, illustrated by (66).[51]

(66) Það   kyssti einhver Maríu.
     there kissed someone Mary
     'Someone kissed Mary.'

Chomsky (1995) proposes an analysis of (66) on which the two subjects occupy specifiers of the same head at S-structure. He then suggests that the construction involves a PF reordering mechanism, a reflex of the V2 requirement, which places the verb in the second position in PF. In Bošković 2001b, I restate Chomsky's analysis within a more general approach in which PF is allowed to affect word order but not through actual PF movement. The approach crucially relies on Franks's (1998; see also Bobaljik 1995, Pesetsky 1998, Hiramatsu 2000, Bošković 2002a, and Lambova 2002, among others) proposal that a lower copy of a nontrivial chain is pronounced in PF if and only if this is necessary to avoid a PF violation.[52] Consider how Chomsky's

pointed out by an anonymous reviewer, adopting the visibility approach also leads to the conclusion that the expletive in constructions like (64) does not move to the matrix [Spec,IP] from the embedded clause [Spec,IP].

   According to Chomsky (2000), expletive *there* works as a probe. Given this and assuming the EPP, consider (64) before the matrix clause is built.

       (i)   there to be someone in the garden.

The expletive should work as a probe in (i), probing the material in the infinitival clause (in fact, this has to happen before new elements of the lexical subarray are accessed; see Chomsky 2000:132). As a result, its uninterpretable person feature will be deleted. Given the visibility hypothesis, once *there* checks its uninterpretable person feature, it should be inaccessible for movement. *There* then cannot move to the matrix clause. *There* is thus essentially rendered immobile in Chomsky's (2000) system.

   [51] I thank Jóhanna Barðdal for help with the Icelandic data in this section.

   [52] One relevant example discussed in Bošković 2000b, 2002a involves multiple *wh*-fronting. A number of languages require all *wh*-phrases to be fronted in questions. Romanian is one such language.

       (i)   a.   Cine ce   precede?
                who what precedes
                'Who precedes what?'
          b. *Cine precede ce?

However, as observed in Bošković 2000b, 2002a, the second *wh*-phrase does not move if it is homophonous with the first fronted *wh*-phrase.

       (ii) a.   Ce   precede ce?
                what precedes what
          b. *Ce ce precede?

Following a proposal concerning Bulgarian made by Billings and Rudin (1996), I propose in Bošković 2000b, 2002a that Romanian has a low-level PF constraint against consecutive homophonous *wh*-phrases, which rules out (iib). (I show that the same holds for a number of Slavic languages.) What about (iia)? Given that Romanian has a syntactic requirement that forces all *wh*-phrases to move overtly, which I argue involves focalization, the second *wh*-phrase must move in the syntax. Example (iia) then has the S-structure in (iii), ignoring irrelevant copies.

analysis of (66) can be implemented in this approach given that V2 is indeed a PF requirement, as argued in Boeckx 1998, Bošković 2001b, and Rice and Svenonius 1998. (I argue that the same holds for the clitic-second requirement.) Let us assume following Chomsky (1995) that the two subjects in (66) are indeed located in the specifiers of the same head, to which the verb moves.[53] If we pronounce both subjects in front of the verb, we get a PF violation; namely, the second-position requirement violation. This is precisely the situation where we are allowed to pronounce a lower copy of a nontrivial chain.

(67) Það ~~einhver~~ kyssti einhver Maríu.

Interestingly, it is always the indefinite that is pronounced in a lower position. We never get the pattern in (68) (see (70)).

(68) indefinite V það ...

Why can *það* never be pronounced in a lower position? Consider the following construction.

(69) Það virðist maður hafa   kysst Maríu.
     there seems a-man to-have kissed Mary
     'A man seems to have kissed Mary.'

Suppose that the EPP holds. The following derivation is then available: *Það* is introduced into the embedded [Spec,IP] to satisfy the EPP. Because Icelandic allows multiple subjects, we can still move the indefinite to this position (see

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      (iii) Ce ce_i precede ce_i?

If, as we normally do, we pronounce the highest copy of the second *wh*-phrase in (iii), a PF violation obtains. (We end up with a sequence of homophonous *wh*-phrases.) This is precisely the situation where we are allowed to pronounce a lower copy under Franks's approach to the pronunciation of nontrivial chains.

