

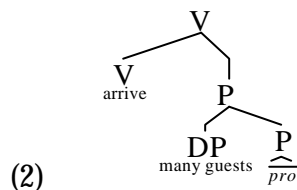
## THERE-INSERTION UNACCUSATIVES

Ken Hale and Jay Keyser  
MIT

There exists a class of English verbs whose members are customarily brought forth as paradigm examples of the unaccusative class. Unlike the much larger class of unaccusatives of the *break*-type, which enter freely into the standard transitivity alternation, verbs of the *arrive*-type at issue here do not transitive; and in addition—to some degree, at least, but often with a tinge of reduced acceptability—they participate in the *there*-insertion construction, as exemplified in (1b):

- (1) (a) Many guests arrived(at the party).  
(b) There arrived many guests (at the party).  
(c) \*Arrived many guests (at the party).  
(d) \*John arrived many guests (at the party).

Following Moro (1997), we maintain that the surface subject of (1a), and the postverbal subject in (1b), originate in the specifier position of a “small clause” complement to the verb *arrive*. In terms of the theory of argument structure being employed here, this verb heads the monadic, (a)-type lexical configuration and takes as its complement the basic dyadic, (b)-type configuration (cf., Hale and Keyser, 1994, 1997):<sup>1</sup>



The inner dyadic component in this construction can, of course, be a fully overt prepositional projection, as in *arrive (many guests) at the party*, but it is a particular lexical feature of the verbs of interest here that they can take a special pronominal element, *there*, construed either with an overt P-projection or with a non-overt locative pronominal, as depicted in (2).

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<sup>1</sup>The (a)-type argument structure configuration is that projected by a head which selects a Complement but does not project a Specifier; the (b)-type, typical of English prepositions, for example, is the configuration projected by a head which selects a Complement and in addition projects a Specifier. The (c)-type, like the (b)-type, has both a Complement and a Specifier; in the (c)-type, however, the appearance of a Specifier is determined primarily by the Complement, typically an adjective, in English (cf., Hale and Keyser, 1997).

English, as is well known, satisfies the Extended Projection Principle (EPP) with *overt* nominal subjects. Consequently, one of two things must happen in order to derive a well-formed English sentence on the basis of (2), avoiding the pro-drop variant (1c). The specifier DP may raise to sentential subject position, arriving ultimately in an appropriate specifier position in the functional matrix, giving (1a). Alternatively, the expletive *there* may be inserted in subject position instead, satisfying the English EPP in that manner. This overt element, we can assume, is inserted only where it is needed—hence only to satisfy the EPP (cf., Chomsky, 1988), and not in the base position dominated by P, where *pro* is evidently possible, perhaps by virtue of incorporation into V (as in Moro, 1997), a detail which we will not consider further.

Either of the two processes just outlined will prevent the ungrammatical (1c). But what prevents (1d)? Transitivity of *there*-insertion unaccusatives is, so far as we can tell, generally impossible:

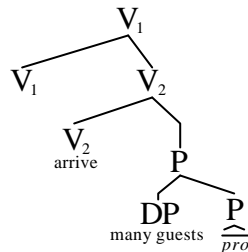
- (3) (a) There arose a problem (in the reasearch design).  
 (a') A problem arose (in the reasearch design).  
 (a'') \*We arose a problem (in the reasearch design).
- (b) There appeared a blemish (on the surface of the vase).  
 (b') A blemish appeared (on the surface of the vase).  
 (b'') \*We appeared a blemish (on the surface of the vase).
- (c) There occurred a riot (on the streets of Laredo).  
 (c') A riot occurred (on the streets of Laredo).  
 (c'') \*They occurred a riot (on the streets of Laredo).

The acceptability of the *there*-insertion sentences (3a-c) is, to say the least, variable among speakers, but there seems to be no variation in judgments of the transitive (double prime) sentences, among adult English speakers, at least. They are judged ungrammatical uniformly.

