On the Distribution of Null Complementizers

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The article provides a comprehensive account of the distribution of the null complementizer in English that does not appeal to the notion of government, thus contributing to the minimalist goal of eliminating arbitrary relations such as government. The account is based on Pesetsky's (1992) proposal that the null complementizer is a PF affix, which we instantiate through the affix-hopping approach to affixation. We also provide an account of several subject/object asymmetries with respect to extraction out of various clausal arguments.

Keywords: adjacency, affix hopping, government, null complementizer, PF/Morphological Merger, subject/object asymmetries

Until the advent of the Minimalist Program, the notion of government played a pervasive role in principles-and-parameters approaches to the theory of grammar. Since then, because of the arbitrary nature of the relation, the role of government has been reevaluated. Most phenomena where Government-Binding Theory assumed government to be crucially involved are handled under minimalism without an appeal to government. This is true, for example, of Case theory (see, e.g., Chomsky 1993, Lasnik 1993) and the distribution of PRO (see, e.g., Bošković 1997b, Chomsky and Lasnik 1993, Hornstein 1999, 2000, Martin 1996, 2001). There are also promising lines of research concerning locality restrictions on movement and licensing of traces (see, e.g., Boeckx 2001, Chomsky 1995, 2001, Nunes and Uriagereka 2000, Stepanov 2001, Takahashi 1994), as well as Conditions A and B (see, e.g., Ausín 2001, Boeckx 2000, Chomsky 1993:43, Hornstein 2000, Kayne 2001, Lasnik 1993, Reinhart and Reuland 1993), that do not involve government.

One phenomenon that still awaits a principled nongovernment account is the licensing of the null complementizer (C) in English. Consider the following data:

(1) a. (?)It was widely believed [$_{CP}$ C [$_{IP}$ he liked linguistics]].
b. It was widely believed [$_{CP}$ that [$_{IP}$ he liked linguistics]].

(2) a. *[$_{CP}$ C [$_{IP}$ He liked linguistics]] was widely believed.
b. [$_{CP}$ That [$_{IP}$ he liked linguistics]] was widely believed.

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Whereas in (1) the complement of *believed* can be headed by either *that* or a null complementizer, in (2) it must be headed by *that*.[1] Stowell (1981) argues that these facts, and the distribution of null complementizers in general, can be accounted for if null complementizers are subject to the Empty Category Principle (ECP).[2] (2a) is then ruled out because the null C is not properly governed. In (1a), the null C is properly governed by the verb.[3] Pesetsky (1992) (for much relevant discussion, see also Ormazabal 1995) proposes a very interesting alternative analysis of the distribution of the null C that, with a minor modification, will enable us to account for this distribution without appealing to the notion of government, thus eliminating one of the last arguments for it. We will also show that our modified version of Pesetsky's analysis has empirical advantages over both Stowell's and Pesetsky's original analyses.

Pesetsky proposes that the null complementizer is an affix that must undergo attachment to a lexical head. In constructions like (1a), the affixation takes place through head movement of C to V. Under Pesetsky's analysis, constructions in which a null C is not possible are ruled out either because C-movement results in a violation of locality restrictions on movement and/or licensing of traces, or because it results in a violation of Myers's Generalization, which states that complex words that are derived through affixation of a phonologically null morpheme do not permit further affixation (for discussion, see Allen 1978, Fabb 1984, Myers 1984). Pesetsky appeals to the former account in cases where the offending null C heads a complement of a verb, and to the latter account in cases where the offending null C heads a complement of a noun. We defer discussion of the latter until section 2. Pesetsky rules out (2a) by appealing to the ECP. More precisely, according to Pesetsky, the construction is ruled out because it involves head movement of the null C out of an island, namely, a subject. Alternatively, assuming the Proper Binding Condition (PBC), (2a) can be ruled out because the affixed C, which undergoes C-to-V movement, does not c-command its trace (see Ormazabal 1995).

In section 1, we show that although illuminating, Pesetsky's analysis of cases where a null C is not allowed to head a complement of a verb faces certain empirical problems. Following Bošković (1997b), we suggest a minor modification of Pesetsky's analysis that avoids these problems. In section 2, we turn to constructions in which the null C heads a CP dominated by an NP (i.e., where the licenser of a null C is a noun), which Pesetsky handles by appealing to Myers's Generalization. In section 3, we discuss a case where *wh*-movement ends up licensing

[1] See also footnote 20 concerning (1a).

Note that in this article, we will not discuss why certain verbs do not allow the null C (see, e.g., Erteschik 1973, Hegarty 1992, Stowell 1981). As far as we can tell, the theories of null C licensing considered here cannot be teased apart on the basis of the well-known fact that some verbs prohibit their complement from being headed by null C only in certain contexts (see examples in (3)), and some verbs prohibit this altogether. In what follows, we therefore ignore verbs that disallow null C complements.

[2] The ECP analysis of the distribution of null complementizers was actually first proposed in Kayne 1981, which was circulated in 1979. Stowell, however, considerably expanded it.

[3] Bošković (1997b), Doherty (1997), and Grimshaw (1997) argue that the *that*-less clausal complement in (1)–(2) is an IP. As discussed in Bošković 1997b, under the IP analysis Stowell's account can be recast in terms of an ECP requirement on I (or Agr_S in the split-I framework). See Bošković 1997b:29 for relevant discussion.

the null C. In section 4, we discuss null C licensing in extraposed clauses. In section 5, we discuss *that*-less finite clauses in clausal double object constructions. Section 6 is the conclusion.

1 Null C Licensed by a Verb

Subject clauses are not the only context where a null C cannot appear in a clause that is interpreted as a complement of a verb. The full relevant paradigm from Bošković 1997b is given in (3). As shown in (4), the constructions in (3) become acceptable if the null C is replaced by *that*.[4]

(3) a. *It seemed at that time [$_{CP}$ C [$_{IP}$ David had left]].
b. *What the students believe is [$_{CP}$ C [$_{IP}$ they will pass the exam]].
c. *They suspected and we believed [$_{CP}$ C [$_{IP}$ Peter would visit the hospital]].
d. *Mary believed Peter finished school and Bill [$_{CP}$ C [$_{IP}$ Peter got a job]].
e. *[$_{CP}$ C [$_{IP}$ John likes Mary]] Jane didn't believe.