      (iv) Ce ~~ce~~ precede ce_i?

This analysis enables us to derive (iia) and account for the contrast between (iia) and (ib) without violating the syntactic requirement that forces all *wh*-phrases to move overtly in Romanian, without look-ahead from the syntax to the phonology, and without any PF movement.

   There is also independent evidence that the second *ce* in (iia) indeed moves in the syntax. Thus, it can license a parasitic gap (see (v)), which, as is well known, can only be licensed by overt movement. In this respect, the "*ce*-in-situ" patterns with *what* in (via), rather than *what* in (vib), as expected under the proposed analysis.

      (v) Ce precede ce fără să   influențeze?
            what precedes what without SUBJ.PARTICLE influence.3P.SG
            'What precedes what without influencing?'
      (vi) a.   What did John read without filing?
           b. *Who read what without filing?
  [53] We may be dealing here with multiple Case assignment (instead of multiple EPP).

Chomsky 1995). Both subjects then move to the matrix [Spec,IP].[54] Assuming that elements in the specifiers of the same head are equidistant (see McGinnis 1998), we can move them in either order. Given that both *það* and the indefinite have copies lower than the verb, a question arises why we cannot delete the higher copy of *það* to satisfy the second-position requirement. This deletion would give the unacceptable construction in (70).

(70) a.   *~~Það~~ maður virðist það ~~maður~~ hafa kysst Maríu.
      b.   *Maður ~~það~~ virðist það ~~maður~~ hafa kysst Maríu.

On the other hand, if there is no EPP, the problem at hand is easily resolved. Given that, as discussed earlier, even pure Merge (i.e., lexical insertion) must have motivation, if there is no EPP *það* cannot be merged into the embedded [Spec,IP]. It has to be merged directly into the matrix [Spec,IP]. The reason why a lower copy of *það* cannot be pronounced is then trivial: there are no lower copies of *það*. There are still lower copies of the indefinite; in fact, a copy of it must be present in the infinitival [Spec,IP], given that the MCLP forces it to pass through this position (see Bošković 2001b for discussion of which copy of a multimember nontrivial chain is pronounced in cases where the highest copy cannot be pronounced for PF reasons; the choice turns out not to be completely free). The only way to save the construction in question from a PF violation is then to pronounce a lower copy of the indefinite, which gives the order [expletive V indefinite]. I conclude therefore that, given plausible theoretical assumptions, the Icelandic construction under consideration provides further evidence that expletives do not move, a position that ultimately provides evidence against the EPP.

To summarize the discussion in section 5.5, I presented a number of arguments that expletive constructions (i.e., constructions where the highest [Spec,IP] is filled by an expletive) and nonexpletive constructions (i.e., constructions where the highest [Spec,IP] is filled by a nonexpletive NP) differ with respect to the creation of intermediate [Spec,IP]s. I argued that expletives do not move—they are inserted directly into their surface positions. The conclusion that expletives do not move has a number of important consequences. First, Moro (1997)-style and Sabel (2000)-style analyses of expletive constructions, where expletives are introduced into the structure lower than [Spec,IP] and then move to [Spec,IP], cannot be maintained.[55]

[54] There may actually be more than one copy of each of the subjects within the matrix clause (see Bošković 2001b:178), a possibility I ignore in (70). Note also that I ignore the derivation in which the indefinite in the abstract pattern in (68) is located in the matrix [Spec,CP] and the expletive in the matrix [Spec,IP], given that, as is well known, *það* is incompatible with clausemate topicalization. For an account of this fact that does not extend to the derivations considered with respect to (70) (i.e., it has nothing to say about the ungrammaticality of these derivations), see Jónsson 1996 (pp. 49–50).

[55] Both Moro's (1997) and Sabel's (2000) analyses crucially involve expletive movement. For Moro, the expletive undergoes predicate raising to [Spec,IP]. Sabel, on the other hand, generates the expletive as a constituent with its associate and then moves it to [Spec,IP].

There is also evidence here against the EPP. Given that expletives do not move, intermediate [Spec,IP]s do not exist in expletive constructions—a straightforward argument against the EPP.