These are not “ordinary” unaccusatives—unlike the familiar *break*-type of unaccusative, they do not transitivity “automatically”. This, at least, would follow straightforwardly from the structure assigned to them in (2) above. Automatic transitivity is freely possible by virtue of the head-complement relation. It is accomplished by inserting a dyadic structure into the complement position of the monadic (a)-type lexical configuration, and it is successful precisely because the inserted structure is dyadic, i.e., projects a specifier which functions as the surface object of the derived transitive verb. However, (2) is not dyadic in the relevant sense—it *contains* a dyadic structure, but it is not itself

dyadic and, therefore, projects no specifier, hence the impossibility of (4) as a transitive of *arrive*:

(4)



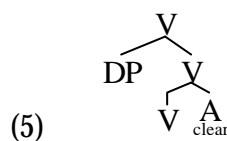
If this were all that needed to be said about the matter, we would have an explanation for the ungrammatical transitives of (1) and (3). But we must go further. What is to prevent the structure in (2) from simply appearing with an *external* subject in sentential syntax? Couldn't *John* in (1d) simply be an external subject, of which (2) is predicated in sentential syntax? This is precisely what happens with other verbs built directly on the monadic argument structure—canonical unergative verbs, for example, have external subjects (e.g., analytic *make trouble*, *build houses*, *have a puppy*, and synthetic *laugh*, *sneeze*, *pup*). And canonical location and locatum verbs—having a structure putatively very like (2)—are consistently transitive (e.g., *put the books on the shelf*, *fit the mare with racing shoes*, *shelve the books*, *shoe the mare*). So why can't (2) take an external subject, giving (1d)?

Before answering, let us summarize. We can set aside the question of automatic transitivization of *arrive*-type unaccusative verbs. It is impossible, to be sure, given the argument structure proposed for them, but we are left with another possible source of transitivity, simple predication of an external argument. However, while ergative and transitive verbs may function as predicates in sentential syntax, taking external subjects, *arrive*-type verbs cannot. This is unexplained as yet.

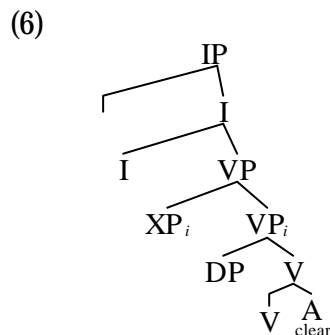
There is a natural temptation to appeal to Case Theory in explaining this asymmetry. If *arrive*-type verbs are simply unable to assign Case to a nominal which they govern, then sentences of the type represented by (1d) would be impossible on those grounds. The there-insertion variant is, in any event, possible by virtue of a Case-transmission mechanism assigning nominative to the post-verbal subject (cf., Safir, 1982:172 et passim). And the alternant with subject raised from Spec of P is derived in the usual manner associated with raising predicates lacking the capacity to assign accusative Case, like English *seem*, *be*, and the passive participle. However, while it is certainly true that *arrive*, and its like, do not assign accusative case, and are therefore “raising” verbs in

the standard sense, this is probably a symptom, rather than the root cause, of the overall lexical and syntactic behavior which they exhibit. The verbs are simply “not transitive”, and their key property is that they do not take an external subject. If they were closet transitives, they might be expected to appear in the passive, circumventing the Case problem, contrary to fact (hence, *\*many guests were arrived at the party*).

Seen in this light, a somewhat more apt comparison is between the there-insertion unaccusatives and the “pure” unaccusatives—i.e., the inchoative alternants of the *break*-type unaccusatives. Intransitive *clear*, for example, appears in the composite dyadic lexical projection depicted in (5):



This shares with (2) the property that it cannot appear directly in sentential syntax with an external subject. Again, the reason could be Case, DP being unable to “get Case” if prevented from raising to Spec of the appropriate functional projection (Infl, or T). This is an idea which is worth exploring, but it is not actually clear that Case Theory, in and of itself, could rule out the use of (5) with an external subject. Suppose, for example, this structure were in fact to enter into construction with an external subject, as in (6):



Here we employ the conventional symbol VP to represent the maximal projection of V, an inconsequential notational deviation from the practice used in (5) above. The external subject (XP<sub>i</sub>) is a “distinguished adjunct” to VP—it is the argument of which VP is predicated in sentential syntax, a relation indicated by coindexing (cf., Bittner, 1994, following Williams, 1980). The subject is external to VP, since it is not dominated by VP (i.e., it is not dominated by all segments of VP). But its structural position does conform in basic outline to what is generally termed the “VP-internal Subject Hypothesis” (as formulated in

Koopman and Sportiche, 1991, for example), since  $XP_i$  is dominated by a segment of VP. In (6), we have also supplied VP with a relevant portion of its “extended projection” (cf., Grimshaw, 1991), which we symbolize I(nfl) projecting to IP.