(4) a. It seemed at that time [$_{CP}$ that [$_{IP}$ David had left]].
b. What the students believe is [$_{CP}$ that [$_{IP}$ they will pass the exam]].
c. They suspected and we believed [$_{CP}$ that [$_{IP}$ Peter would visit the hospital]].
d. Mary believed that Peter finished school and Bill [$_{CP}$ that [$_{IP}$ Peter got a job]].
e. [$_{CP}$ That [$_{IP}$ John likes Mary]] Jane didn't believe.

(3) shows that, in addition to being barred from the subject clause context, the null C cannot be licensed in extraposition, pseudoclefting, right node raising (RNR), gapping, and topicalization contexts. The ECP/PBC analysis of (2b) can be straightforwardly extended to the topicalization context in (3e) and the pseudoclefting context in (3b).[5] It could also be extended to the RNR construction in (3c) if that construction is analyzed in terms of rightward across-the-board (ATB) movement of the RNRed constituent, which would presumably take the RNRed element outside

[4] The judgments given here correspond to those reported in the relevant literature (in addition to Bošković 1997b, see, for example, Postal 1974 for pseudocleft, right node raising, gapping, and extraposition examples; Stowell 1981 for topicalization examples; Aoun et al. 1987 for right node raising, gapping, and extraposition examples; Pesetsky 1992 for pseudocleft and gapping examples; and Hornstein and Lightfoot 1991 for right node raising, gapping, and extraposition examples). Admittedly, there is some variation among speakers with respect to some of the contrasts between the null C constructions and their overt C counterparts in (3)–(4). (Our informants—most of them nonlinguists—overwhelmingly agree that the examples in (3) contrast with the corresponding ones in (4) in the reported direction.) We leave investigation of the idiolectal differences for another occasion, and concentrate on the idiolects where the contrasts reported in the literature and (3)–(4) hold.

[5] The underlying assumption here is that the copula is not a proper host for the affix C, which means that C has to get affixed to (i.e., undergo head movement to) *believe* in (3b).

It is well known that there are reconstruction effects involving the *wh*-clause and the post-*be* constituent in pseudoclefts. However, Bošković (1997c) shows that, as illustrated by (ia–b), the binding requirement on traces created in overt syntax cannot be satisfied under reconstruction in pseudoclefts, which is what is important for our current discussion.

(i) a. *What John$_i$ seems is [$_{IP}$ t$_i$ to be crazy].
b. *What John$_i$ gave$_j$ was [$_{VP}$ t$_i$ t$_j$ [$_{VP}$ Mary t$_j$ a book]].

Notice also that, as observed by Higgins (1973) and Hankamer (1974), the post-*be* constituent is an island for movement.

(ii) *Who$_i$ do you think that what John did was confuse t$_i$?

the c-command domain of the verb. However, Kayne (1994) and Bošković (in press b) have revived Wexler and Culicover's (1980) analysis of RNR, on which the RNRed element is located in its base-generated position in the second conjunct and is deleted in the first conjunct in PF.[6]

(5) *They [$_{VP}$ suspected ~~Peter would visit the hospital~~] and we [$_{VP}$ believed Peter would visit the hospital].

Under this analysis, the null C c-commands the trace created by C-to-V affixation in (3c). In fact, (3c) does not differ in any relevant respect from (1a). If PF deletion is the right account of RNR, Pesetsky's analysis of (2a) cannot be extended to (3c).[7] Notice also that, as noted by Wexler and Culicover, RNRed elements are not islands for extraction. In fact, as illustrated by (6), even adjuncts can be extracted out of them. This shows that Pesetsky's analysis of (2a), stated in terms of the ECP, cannot be extended to (3c).

(6) a. Who$_i$ did they believe, and Mary claim, [that Peter had murdered t_i]?
b. How$_i$ did they believe, and Mary claim, [that Peter had murdered John t_i]?

Concerning (3a), we seem to be in a similar situation as with respect to (3c). If extraposition involves rightward movement, Pesetsky's analysis of (2a)—in particular, the PBC version of

[6] Wexler and Culicover (1980), Kayne (1994), and Bošković (in press b) give a battery of arguments for the superiority of the PF deletion analysis over the rightward movement analysis. We repeat two arguments from these works here. Wexler and Culicover observe that the shared constituent in RNR can be buried within an island, as illustrated by (i), which is unexpected under the movement analysis of RNR but not under the base-generation analysis.

(i) Mary knows a man who buys, and Bill knows a man who sells, pictures of Fred.

Bošković (in press b) observes several parallelisms between ellipsis and RNR, which can be easily captured if RNR involves ellipsis, as in Wexler and Culicover's analysis. Thus, Bošković observes that VP-ellipsis and RNR of a VP pattern in the same way with respect to what kind of inflectional features they can ignore. The data in (ii)–(iii) illustrate the parallelism.

(ii) a. ?John was sleeping in her office, and Peter will ~~sleep in her office~~ too.
b. John has slept in her house, and now Peter will ~~sleep in her house~~.
c. John may be questioning our motives, but Bill hasn't ~~questioned our motives~~.
d. John will sleep in her house, and Peter already has ~~slept in her house~~.
e. *John won't enter the championship, but Jane is ~~entering the championship~~.
f. *John was being obnoxious, and Jane will ~~be obnoxious~~ too.

(iii) a. ?John will ~~sleep in her office~~, and Peter definitely was, sleeping in her office.
b. John will ~~sleep in her house~~, and Peter already has, slept in her house.
c. John hasn't ~~questioned our motives~~, but Bill may be, questioning our motives.
d. John has ~~slept in her house~~, and Peter definitely will, sleep in her house.
e. *John is ~~entering the championship~~, but Jane won't, enter the championship.
f. *John will ~~be obnoxious~~, and Jane actually was, being obnoxious.

Bošković (in press b) also observes that VP-preposing, a movement process, differs from VP-ellipsis and RNR with respect to the possibility of ignoring inflectional differences of verbal elements. Thus, (iva–c), which indicate that the relevant inflectional differences cannot be ignored under (ATB) movement, contrast with (iiia–c), a contrast that in turn provides evidence that RNR does not involve ATB movement.

(iv) a. *[Sleeping in her office]$_i$, (Peter was t_i and) John will t_i.
b. *[Slept in her house]$_i$, (John has t_i and) Peter will t_i.
c. *[Questioning our motives]$_i$, (John may be t_i and) Peter hasn't t_i.