Based on the discussion so far, I conclude that the EPP is to be eliminated from the grammar. In certain constructions, the EPP simply does not hold—that is, there are clauses whose subject position remains empty. In the cases where the EPP does appear to hold, its effects are derivable from independent mechanisms, namely the Inverse Case Filter and the MCLP.

6. Consequences: ECM Constructions

I now return to Lasnik's (1999) argument for the EPP based on his claim that overt object shift is optional. Recall that if overt object shift were optional, the embedded-clause subject could remain within the infinitival clause in (71). The overt object shift derivation can be easily handled without employing the EPP. A question that arises on the no overt object shift derivation is what drives the movement of the subject from the infinitival [Spec,VP] to the infinitival [Spec,IP]. Neither the Inverse Case Filter nor the MCLP can be used to place *John* in (71) in the infinitival [Spec,IP], given that the position is not a Case-licensing position and that it is not an intermediate landing site of a larger A-chain. The EPP, on the other hand, can do the job. Lasnik, in fact, uses the EPP to motivate the movement in question.[56]

(71)   Mary believes John to know French.

Given the arguments against the EPP previously discussed, I conclude that (71) has to be derivable without employing the EPP. I illustrated earlier that the [Spec,IP] of infinitival clauses that do not license null Case remains empty unless the MCLP forces movement through this position. Given that the MCLP is irrelevant for final landing sites of movement, the final landing site of *John* in (71) cannot be the infinitival [Spec,IP]. As discussed earlier, if the EPP is eliminated, we need to assume that overt object shift always takes place in ECM constructions. The movement of ECMed elements can then be driven by the Inverse Case Filter. The element undergoing overt object shift

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[56] Boeckx (2000a) presents an interesting alternative to Lasnik's analysis, arguing that *to* is located lower in the structure than Infl (more precisely, that *to* is Chomsky's [1995] v). As a result, Boeckx argues that the embedded-clause subject in (71), which precedes *to*, can be located in its θ-position. Boeckx then attempts to reanalyze the constructions in which Lasnik claims that no overt object shift takes place as involving no overt movement of the ECMed element at all, thus resolving the potential EPP problem. Although very promising, it is not clear how this analysis could be extended to passive, ergative, and raising constructions like (i), where, according to Lasnik, object shift also does not have to take place overtly. (To extend the analysis to (i), it would be necessary to assume that *Peter* in (i) can also be located in its θ-position at S-structure.)

   (i)   Mary believed Peter to have arrived/to have been arrested/to seem to know
          French.

in ECM constructions passes through the infinitival [Spec,IP]. However, the movement is "licensed" by the MCLP (i.e., it is a reflex of successive cyclicity), not the EPP, which cannot by itself serve as a driving force for A-movement (see section 2).

Given that the optional object shift analysis is inconsistent with the current system, Lasnik's data arguing for optionality of overt object shift with ECM need to be reanalyzed in terms of obligatory overt object shift. Due to space considerations, I will content myself here with sketching out possible solutions to the issues that Lasnik's arguments raise. The reader should bear in mind, however, that the obligatory object shift analysis is based on a simpler theory of Case licensing than the optional object shift analysis, Case (i.e., structural Case; see section 7) always being licensed in the same way in the former but not the latter.

One of Lasnik's arguments for optional object shift concerns the paradigm in (72) and (73).

(72) Everyone is believed not to have arrived yet.

(73) I believe everyone not to have arrived yet.

According to Lasnik, (73) is ambiguous with respect to the possibilities for scope interaction between the universal quantifier and negation. Example (72), on the other hand, is not: the universal quantifier must have scope over negation. Lasnik takes (72) to indicate that scope reconstruction under A-movement is not possible. If this is true, the universal quantifier in (73) must be located at S-structure in a position where negation can scope over it. Lasnik therefore argues that the infinitival subject on the wide scope of negation reading remains in the embedded [Spec,IP]. If the ECMed element had to undergo overt object shift, negation could not scope over it given that there is no scope reconstruction under A-movement.[57]

Lasnik also argues that, for independent reasons, in certain constructions only the overt object shift derivation is available. In such constructions, according to Lasnik, the universal quantifier must scope over negation, which Lasnik interprets as providing evidence that on the wide scope of negation reading, the universal quantifier does not undergo overt object shift. One relevant example is provided by the pseudogapping construction, where, according to Lasnik, object shift must take place overtly. (Recall that Lasnik analyzes (74) as involving overt object shift followed by VP ellipsis.)