The structure dominated by VP is the lexical structure defined by the heads V and A, the latter the complement of the former. It corresponds to (5) above. Thus, (6) is the structure which results if (5) is supplied with an external argument together with an appropriate extension by functional category. This structure cannot succeed, however. There is no well-formed issue from it. First, it cannot give us a transitive sentence like the well formed *John cleared the screen*. In that clause, the verb c-commands the object (DP); in (6) it does not. Any other theoretically possible output is simply ungrammatical. But why?

As suggested above, it is not clear that the business can be laid entirely at the doorstep of Case Theory. Not entirely. An uninteresting reason for this is that Case Theory is simply too much in flux at the moment, there are too many ways to “block case assignment” to one or another argument position. A more interesting reason is that (6) fails *in spite* of Case Theory. There are a number of theories of case in which Case Licensing is accomplished fully and naturally in configurations of the type represented by (6). These are theories according to which ergative-accusative typology is defined, in part, in terms of the ability of V to assign accusative case (e.g., Bok-Bennema and Groos, 1984; Bittner, 1994; Bittner and Hale, 1996).

Framing the matter in accordance with the principles of the Case Binding theory of Bittner (1994), an argument A satisfies its Case Licensing requirements by one or the other of the following two means:

- (7) CASE LICENSING:
- (a) A is Case Licensed if it is Case Bound.
  - (b) A is Case Licensed if it is governed by a Case-like head (i.e., by K, a Case particle or affix, or by C(omplementizer)).

Simplifying, somewhat, Case Binding is a relation between a head H and an argument A standing in a structural relation characterized jointly by the following criteria:

- (8) CRITERIA FOR CASE BINDING:
- (a) H delimits a small clause.
  - (b) H locally c-commands A.
  - (c) H governs a (bare DP) Case Competitor for A.

Looking now at (6), the candidate Case Binders are the two heads I(nfl) and V. The first delimits a small clause (i.e., a predicate with a distinguished adjunct, in this instance [<sub>VP</sub>XP<sub>i</sub> VP<sub>i</sub>]). It does so by virtue of governing it—this is one of two ways in which a head can delimit a small clause. And V delimits the same small clause by virtue of projecting it. Hence both I(nfl) and V satisfy (8a). However, V fails in relation to the other two criteria; although it locally m-commands DP, a potential bindee, it does not c-command it—there is in fact no A such that V locally c-commands it. And V fails (8b) as well, since, while both XP<sub>i</sub> and DP are potential competitors (structurally), V governs only DP, since XP<sub>i</sub> is beyond V’s governing domain. But I(nfl) fares better. As we have seen, it delimits a small clause. Furthermore, it locally c-commands XP<sub>i</sub>. Now, in relation to (8c), if VP is a barrier, then I(nfl) does not govern DP, a potential Case Competitor. But if DP raises to Specifier of IP, then I(nfl) *does* govern DP and, therefore, satisfies all of (8a-c). In fact, DP must get into the governing domain of a Case-like head—this is accomplished by raising to Specifier of IP, within the governing domain of C. Thus, according to the provisions of the Case-Binding theory, both arguments in (6) are Case Licensed. The external subject is Case-bound, and the specifier DP is licensed by raising to the governing domain of C, a Case-like element.

The scenario just presented is precisely what happens in a so-called “raising ergative language,” according to the Case-Binding theory. Raising ergative languages, like West Greenlandic Inuit and Jirrbal of North Queensland, are those in which the object achieves a prominent structural position, not unlike that of a subject—this prominent position is, by hypothesis, effected by raising from a position internal to VP (i.e., specifier or complement) into a specifier position in the matrix functional configuration (i.e., Specifier of IP in this case). So why can’t (6) be realized as an ergative construction. An uninteresting answer is that English simply doesn’t have an ergative case. But what prevents a sentence like (9), in which the Case-bound subject, XP, realizes its ergative Case as a preposition, say *by*?

(9) \*The screen cleared by John.

Here, the DP phrase *the screen* functions as “surface subject”, being moved to sentential syntactic subject position from Specifier of VP. And *by John*, the ergative, is postposed, as is usual for prepositional phrases in English.

Curiously, (9) is “almost good” in English. However, we assume that it should in fact be taken as ungrammatical, on a straightforward ergative reading—the interpretation it weakly receives is, for us at least, one in which *by* is short for something like *by virtue of* or *by the good graces of*. In any event, (9) is

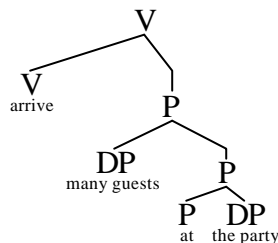
not the grammatical equivalent of the standard transitive *John cleared the screen*, as it would be if it were a true ergative construction.