[7] The construction in (3c) is also a problem for Stowell's (1981) account. The same holds for (3d), discussed below. See also the discussion regarding (6) and (8), which indicate that RNRed elements and complements of gapped verbs are not barriers to government.

it—can be easily extended to (3a). If it does not, as argued by Larson (1988) and Kayne (1994), (3a) also appears to become a problem. Notice, however, that, as observed by Ross (1974), extraposed elements are islands for movement. (Note the contrast between (7a–b) and (7c–d). Ross actually did not explicitly discuss extraposed clauses.) This indicates that extending Pesetsky's analysis of (2a) to (3c) may be a viable move.

(7) a. ??What$_i$ did they believe at that time [that Peter fixed t_i]?
b. *How$_i$ did they believe at that time [that Peter fixed the car t_i]?
c. At that time, what$_i$ did they believe [that Peter fixed t_i]?
d. At that time, how$_i$ did they believe [that Peter fixed the car t_i]?

Finally, the gapping construction in (3d) seems to be the most obvious problem, since Pesetsky's analysis of (2a) does not seem to be extendable to (3d).[8] Notice also that complements of gapped verbs are not islands for movement, as shown by (8).

(8) a. What$_i$ did Mary believe [that John proved t_i] and Peter [that Bill disproved t_i]?
b. How$_i$ did Mary believe [that John proved the theorem t_i] and Peter [that Bill disproved the theorem t_i]?

On closer scrutiny, it turns out that Pesetsky's account of (2a) also faces a problem. (The same holds for the extension of (2a) to (3a,e) suggested above.) Given the derivation in (9), the null C c-commands and properly governs the trace created by C-to-V movement right after the movement takes place, although it does not c-command it or properly govern it at S-Structure. If the ECP and PBC are satisfiable derivationally, they are then not violated in the construction in question.[9] The same holds if the PBC reduces to the requirement that movement always take place to a c-commanding position (see Chomsky 1995 in this respect).

(9) a. was widely believed [$_{CP}$ C [$_{IP}$ he liked linguistics]]
b. was widely believed + C$_i$ [$_{CP}$ t_i [$_{IP}$ he liked linguistics]]
c. [$_{CP}$ t_i [$_{IP}$ he liked linguistics]] was widely believed + C$_i$

It thus appears that (2a) also remains unaccounted for.

Bošković (1997b), however, suggests a minor modification of Pesetsky's analysis of (2a) that solves the problem at hand. The modified analysis can also be readily extended to the paradigm

[8] Pesetsky (1992:161) essentially stipulates that gapped verbs do not count as governors (see also Aoun et al. 1987). (Notice that for Pesetsky, it is the verb that licenses the trace of C-to-V movement with respect to the ECP, not the C itself, which makes his analysis very close to Stowell's.)

[9] For relevant discussion of the ECP, see Chomsky and Lasnik 1993, where the ECP is checked on line. The well-known examples of remnant movement (see, e.g., Den Besten and Webelhuth 1987, 1990, Huang 1993, Thiersch 1985) suggest that the PBC is also satisfiable derivationally. It is worth noting here that Takano (2000) claims that a phrase whose head has moved out of it cannot undergo remnant movement, which is exactly what takes place in the case under consideration. However, a number of authors have reported acceptable instances of such movement. Thus, Müller (1998: 260–261) claims that a VP from which the verb has been extracted can be moved in German. Abels (2001) provides another example of this type from Russian, Koizumi (1995) from Japanese, Dekydtspotter (1992) from French, and Huang (1997) from Chinese. Tang (1998) presents an additional context from Chinese and Müller (1998:265) from German in which a phrase undergoes movement after its head moves out of it. Such movement is also routine in Kayne's (1998) system (see also Koopman and Szabolcsi 2000). Given this evidence, we assume that remnant movement of a phrase whose head has moved out of it is in principle possible.

in (3), as we will now demonstrate. Suppose that, as suggested briefly in Bošković 1997b, C-to-V affixation does not take place through C-to-V movement, but through something like Chomsky's (1957) affix hopping, revived as Morphological Merger by Halle and Marantz (1993), Bobaljik (1994, 1995), and Lasnik (1995d). (We will refer to Morphological Merger as *PF Merger,* to emphasize which component it takes place in. See also the discussion below for a more precise characterization of what kinds of elements can host the C affix.) Under the PF Merger conception of affixation, an affix is phonologically realized on a host only if it is adjacent to it in PF. In (2a), Merger between the verb and the null C is blocked because the heads in question are not adjacent in PF. The construction is then straightforwardly ruled out by the presence of a stranded affix. The ECP and the PBC are irrelevant, since C-to-V movement does not take place under this analysis. The analysis immediately extends to (3a,b,e), where, as in (2a), *believe* and the null C are not adjacent in PF (see also footnote 5 concerning (3b)).[10] What about (3c)? It is well

[10] Bobaljik (1994, 1995) stipulates that adjuncts do not count for the purpose of PF adjacency relevant to merger. The stipulation raises a problem for the PF Merger account of (3a) if the phrase preceding the extraposed element is analyzed as an adjunct, since in that case it would not block the merger of the verb and the null C.

Bobaljik's assumption is motivated by constructions like (ia–b), where he assumes I merges with the verb across the adjunct.

(i) a. John quickly left.
b. John completely lost his mind.

Lasnik (in press), however, proposes an alternative analysis of (ia–b) that does not require making the obviously problematic assumption that adjuncts do not count for the purpose of PF adjacency. Lasnik suggests that *quickly* and *completely* (the analysis is extendable to other ''intervening'' adjuncts in English) can sometimes be located above T so that they do not interfere with the merger of T and the verb. Evidence that they can occur above T is provided by (iia–b), given that *do* is located in T. (*He* and *quickly/completely* could be located in different specifiers of the same projection, or in different projections, given the split-I hypothesis.)

(ii) a. John said that he would leave, and he quickly did.
b. John partially lost his mind, and Bill completely did.

Furthermore, Bošković (2001a,b) provides evidence that adjuncts do interfere with PF Merger, which is surely the null hypothesis. Bošković analyzes the notorious subject gap restriction on Icelandic stylistic fronting in terms of PF Merger. More precisely, Bošković argues that the stylistically fronted element *ekki* 'not' in (iiia–b) undergoes leftward head adjunction to a null head, which is a verbal affix and therefore must merge with the verb. The analysis straightforwardly explains why the subject must be null in the stylistic fronting construction. (See the structures in (iv). The stylistically fronted element is italicized.)