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[57] Hiroto Hoshi (personal communication) points out that negation does not seem to c-command/m-command the universal quantifier in (73) even if, as argued by Lasnik, the quantifier is located in the infinitival subject position ([Spec,AgrsP] in the split-Infl framework, which Lasnik adopts). Given Lasnik's claim that there is no scope reconstruction with A-movement, it appears then that negation should not be able to scope over the universal quantifier, even under his assumptions. In other words, some scope reconstruction might be necessary to account for (73). (See, however, later in the paper my discussion of Boeckx's (2000b, 2001a) analysis, where scope reconstruction is not necessary.)

(74) Mary proved every Mersenne number not to be prime, and John will
      every Fibonacci number [~~prove not to be prime~~].

Lasnik observes that the universal quantifier must take wide scope in (74),
which is expected given that it has undergone overt object shift.

   I believe that all the data under consideration can be accounted for in a
way that is consistent with obligatory overt object shift. Consider first the
data in (72) and (73). Suppose that the ECMed element indeed undergoes
overt object shift obligatorily. Let us further assume that, as argued
extensively by Boeckx (2000b, 2001a), wide scope of negation can be
accomplished through LF Neg movement, a sort of QR. Neg raising to a
position above *everyone* takes place in constructions like (73) and *Everyone
isn't here* on the wide scope of negation reading.[58] If we assume either that
the QR of negation is VP-bound (or Agr_OP/vP-bound)[59] or, following Boeckx
(2001a), that the matrix predicate has a blocking effect on the QR of
negation,[60] (72) and (73) follow straightforwardly. LF Neg movement can get
negation to scope over the shifted object but not over the raised subject. As a
result, negation can take wide scope in (73) but not in (72). It is worth noting,
however, that these data are controversial. Thus, according to Hornstein
(1999:65), *not* cannot scope over an adjacent universal quantifier in an
embedded clause.[61] The judgment reported by Hornstein can be
straightforwardly accounted for under the overt object shift analysis even
without assuming LF Neg movement. What about (74), where the universal

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[58] The c-command problem that arises on Lasnik's analysis noted in the previous footnote
does not arise on the Neg-movement analysis. The reader is referred to Boeckx's work (2000b,
2001a) for discussion of this movement. One argument for the Neg-raising analysis, not noted by
Boeckx, is provided by the following construction from Sauerland (2001), where negation can
take scope over the subject quantifier even when the quantifier binds the pronoun *his.*

      (i)   Every child does not seem to his father to be smart.

This is expected under the Neg-raising analysis. Because the wide scope of negation reading is
accomplished by raising negation to a position c-commanding the subject quantifier, there is no
need to reconstruct the subject quantifier to a position below negation to achieve this reading.
The subject quantifier can then be interpreted in its S-structure position, where it c-commands *his*
(see Sauerland 2001 for an alternative analysis). Notice also that the impossibility of the wide
scope reading of the lower quantifier in (ii) on the reading on which the subject quantifier binds
his provides evidence that the subject quantifier cannot be reconstructed on the bound variable
reading of *his.*

      (ii)   Some child seems to his father to hate every subject.

The contrast between (i) and (ii) with respect to the availability of the narrow-scope reading of
the subject quantifier when it binds *his* is thus accounted for under Boeckx's Neg-raising analysis
of the wide scope of negation reading.
[59] The movement could involve VP or Agr_OP/vP adjunction.
[60] Boeckx (2001a) treats the Neg movement under consideration as head movement,
instantiating the blocking effect in terms of a relativized minimality violation.
[61] Norbert Hornstein informs me that for him the universal quantifier must have wide scope
with respect to negation in both (72) and (73). Note also that, with respect to (73), Lasnik
(1999:199) himself observes that the wide scope of negation reading is somewhat disfavored in
comparison with the wide scope of the universal quantifier reading.

quantifier indeed must take wide scope? There is an interfering factor in (74). The remnant of pseudogapping is focused, and it is well known that focus facilitates wide scope. It is therefore quite likely that the universal quantifier must have wide scope in (74) because it is focused, which makes (74) irrelevant for the current purposes.

Let us now reconsider (23).

(23) a. The mathematician made every even number out not to be the sum of two primes.
    b. The mathematician made out every even number not to be the sum of two primes.

Recall that, according to Lasnik, negation can take wide scope in (23b) but not (23a). Lasnik's account of the data is based on optional overt object shift. He claims that the possibilities for object shift are disambiguated in particle constructions. When the ECMed NP precedes the particle, it has undergone overt object shift, and when it does not, it has not. These data then support his claim that overt object shift results in obligatory wide scope of the universal quantifier. It is worth noting, however, that the data are again controversial. Norbert Hornstein (personal communication) informs me that for him negation must have narrow scope in both (23a,b), which can be easily accommodated under the overt object shift analysis. Let us see, however, whether Lasnik's judgments can be accommodated under this analysis.

Lasnik's strategy in accounting for the judgments is to keep the position of the particle constant and vary the position of the ECMed element. (This causes some complications with respect to how Case is licensed in the constructions in question that do not arise under the current analysis.) Suppose, however, that instead of assuming different positions for the ECMed NP we assume different positions for *out*, keeping the position of the ECMed NP constant. Under this analysis, overt object shift is obligatory—that is, the ECMed NP always undergoes it. *Out* can be located either higher or lower than the object shift position. (I refer to the phrase where *out* is located as OutP. The reader should not attach too much importance to the term, which is used strictly for ease of exposition. The exact nature of the phrase is left open.)

(75) a. [$_{AgroP}$ ECM-NP [$_{OutP}$ out [$_{IP}$ ... Neg ...
    b. [$_{OutP}$ out [$_{AgroP}$ ECM-NP [$_{IP}$ ... Neg ...

I would like to suggest that the scope of negation is OutP bound. In other words, *out* has the same effect as C with respect to the boundedness of QR. *Out* thus has a blocking effect on the QR of negation. Given the previous discussion of the wide scope of negation reading, this gives a straightforward account of the data in (23).

Lasnik gives several additional arguments for optional overt object shift in the *make out* construction. He observes that the ECMed element can bind the anaphor within the matrix adverbial in (76a) but not (76b). He shows that, given his assumption that LF movement cannot affect binding relations, the data can be accounted for under the optional overt object shift analysis. Recall that for Lasnik the ECMed element undergoes overt object shift, which moves it into the matrix clause, in (76a) but not (76b). As a result, it can bind the anaphor only in (76a).

(76) a.   The DA made the defendants out to be guilty during each other's trials.
      b.   *The DA made out the defendants to be guilty during each other's trials.

There is, however, an alternative analysis of the data in question. I continue to assume obligatory overt object shift, with the structures in (75). A question arises concerning the position of the adverb *during each other's trials* in V+particle constructions. I suggest that the adverb is adjoined to OutP. It follows then that the ECMed NP c-commands the anaphor in (76a) but not (76b).[62]

It is well known that, in contrast to full NPs, pronouns (more precisely, weak pronouns) must precede the particle in V+particle constructions:

(77) a.   John made him out to be a fool.
      b.   *John made out him to be a fool.

Lasnik analyzes these facts by assuming that, whereas overt object shift is optional with full NPs, it must take place with unstressed pronouns.[63] As an alternative analysis of these facts that is consistent with the obligatory overt object shift analysis and still follows the spirit of Lasnik's proposal, I suggest that unstressed accusative pronouns are located higher in the structure than the corresponding full NPs (see also Bošković 2001a, 2002b and Koopman 1999). They undergo overt object shift like full NPs and then proceed with movement to a higher position, which explains why they always precede *out*.