(iii) a. Þetta er maður sem *ekki* hefur leikið nítíu leiki.
this is a man that not has played ninety games
'This is a man that has not played ninety games.'
b. *Ég held að *ekki* Halldór hafi séð þessa mynd.
I think that not Halldor has seen this film
'I think that Halldor has not seen this film.'

(iv) a. þetta er maður sem *ekki* + F t hefur leikið nítíu leiki
b. *ég held að *ekki* + F Halldór hafi séð þessa mynd

Bošković further observes the ungrammaticality of constructions like (v) and interprets it as indicating that adjuncts do block PF Merger. (Since the stylistically fronted element in (v) is head-adjoined to the affix head undergoing merger, in contrast to what happens in (i), in (v) it is not possible to place the adjunct in a position in which it would not intervene between the affix head and the verb.)

(v) *Þetta er maður sem *ekki* + F í dag/á Íslandi/í gær hefur leikið nítíu leiki.
this is a man that not today/in Iceland/yesterday has played ninety games
'This is a man that has not played ninety games today/in Iceland/yesterday.'

known that RNRed elements are parsed as separate intonational phrases. (Notice that they are normally flanked by pauses.) If, as argued in Bošković 2001a, intonational phrase boundaries block affixation, (3c) can be easily accommodated under the PF Merger analysis even if we adopt Wexler and Culicover's (1980) analysis of RNR, on which the RNRed element is located in its base-generated position. The intonational phrase boundary located between the verb and the null C in the second conjunct blocks the merger of the verb and the null C. (In less technical terms, the problem with (3c) is that a pause intervenes between a host and its affix.)[11] Finally, (3d) can also be straightforwardly accounted for if we assume Johnson's (1994) analysis of gapping, which treats gapping as ATB V-movement. Under Johnson's analysis, (3d) has the S-Structure representation in (10).

(10) *Mary believed$_i$ t$_i$ [$_{CP}$ C [$_{IP}$ Peter finished school]] and Bill t$_i$ [$_{CP}$ C [$_{IP}$ Peter got a job]]

Since the verb and the null C in the second conjunct are not adjacent, the affixation fails and the construction is ruled out as a violation of the Stranded Affix Filter.[12] If we do not adopt Johnson's analysis and assume that gapping involves PF V-deletion and that the verb and the null C are linearly adjacent prior to gapping, we can still account for (3d) if we assume that gapping, understood now in terms of PF deletion, precedes PF Merger in PF.[13] Under this analysis, (3d) also contains a stranded C affix. Notice also that under the PF Merger analysis, the fact that RNRed elements and complements of gapped verbs are not islands for movement (i.e., that they are not barriers) does not raise a problem, as it did for Stowell's and Pesetsky's analyses. We therefore conclude that the data in (3), and the contrast between (3) and (4), can be accounted for in a principled way under the PF Merger analysis, and without appealing to government, a conceptually appealing result.[14]

[11] In this respect, it is worth noting that, as discussed below, an intonational phrase boundary also precedes the null C in constructions like (3a), so that the C affix cannot hop onto the verb in **It was thought by those involved you should give her a second chance,* an example due to an anonymous reviewer.

Klaus Abels points out to us that there is an alternative derivation of (3c) that must also be excluded. Suppose only IP is the target of RNR, with the null C ''left behind.'' In both conjuncts, C should then be able to merge with the V. We suggest that this derivation is ruled out independently of any affixal requirements. On the analysis of RNR that we adopt, the missing material in the first conjunct was the target of an ellipsis operation. But declarative C (unlike interrogative C, in sluicing constructions) never licenses ellipsis of its complement IP, even when something passes through its Spec,CP, as the following example from Bošković 1997b shows:

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

Note that (ii) is then good only on the derivation where the whole CP is elided.

(ii) Who did Bill believe ~~[$_{CP}$ t C would murder Peter]~~, and Mary claim, would murder Peter?

[12] Notice that under Pesetsky's analysis, C-to-V affixation in (10) could take place through ATB C-to-V movement.

[13] Under this analysis, it is necessary to assume that gapping involves both V- and I-deletion; otherwise, even a simple gapping construction like *Mary kissed John and Jane Bill* would involve a violation of the Stranded Affix Filter under the assumption that English finite I is also an affix (see, e.g., Chomsky 1957, Halle and Marantz 1993, Bobaljik 1994, 1995, Lasnik 1995d). In this respect, note the grammaticality of *Mary will kiss John and Jane Bill,* where both V and I are deleted.

[14] In what follows, we will attempt to move what seem to us unavoidable stipulations regarding the distribution of the null C from syntax, where they are placed in current accounts, to morphology, where we believe they fit more naturally. In this respect, we again emphasize the important role adjacency plays in the distribution of the null C.

2 Null C (Not) Licensed by a Noun

We now turn to null Cs heading a complement of a noun. It is well known that a null C is not allowed in that environment.[15]

(11) a. I heard about the proof that Mary did it.
b. *I heard about the proof C Mary did it.

Pesetsky (1992) suggests an account of (11) in terms of Myers's Generalization, which states that complex words derived through affixation of a phonologically null morpheme (zero-derived words) do not permit further affixation of derivational morphemes. Assuming that the clausal complement of both *prove* and *proof* is headed by a null complementizer that must undergo incorporation into a lexical head owing to its [+affix] status, (11b) involves a configuration that is disallowed by Myers's Generalization: namely, one with a derivational affix attached outside of a complex word of which the zero morpheme forms a part.

(12) [[[proof] C] Nominalizer]

According to Pesetsky, C moves to V before the V and the nominalizer affix are combined.[16] The order is crucial to Pesetsky's analysis; otherwise, the construction would not involve affixation to a zero-derived word. We could try to incorporate Pesetsky's analysis into the PF Merger analysis. However, ensuring the right order of affixation is quite tricky under this analysis, though perhaps not impossible.[17]

A more serious problem is the fact that nonderived nouns also require *that* in their complement.

(13) a. I heard about the fact that Mary did it.
b. *I heard about the fact C Mary did it.

Since, in contrast to *proof, fact* is apparently not derived and thus does not contain a nominalizer affix, it appears that the ungrammaticality of (13b) cannot be explained by appealing to Myers's Generalization. To account for (13b), Pesetsky suggests that nonderived nouns are actually also derived when taking a clausal complement.[18] Given that suggestion, the analysis of (11b) can be extended to (13b).