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[62] Lasnik presents additional data of the same type (e.g., he shows that NPI licensing patterns with anaphor binding in the relevant respect), which can also be straightforwardly accounted for under the current analysis. More precisely, the current analysis of anaphor binding readily extends to the additional data. The same holds for Lasnik's (2000) data concerning Superiority effects in V+particle ECM constructions, given the natural assumption that, like the non-*wh* time adverbial in (76), the *wh* time adverbial *when* is adjoined to OutP in V+particle constructions.

[63] Lasnik also appeals to the latter assumption to account for the Condition C effect in (i).

(i)   *The DA proved her$_i$ to be guilty during Mary's$_i$ trial.

Under his assumption that covert movement does not affect binding, we cannot obtain a Condition C effect in (i) unless the pronoun obligatorily moves overtly into the matrix clause.

In Bošković 2001a, 2002b, I provide independent evidence for this analysis and argue that the movement in question involves cliticization. One of my arguments is based on the following paradigm concerning quantifier float.

(78) a.   I hate them all.
      b.   *I hate the students all.

Whereas an accusative pronoun can license quantifier float in a simple transitive construction, an accusative NP cannot. In Bošković 2001a, 2002b, I propose an analysis of quantifier float that bans floating of quantifiers in θ-positions. The gist of the analysis is that a floated quantifier blocks θ-role assignment, a state of affairs that is shown to be deducible from independently motivated mechanisms of the grammar. The problem with (78b) is then that, even if the NP undergoes overt object shift, stranding behind the quantifier under this movement, the floated quantifier is located in a θ-position, which is disallowed. (I argue that (ia,b) from fn. 12 are ungrammatical for the same reason.) What about (78a)? The grammaticality of (78a) immediately follows if the pronoun undergoes further movement from the overt object shift position, because the quantifier can then be stranded in the object shift position, a non-θ-position. I argue that the movement in question involves cliticization (see also Postal 1974 for cliticization in English). The cliticization analysis explains why the pronoun in (78a) must be unstressed and why it cannot be coordinated, as illustrated in (79). (Recall that clitics cannot be coordinated.)[64]

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[64] Notice that even coordinated and stressed pronouns can precede *out*.

    (i)   a. John made him and her out to be fools.
          b. John made HIM out to be a fool.

This is unsurprising, given that the structure in (75a) is available to all pronouns, in fact all NPs. What is important is that stressed and coordinated NPs can also follow *out*, an option that is not available to unstressed pronouns.

    (ii)   a. John made out him and her to be fools.
           b. John made out HIM to be a fool.

The examples in (ii) instantiate the option in (75b). Whereas that option may be available to unstressed pronouns, such pronouns undergo cliticization from the object shift position, as a result of which they end up obligatorily preceding *out*.

There is actually some evidence that the option (75b) may not be at all available to clitic pronouns. Consider (iii).

    (iii)   a. John made them all out.
           b. *John made them out all.

Example (iiia) is straightforward. Given the option (75a), *all* can be floated in the object shift position, a non-θ-position, with the pronoun undergoing cliticization from that position. However, it appears that if the option (75b) were available to clitic pronouns, (iiib) would remain unaccounted for. Under this option, on which *out* is located above the object shift position, *all* could be floated in the object shift position in (iiib), with the pronoun cliticizing from that position. I conclude, therefore, that the option (75b) is not available to clitic pronouns. Why not? It seems plausible that *out* has a blocking effect on clitic movement; in other words, cliticization across *out* is disallowed. (Assuming that cliticization involves head movement, we are dealing here with head movement across an intervening head, in violation of the Head Movement Constraint.)

(79) a. *Mary hates THEM all.
      b. *Mary hates him and her both.
      c.   Mary hates them both.

7. Simple Transitive Accusative Constructions

So far I have mostly confined the discussion of Lasnik's (1999) arguments for optional overt object shift to ECM constructions, arguing that Lasnik's data can be accounted for even if overt object shift is obligatory in ECM constructions. I have mostly ignored simple transitive accusative constructions. (I briefly discussed the pseudogapping construction in (74), which turned out to be irrelevant to the current concerns because of the focus requirement on the remnant of pseudogapping.) In this section, I examine the status of simple transitive accusative with respect to object shift.

In Bošković 1997a, I argue that simple transitive accusative and ECM accusative differ with respect to object shift. One of my arguments concerns the following paradigm.

(80) a.   What did you buy when?
      b.   When did you buy what?
      c.   Whom did John prove to be guilty when?
      d. *When did John prove whom to be guilty?

As discussed in section 2.3, the contrast between (80c) and (80d) (more precisely, the ungrammaticality of (80d)) provides evidence for obligatory overt object shift with ECM. If *whom must* move to the matrix [Spec,Agr$_O$P], we can easily account for the fact that *whom* rather than *when* moves to [Spec,CP] in (80c,d). As a result of overt object shift, *whom* ends up being higher in the structure than *when* prior to *wh*-movement. Consequently, the Superiority Condition requires that *whom*, rather than *when*, moves to [Spec,CP]. Notice, however, that with simple transitive constructions either the accusative NP or the adverb moves to [Spec,C], as shown in (80a,b). If the accusative NP in (80a,b) had to undergo overt object shift we would expect it to have to move to [Spec,CP], on a par with the accusative NP in (80c,d). Based on this, I argued that the accusative NP in simple transitive constructions does not have to undergo overt object shift. The most straightforward way of accounting for the data seems to be to assume that accusative NPs in simple transitive constructions undergo overt object shift only optionally.[65] In (80a), the overt object shift option is taken, hence the

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[65] Under the analysis presented in Bošković 1997a, overt object shift with accusative NPs in simple transitives actually takes place only if the NP proceeds with further movement from the object shift position (see also Bošković 1997c and Chomsky 1999). The position I take here is thus slightly different from my previous position.

accusative NP moves to [Spec,CP]. On the other hand, in (80b) the no overt object shift option is taken, hence the adverb moves to [Spec,CP].[66]

Consider now (81).

(81)   a.   Who did Bill select [a painting of *t*]?
       b.   ?*Who was [a painting of *t*] selected?

Example (81b) illustrates the Subject Condition effect. Branigan (1992) and Bošković (1997a) observe that if the object in (81a) had to undergo overt object shift, (81a,b) would involve very similar configurations (extraction out of [Spec,Agr$_O$P] and [Spec,Agr$_S$P], respectively). In fact, under the accounts of the Subject Condition effect given by Takahashi (1994) and Ormazabal, Uriagereka, and Uribe-Echevarria (1994), which blame the ungrammaticality of (81b) on the fact that the construction involves extraction out of a head of a nontrivial chain, we would expect (81a) to be as bad as (81b) if the direct object had to undergo overt object shift because (81a) would then also involve extraction out of a head of a nontrivial chain. (Nunes & Uriagereka [2000] and Uriagereka's [1999] analyses of the Subject Condition, which quite generally block extraction out of specifiers, would also rule out (81a) on a par with (81b) if it involved overt object shift.)

Recall now that Lasnik argues that the pseudogapping construction must involve overt object shift. (As discussed previously, he argues that pseudogapping involves ellipsis of the VP out of which the remnant of pseudogapping has moved.) Significantly, as observed in Lasnik 2000, extraction out of a pseudogapping remnant is degraded.

(82)   a.   Bill selected a painting of John, and Susan should [a photograph of Mary]$_i$ [$_{VP}$ ~~select *t*$_i$~~]
       b.   ?*Who will Bill select [a painting of *t*], and who$_j$ will Susan [a photograph of *t*$_j$]$_i$ [$_{VP}$ ~~select *t*$_i$~~]

Lasnik observes that these data can be accounted for if overt object shift indeed occurs only optionally in simple transitives. Example (82b) is degraded because overt object shift is the only option in pseudogapping constructions. (More precisely, overt object shift is a prerequisite for pseudogapping.) In (81a), on the other hand, nothing prevents us from taking the no overt object shift option. As a result, only (82b) must involve extraction out of a head of a nontrivial chain.

Lasnik (2000) observes that the following data provide further evidence for this analysis:

[66] Notice that when the overt shift object option is forced, as in Lasnik's (2000) *When did you call whom up*, where *whom* precedes the particle hence must have undergone overt object shift, as expected, *when* is not allowed to move to [Spec,CP]. Also as expected, the construction in question contrasts with *When did you call up whom.*

(83) a.   The special prosecutor questioned two aides of a senator during
            each other's trials.
      b.   ??Which senator$_i$ did the special prosecutor question [two aides of
            t_i] during each other's trials.