Is there a way of accounting for the ungrammaticality of both (11b) and (13b) under the C-affixation analysis that would not appeal to the complicating assumption that all nouns are derived

[15] Here, we will discuss only finite complements of nouns. For discussion of infinitival complements of nouns, see Bošković 1997b, where it is shown that the question of licensing a null C does not arise because of interfering factors.

[16] More precisely, C moves to V, after which the C + V complex head-moves to the nominalizer affix. For relevant discussion, see also Ormazabal 1995.

[17] Given that the C + V affixation takes place in PF, under this analysis we would need to assume that the V + nominalizer affixation also takes place in PF, possibly through PF head movement, which would need to be ordered after PF Merger.

[18] Pesetsky suggests that for a semantic reason that he leaves open, nonderived nouns cannot take clauses as arguments at D-Structure. As a result, all instances of nouns with clausal complements have to be nominalizations of verbs or adjectives that take a clausal complement. For relevant discussion, see also Ormazabal 1995.

when taking a clausal complement? One straightforward way of accounting for both (11b) and (13b), which we will adopt here, is to assume that the null C cannot take just any lexical head as a host.[19] More precisely, it can be hosted only by [+V] elements.[20] This assumption, which is rooted in the well-established fact that affixes have subcategorization requirements, rules out the possibility of both derived and nonderived nouns taking a null C complement, while still allowing the null C to head a complement of a verb or an adjective.

We now turn to the licensing of the null C in relative clauses. As illustrated in (14), a null C can occur in a relative clause, but only if it is adjacent to the head noun.[21]

(14) a. The child [$_{CP}$ Op C [$_{IP}$ Alexis was waiting for t]] was lost.
b. *The child was lost [$_{CP}$ Op C [$_{IP}$ Alexis was waiting for t]].
c. The child [$_{CP}$ Op that Alexis was waiting for t] was lost.
d. The child was lost [$_{CP}$ Op that Alexis was waiting for t].

This fact is problematic for both Stowell's and Pesetsky's ECP analyses. Given that relative clauses are barriers to government (see Chomsky 1986), a null C should not be able to occur in relative clauses (see also Baker 1988 for evidence that head movement out of adjuncts is not possible). The data in (14), however, can be quite straightforwardly accounted for under the PF Merger analysis. It is standardly assumed that relative clauses and complement clauses are not headed by the same C (see, e.g., Lasnik and Saito 1992, Rizzi 1990). As a result, we would not necessarily expect the null C in relative clauses to have the same lexical specification with respect to affixhood as the C in complement clauses. We therefore suggest that the null C heading relative clauses can be hosted by a noun. This gives us an account of (14a–b). (14b) is ruled out because the null C cannot merge with the head noun of the relative clause, the two not being adjacent in PF. Adjacency is satisfied in the grammatical (14a).[22] The fact that the relative clause in (14a)

[19] The proposal is compatible with both the PF Merger and the head movement instantiations of the C-affixation analysis (the same holds for the proposal about the relative clause C made with respect to (14) below).

[20] Adjectival constructions like *I'm afraid he left* are standardly considered to be acceptable (see, e.g., Stowell 1981: 412), which indicates that the null C is hosted by [+V] elements, given that adjectives are specified as [+V, +N]. Some speakers, however, seem to find adjectival null C constructions somewhat degraded. If the judgment split is real, we can account for it by assuming that for the latter speakers, the null C must be hosted by a [+V, −N] element. Below, we disregard this variety. (These remarks may also be relevant to passive constructions like (1a), given that passive verbs are sometimes considered neutralized verb-adjectives.)

Although we would not be surprised if some variation exists, we do not necessarily expect to find (a great deal of) speaker variation with respect to the exact affix specification of the null C, given that there is surprisingly little variation with respect to other such elements in English (e.g., *-ed, -ing, -s*). In this respect, it is worth noting that an anonymous reviewer finds constructions like (13b) acceptable. It is possible that for this speaker, the noun can host the C affix (or that the C in (13b) is not an affix). Note, however, that all our informants find constructions like (13b) unacceptable. The literature also uniformly treats such constructions as unacceptable (see, e.g., Pesetsky 1992, Stowell 1981).

[21] An anonymous reviewer finds (14b) acceptable. However, all our informants find it unacceptable.

[22] Concerning *wh*-relatives like (i), we can assume either that the null C of such relatives is not an affix (see in this respect section 3), or that the null C is an affix but that it can be hosted by the relative *wh*-element.

(i) the woman [$_{CP}$ who$_i$ C [$_{IP}$ John likes t$_i$]]

A potential problem is raised by constructions like (ii).

(ii) *A woman arrived yesterday [$_{CP}$ Op$_i$ C [$_{IP}$ Mary likes t$_i$]].

A question arises why *yesterday* or for that matter *Mary* cannot host the relative clause affix in (ii). One possibility is

is a barrier to government, problematic for Stowell's and Pesetsky's ECP analyses, is irrelevant under the PF Merger analysis.[23]

3 Null C Undergoing Specifier-Head Agreement

In this section, we discuss a potential problem concerning *wh*-movement, namely, (15) and its contrast with (16).[24]

(15) ?Who$_i$ do you believe sincerely [$_{CP}$ t_i C [$_{IP}$ t_i likes Natasha]]?

(16) *What$_i$ do you believe sincerely Natasha likes t_i?

We speculate, essentially following Chomsky (2000, 2001), that there are actually two distinct null indicative (i.e., nonrelative) Cs, one with an ''EPP feature'' and one without. Then, suppose that this difference is accompanied by another one: the non-EPP null C is an affix, while the EPP null C is not.[25] This proposal has no effect on the analyses already presented, since none of the cases discussed earlier involved movement out of the relevant clause, hence all necessarily involved the non-EPP null C; when there is no movement at all out of a clause, Spec,CP will never be filled. (15), however, involves the nonaffixal EPP null C. Being nonaffixal, this C need not be adjacent to V. As for (16), it must not be the case that the null C could be this nonaffixal one. Suppose, then, that movement through Spec,CP obtains only if necessary to satisfy locality (see Bošković 2002). Suppose further, contra Lasnik and Saito (1992), that adjunction to IP provides escape from a clause. Then, in (16), locality would not force the selection of the EPP C; thus, plausibly, that C could not be selected.[26] But the non-EPP C, being an affix, would wind up stranded. The final question is why this same line of reasoning does not extend to (15). If it did, (15) would incorrectly be ruled out, on a par with (16). Here, we accept a claim made by Lasnik and Saito (1992), which they argue extensively for, that adjunction of the subject to IP is not

to assume that the affix can be hosted only by the relative clause head. This could be instantiated by positing a [+rel] feature and assuming that the host of the relative clause affix must be specified as [+rel]. The relative head, but not *yesterday* or *Mary,* would bear this feature in (ii). In fact, it is clear that the relative C, which agrees with the element in its Spec, must agree with the relative head. Appealing to Lasnik's (1995a) requirement that an affix and its host not disagree in their feature specification may then give us a more general account of why only the relative clause head (possibly in addition to the relative *wh*-phrase; see (i)) can host the relative C affix. (See section 4, especially footnote 31, for an additional way of ruling out the possibility of *yesterday* and *Mary* hosting the null C in (ii). For the alternative analysis, it is important that a trace intervenes between the C and *Mary,* given the system developed in section 3.)