Assume that, as argued by Lasnik, only overt movement can create binding
possibilities. In (83a) nothing prevents us from taking the overt object shift
option, which places the object high enough in the tree to bind the anaphor
within the adverbial. (Lasnik assumes that the adverbial is higher than the
object prior to object shift.) On the other hand, in (83b) we are faced with
contradictory requirements. If the direct object undergoes overt object shift, it
will be high enough to bind the anaphor. However, the construction then
involves extraction out of a head of a nontrivial chain—in other words, a
Subject Condition configuration. If we leave the direct object in situ within
VP, no problem arises with respect to locality conditions on movement.
However, the object will then not be able to bind the anaphor. The contrast
between (83a) and (83b), as well as the contrast between (81a) and (83b), is
thus accounted for.

     So, where does this leave us? Object shift must take place overtly in ECM
constructions. However, it is optional in simple transitive constructions. How
can we account for this state of affairs? We cannot adopt Lasnik's analysis,
because it is designed to make overt object shift optional in both ECM and
simple transitive constructions. In particular, Lasnik proposes that the Agr$_O$P
projection can be, but does not have to be, inserted overtly. If it is inserted
overtly, overt object shift takes place (in fact, it must take place). If it is not, it
does not. The analysis cannot make the required difference between the ECM
accusative and the simple transitive accusative. The state of affairs we have
ended up with is pretty close (though not identical) to what is argued in
Bošković 1997a, where I claimed that overt object shift is obligatory with the
ECM accusative but does not take place at all with the simple transitive
accusative unless this accusative proceeds with further movement from the
overt object shift position. However, the analysis of this given in Bošković
1997a is not completely consistent with the current theoretical assumptions. I
will, therefore, make an alternative proposal here.

     I propose that accusative can be either structural or inherent.[67] By taking
the structural Case option, we obligatorily get overt object shift, structural
Case requiring overt licensing. Let us further assume that inherent Case
differs from structural Case in that it does not require movement to
[Spec,Agr$_O$P]. Essentially following Chomsky (1986b), let us assume that it
is licensed in situ under θ-role assignment.[68] Therefore, if the inherent Case
option is taken for an accusative NP, no overt object shift takes place.

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[67] It is possible that not all languages pattern with English in this respect. For example, it is
possible that this does not hold for languages where accusative and oblique (typically inherent)
cases differ morphologically.
[68] See, however, Stjepanović 1997.

Depending on whether the structural or the inherent Case option is taken, we thus get either the overt object shift or the no overt object shift derivation for simple transitive accusative NPs. As for the ECM accusative, the inherent Case option is ruled out due to the association of inherent Case with θ-licensing, ECMed NPs not being θ-marked by their Case licensor. This analysis gives a straightforward account of the different behavior of the ECM accusative and the simple transitive accusative with respect to overt object shift, only the former requiring it.

8. Conclusion

The main conclusion of this article is that the EPP can be, and should be, eliminated. I showed that in a number of constructions the EPP does not hold at all. Where it does appear to hold, its effects follow from independent mechanisms of the grammar. "Final EPP" follows from Case theory, which leads to the conclusion that overt object shift is obligatory in English in ECM constructions, though not necessarily in simple transitives, where I argued that overt object shift is optional. "Intermediate EPP" is selective. Intermediate [Spec,IP]s are filled as a result of the requirement of successive cyclicity (i.e., locality); otherwise they remain empty, which is unexpected if the EPP were to hold. In particular, intermediate [Spec,IP]s remain empty (more precisely, they are not created) in constructions involving expletive subjects, which I have argued do not raise at all. This in turn provides evidence against Moro (1997)-style and Sabel (2000)-style analyses of expletive constructions, which crucially rely on expletive movement. I also argued that the requirement of successive cyclicity should not be tied to a property of intermediate heads, as in the feature-checking/filled-specifier requirement approach to successive cyclicity, but to a property of the movement itself. A number of additional conclusions have been reached concerning the proper analysis of a variety of constructions and phenomena that significantly restrict the possibilities available in the system.

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