[23] One could try to account for (14) under Pesetsky's analysis by assuming that the null C of relative clauses is not an affix at all. While the assumption would account for (14a), it would leave the ungrammaticality of (14b) unaccounted for.

[24] For discussion of (15), see Snyder and Rothstein 1992. Note that both constructions involve extraction out of a weak, extraposition island. Still, (15) is better than (16), a judgment we interpret as indicating that (16) involves an additional violation.

[25] Given that, as argued below, *wh*-trace blocks affixation, the EPP C actually has to be nonaffixal (a *wh*-trace always intervenes between this C and the higher verb).

[26] Chomsky (2000:109, 2001:34) also suggests that the EPP C in question is selected only when locality requires it. Admittedly, the suggestion involves some look-ahead.

allowed.[27] Given this constraint, the only way extraction of the subject can satisfy locality is by proceeding via Spec,CP. But this demands (hence allows) the EPP null C, which, we have claimed, is not an affix.

Significantly, RNR and gapping examples that are ruled out via the affixation requirement on the null C also improve with Ā-extraction of the subject, as expected. Compare (17a) with (17b), and (17c) with (17d). ((17a) is due to an anonymous reviewer.)

(17) a. Who did they believe, and Mary claim, would murder Peter?
b. *They believed, and Mary claimed, John would murder Peter.
c. ?Who did Mary believe bought a car and Peter sold a house?
d. *Mary believed John bought a car and Peter John sold a house.

The ameliorating effect of subject Ā-extraction on null C RNR and gapping constructions can be accounted for in the same way as the ameliorating effect of such extraction on null C extraposition constructions.

The above analysis of (15)–(16) also extends to the notorious *que-qui* alternation in French. As is well known, the complementizer *qui* occurs only with subject extraction. With object extraction, the complementizer *que* occurs. (The options given in (18) are the only possibilities for the embedded C.)

(18) a. Qu' as- tu cru qui a été cassé?
what have you believed that has been broken
'What did you believe was broken?'
b. Qu' as- tu cru que Pierre a cassé?
what have you believed that Pierre has broken
'What did you believe that Pierre broke?'

If we assume that *qui* is a C with an EPP feature and *que* is a C without an EPP feature, the

[27] Lasnik and Saito's main argument for the claim concerns the impossibility of short subject topicalization, assuming that topicalization involves adjunction to IP, as argued extensively by Baltin (1982), Bošković (1997b), Iwakura (1978), Lasnik and Saito (1992), Rochemont (1989), and Saito (1985), among others. Lasnik and Saito present two arguments for the impossibility of short subject topicalization. First, they observe that if subjects could undergo short topicalization (i.e., move from Spec,IP to the IP-adjoined position), **They believe that each other like Mary* should be acceptable, on a par with *They believe that each other, Mary likes.* Second, if subjects could undergo short topicalization, extraction out of subjects should have the same status as extraction out of topics, a prediction that is not borne out, as illustrated by the contrast between ?**Which athletes do you think that pictures of are on sale?* and ?*Which athletes do you think that pictures of, Mary bought?*

Bošković (1997b) provides an additional argument for the impossibility of subject adjunction to IP based on the ungrammaticality of short zero-subject relatives. Bošković (1994b, 1997b) (see also Saito and Murasugi 1999) in fact proposes a condition on chain links that quite generally rules out movement from Spec,XP to the XP-adjoined position. The condition bans movement that is too short; that is, it puts a lower bound on movement (for much relevant discussion, see also Grohmann 2000). It is worth noting here that a version of the condition proposed by Bošković (in press a) bans movement from the YP-adjoined position to Spec,XP, where YP is the complement of X, which may also rule out the EPP C derivation for (16), given some rather straightforward assumptions. (The object *wh*-phrase could not move to Spec,CP from the IP-adjoined position. Note that adopting this line of analysis would make the appeal to selection of the EPP C made in the text unnecessary.)

analysis of the data in (15)–(16) given above can readily be extended to (18). For reasons discussed above, the EPP C, *qui,* must be present with subject extraction, and the non-EPP C, *que,* must be present with object extraction (or, in fact, with anything other than local subject extraction).

4 Null C in Extraposed Clauses

We now turn to the licensing of the null C in ''extraposed'' clauses involving expletives.[28] The relevant data are given in (19).

(19) a. It seems [$_{CP}$ C [$_{IP}$ John likes Mary]].
b. It seems to me [$_{CP}$ C [$_{IP}$ John likes Mary]].
c. It surprised me [$_{CP}$ C [$_{IP}$ Mary left]].
d. It is a pity [$_{CP}$ C [$_{IP}$ John doesn't have any friends]].
e. It's not sure [$_{CP}$ C [$_{IP}$ John has any friends]].
f. It is likely [$_{CP}$ C [$_{IP}$ Mary will read the book]].

We suggest that all extraposed clauses (regardless of whether their Spec is filled) are headed by a null C that is lexically specified as an affix on a lexical category.[29] As a result, the heads immediately preceding the null C in (19) can all host it.

Kayne (1984:3) (see also Bošković 1994a, Stowell 1981:394) makes the interesting observation that null C extraposed clauses do not allow subject extraction, as illustrated in (20).[30]

(20) a. *Who$_i$ is it likely [$_{CP}$ t$_i$ C [$_{IP}$ t$_i$ will read the book]]?
b. ?*Who$_i$ does it appear [$_{CP}$ t$_i$ C [$_{IP}$ t$_i$ likes Mary]]?
c. *John$_i$, it's not sure [$_{CP}$ t$_i$ C [$_{IP}$ t$_i$ has any friends at all]].

Our analysis provides a principled explanation for the ungrammaticality of (20a–c) (see Bošković 1994a, Kayne 1984, and Stowell 1981 for ECP accounts of (20a–c)). Given the discussion in section 3, the *wh*-phrase in (20) must pass through the Spec of the extraposed clause on its way to the matrix Spec,CP. We suggest that the trace of *wh*-movement in the extraposed-clause Spec,CP is responsible for the ungrammaticality of (20a–c). More precisely, we suggest that it blocks

[28] We use the term *extraposition* for ease of exposition, without implying that the embedded clause ever moves from its θ-position in constructions like those in (19).

[29] This may be related to the fact that extraposed clauses are generated adjacent to a variety of lexical categories. Admittedly, the intuition is not easy to formalize. (It is also possible that heads that occur in the context in question bear a special feature, call it X, and that the null C of the clauses under consideration is specified as requiring an X-marked host.) Note also that the selection of a distinct complementizer in extraposed clauses can be easily achieved by appealing to the expletive-associate relation between the expletive *it* and the extraposed clause. (See Bošković 1997b, Shlonsky 1987, and Tanaka 1995 for arguments for the expletive-associate relation in this case. See also Bošković 1997b and Chomsky 1995 for more general discussions of the expletive-associate relation within the Minimalist Program.)

[30] Kayne (1984:8) observes the interesting contrast between (20c) and ?*John, I'm not sure has any friends.*

There is some variation with respect to constructions like (20a–c). In the text, we focus on the judgments reported in the literature. The judgment of the speakers who accept this type of construction could be accounted for if for these speakers the EPP C is a nonaffix even in extraposed clauses.

affixation of the null C on a par with the blocking effect of the *wh*-trace on *wanna*-contraction in constructions like (21a) (cf. (21b)).[31]

(21) a. *Who do you wanna kiss Mary?
b. Who do you want to kiss Mary?

While subject extraction out of extraposed clauses is impossible, object extraction is possible, as shown in (22).

(22) a. What_i is it likely $[_{CP}$ C $[_{IP}$ Mary will read $t_i]]$?
b. Who_i does it appear $[_{CP}$ C $[_{IP}$ Mary likes $t_i]]$?

This follows under our account. Given the discussion in section 3, the object does not have to pass through the embedded Spec,CP. In fact, it is not allowed to pass through it. Rather, it adjoins to the embedded IP. As a result, unlike in (20), a *wh*-trace does not intervene between the null C and its host in (22).[32]

[31] Two remarks are in order here.

Notice that a *wh*-trace also intervenes between C and the embedded I/V.

Note also that we assume that, as argued extensively in Bošković 1997b, English control infinitivals are IPs. Since the CP/IP pair is not present in the embedded clause of constructions like *Who do you wanna kiss?,* we assume that *who* does not have to move through a position above the infinitival I.

Under the current analysis, a question arises with respect to constructions like (i) as to why the nominal head within the matrix adjunct (*time*) cannot host the null C.

(i) *It seemed at that time C John had left.

Notice that even when the extraposed clause is headed by the overt C, as in *It seemed at that time that John had left,* the extraposed clause in this type of construction is preceded by a pause, which we interpret as indicating that an intonational phrase boundary intervenes between the extraposed clause and the adjunct. Following Bošković (2001a) (see also section 1), we assume that intonational phrase boundaries block PF Merger. As a result, the null C cannot affix to *time* in (i). (The analysis can be straightforwardly extended to **Something happened yesterday I couldn't even imagine,* due to an anonymous reviewer.)

This analysis leads us to assume that the null C is parsed into the same intonational phrase as the matrix verb in constructions like *It seems John likes Mary.* In fact, it has been proposed in the literature on prosodic phrasing that a verb and the complementizer heading its complement can be parsed into the same intonational phrase (see Schütze 1994: 90–91 and references therein). Notice also that no pause has to precede the complementizer in *It seems that John likes Mary,* in contrast to *It seemed at that time that John liked Mary.* (It is possible that the two constructions also differ in that the clause moves from its θ-position only in the second construction. The prosodic difference noted above could then be a reflex of a syntactic difference.)

Another question raised by (i) is why the embedded-clause subject cannot host the null C. We leave it open how to block this option.

[32] The same holds in the case of adjunct extraction out of extraposed clauses. We would therefore expect adjunct extraction out of extraposed clauses to be acceptable. It is occasionally suggested (see, e.g., Cinque 1990:2, Li 1993) that this is not the case. We, however, find the examples in (i) to be fully acceptable. (An anonymous reviewer gives the following unacceptable example: **How isn't it sure John fixed the car?* However, the example is independently ruled out because it involves adjunct extraction out of an inner island.)

(i) a. How_i does it seem $[_{CP}$ (that) $[_{IP}$ John fixed the car $t_i]]$?
b. How_i is it likely $[_{CP}$ (that) $[_{IP}$ John fixed the car $t_i]]$?

Interestingly, adjunct extraction is degraded in constructions like (ii), which can be interpreted as providing support for the suggestion made in footnote 31 that the extraposed clause undergoes movement from its θ-position in constructions like (ii), but not in constructions like (i).

(ii) *How_i did it seem at that time $[_{CP}$ that $[_{IP}$ John fixed the car $t_i]]$?

5 *That*-less Clauses in Clausal Double Object Constructions

We now turn to *that*-less clauses in clausal double object constructions, such as (23), taken from Stowell 1981:409.

(23) a. Kevin persuaded Roger his hamburgers were worth trying.
b. Carol convinced Dan she didn't want a cat.
c. Jim advised his parents they should move to Canada.
d. ?Eric reminded the teacher tigers are dangerous.

Notice first that, in contrast to extraposed clauses, *that*-less clauses in clausal double object constructions can follow matrix adjuncts.[33]

(24) a. *It seemed at that time John had left.
b. ?Kevin persuaded Roger yesterday his hamburgers were worth trying.
c. ?Carol convinced Dan at that time she didn't want a cat.

Given that, as discussed in footnote 31, (24a) is ruled out because the null C heading the extraposed clause remains stranded, the grammaticality of (24b) leads us to conclude that the *that*-less embedded clause in (24b) is not headed by an affix C. There are two ways of instantiating this: either the embedded clause in (24b) is headed by a nonaffix C,[34] or it is in fact an IP. In addition to accounting for (24b–c), either analysis can provide an account of the impossibility of subject extraction out of *that*-less clauses in clausal double object constructions, noted by Stowell (1981: 410).[35]

(25) a. *Who$_i$ did Carol convince him [t$_i$ didn't want a cat]?
b. *Who$_i$ did Jim advise them [t$_i$ should move to Canada]?

[33] There is actually some speaker variation with respect to the exact status of (24b–c). What is important for our purposes is that (24b–c) are better than (24a).

[34] The nonaffixhood of the C might be relatable to the lack of adjacency between the C and the verb even in baseline, nonextraposed structures. However, the intuition is not easy to formalize.

[35] Following a suggestion by an anonymous reviewer, we have replaced the lexical NP object from Stowell's examples with an accusative pronoun to avoid a potential garden path/ambiguity with the reading on which the *wh*-phrase is the object of the matrix verb. (That anonymous reviewer finds the constructions in (25) acceptable. However, all of our informants find (25a) unacceptable, and all but one find (25b) unacceptable.)

Note also that Stowell (1981:413) observes that *tell* and *show* are exceptional in that they do allow the type of extraction illustrated in (25), as shown for *tell* by (i), taken from Stowell 1981.

(i) a. Louise told us Danny was mean to her.
b. Who$_i$ did Louise tell us [t$_i$ was mean to her]?

Notice that the CP analysis presented below does leave room for exceptions. Under this analysis, we would need to assume that *tell,* but not the verbs in (25), can take the EPP C complement (see the discussion below). Under the IP analysis of (25), to be given below, we would need to posit a deeper difference between *tell* and the verbs from (25). In particular, we would need to assume that *tell* can take a CP complement. (Given the discussion below, the null C heading the complement of *tell* would have to have additional semantic content; it could not merely specify the declarative force.) Alternatively, ϕ from (26) either would not be present with *tell* or could not specify the declarative force of the complement.

Given the plausible assumption that a *wh*-trace in Spec,IP must be licensed by an agreeing C,[36] the IP analysis provides a straightforward account of the ungrammaticality of (25).[37]

An important question arises under the IP analysis: under what circumstances are finite IPs lacking the CP system permitted? To address the issue, let us examine more closely the structure of clausal double object constructions. Suppose that, as argued by Mulder (1991) (see also Martin 1996), clausal objects in such constructions are not selected directly by the verb. Rather, the verb takes a small clause complement headed by a null particle head, which in turn takes the clausal object as its complement, the NP object being the subject of the small clause.[38]

(26) V [$_{\Phi P}$ NP [$_{\Phi'}$ ϕ Clause]]

We can now make a distinction between the case under consideration and the simple transitive constructions examined in sections 1–2, where V/A/N directly take a clausal complement that we have tacitly assumed always to be a CP. The relevant generalization may be that lexical heads, but not functional ones, have to take the CP complement—in other words, the CP system is required only with clauses functioning as complements of lexical heads. Can the generalization be deduced? Suppose that ϕ can do the job of C, namely, specify the declarative force of a clause. It follows then that C has to be present with complements of V/A/N (as well as in relative clauses), but not in the clausal complement of clausal double object constructions. Our task is still not completely finished since we need to ensure that the clause in (26) cannot be headed by a null C even as an option. Notice first that if the clause in (26) were headed by an affix C, the construction would be ruled out, since the C could not merge with the verb because of the intervening material. In fact, even the nonaffix null C option may be ruled out given Chomsky's (1995) proposal that every element present in the structure must have an effect on PF or LF. Given that ϕ specifies the declarative force of the clause, null C may be completely superfluous in the relevant sense. (Notice that the overt complementizer *that* has an effect on PF; hence, it can still be present in the Clause of (26).)

Turning now to the nonaffix C analysis of the clausal arguments under consideration, which is consistent with the assumption that all finite clauses are CPs, under this analysis we can account for the ungrammaticality of (25) if we assume that the C heading the embedded clause cannot have the EPP feature.[39] Since movement to Spec,CP is then not allowed under the assumption

[36] This is the head government requirement on traces of Government-Binding Theory (see especially Rizzi 1990). We leave it open how to implement it in the minimalist framework.

[37] Here we assume that the infinitival subject moves in overt syntax from the infinitival clause to a Case-checking position in the higher clause (Spec,Agr$_O$P/Spec,vP) in English exceptional Case-marking constructions (see, e.g., Authier 1991, Bošković 1997a,b, 2002, Johnson 1991, Koizumi 1995, Lasnik 1995b,c, Runner 1998, Ura 1993), as a result of which the infinitival Spec,IP in *Who do you believe to know French?* does not contain a *wh*-trace.

[38] We are generalizing Mulder's analysis to all clausal double object constructions.

[39] Under the CP analysis, the null C heading the embedded clause in a clausal double object construction has to be distinct from the null C heading the embedded clause in a simple transitive construction.

An anonymous reviewer observes that there is a gap in the paradigm: there is no affixal EPP C. A principled explanation for the gap is given in footnote 25.

that movement to Spec is allowed only if there is a relevant feature there, and since adjunction to IP is not possible for subjects (see section 3), it follows that the subject cannot be *wh*-moved from a clausal argument in a clausal double object construction. Adjuncts and objects can still be extracted out of such arguments, since the option of IP-adjunction is available to them. (It is in fact forced on them, as discussed in section 3.) As (27) illustrates, adjuncts and objects can indeed be extracted out of the clausal argument in a clausal double object construction (see also Stowell 1981:410).

(27) a. What$_i$ did Kevin persuade Roger [he should try t_i]?
b. What$_i$ did Carol convince Dan [she didn't want t_i]?
c. How$_i$ did Kevin persuade Roger [he should fix the car t_i]?
d. How$_i$ did Carol convince Dan [Mary fixed the car t_i]?

6 Conclusion

In this article, we have provided an account of the distribution of null C in English that does not appeal to the notion of government. We have shown that this account is empirically superior to the government account of the distribution of null C. In fact, to the best of our knowledge, it is the first comprehensive account of the phenomenon. The account is based on Pesetsky's (1992) insight that the null C is a PF affix, which we instantiated through the affix-hopping/PF Merger approach to affixation. Thus, the analysis presented here also provides evidence for this approach to affixation. Additionally, we have provided an account of several subject/object extraction asymmetries. To the extent that we have been successful, we have contributed to the ongoing attempt to eliminate the mechanisms of government from the theory.

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