We will assume (though it is not quite true) that we have eliminated Case as the factor responsible for the inability of (5) to take an external subject. We are left, then, with the original problem. Why is this so? Why can't a simple dyadic argument structure appear with an external argument, as in (6)?

There is an intuitively clear reason for this, it seems to us. The fact is, (5) is "complete", or "saturated". All arguments that are required in order for (5) to enter directly into sentential syntax are present in the lexical projection itself. There is no "open position" in (5). Consequently, an external subject is entirely extraneous and is precluded by virtue of the principle of Full Interpretation (cf., Chomsky, 1986:98 et passim). This is the explanation we favor for well-formed (5) and ill-formed (6).

Now let us reconsider (2), which we take to be representative of intransitive structures headed by verbs of the *arrive* type. Let us redraw the structure of (2) to include the full P-projection, instead of the *pro*-element depicted in (2). This gives a configuration of the type represented in (10):

(10)



Automatic transitivity is excluded, given this structure, for the reasons already given. But we are still left with the question of why (10) cannot simply take an external subject in sentential syntax. As suggested above, Case Theory might be invoked to account for this; the idea is worth reconsidering in this instance, because Case might play a role here, in fact, though we will argue that it is not the sole determining factor. The Case-theoretic story would be that *arrive*, and its fellow there-insertion unaccusatives are inherently intransitive, unable to assign accusative case. The specifier DP in (10) is unable to get Case in its base position and therefore raises to Specifier of IP (stopping first in the distinguish adjunct position, i.e., the "true subject position"). The established existence of a class of raising predicators (like *seem*, *be likely*, and so on) serves as a precedent for this, it could be argued.





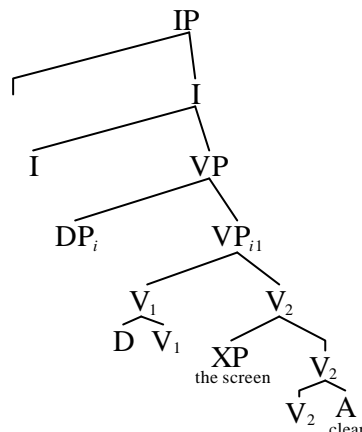
P-projection or the P-projection itself—in the latter case, the surface requirement is fulfilled by the “proxy” expletive element *there*. The same generalization holds of simple unaccusatives like *clear* and *break*, of course, but with the difference that with these the specifier is the sole internal source of the required sentential syntactic subject.

As suggested above, Case Theory has a role to play here; at least it is implicated in the context of the theory of Case briefly outlined above. But in order to show this, it is necessary to say something about how accusative case is assigned, under the assumptions of the Case Binding theory.

Consider again the structures in (11), in which the dominant V locally c-commands the DP in the inner specifier position. This arrangement is one of the primary ones in which a verb is properly poised to assign Case to a DP, or to Case-bind it, in our terms. The verb in question delimits a small clause (by projecting it) and it locally c-commands the potential bindee, i.e., the specifier DP, since there is no closer head which also c-commands that argument. Hence, two of the requirements set out in (8) are met by the dominant V in (11a,b). But if the verb is to Case-bind DP there, it must have within its governing domain a Case Competitor, completing the essential set of requirements.

Most theories of Case attribute to certain nuclear categories (e.g., V, P) the ability to “assign Case”. Moreover, assignment of structural case is generally held to be a capacity which may be present or absent in a given head. In the Case Binding theory, the ability of a head to Case-bind an argument is dependent in part on the presence of an appropriately situated Case Competitor. In an accusative language, like English, the verb is said to “assign” accusative Case—by Case-binding an argument which it locally c-commands. It is a claim of the Case Binding theory that the ability of a verb to Case-bind an argument is due to the presence, within the verb itself, of a nominal element which serves the function of Case Competitor. Being a part of the abstract morphology of the verb, this element is often non-overt, as in English, where its presence is discernible only by virtue of its syntactic effect. But it is often overt, where it is realized in “object agreement” on the verb (cf., Bittner and Hale, 1996b). This V-borne Case Competitor, in the typical accusative language, is categorially a determiner (D), hence pronominal in nature, and it is adjoined to the verbal head, as shown in (12), a modified version of (11a):

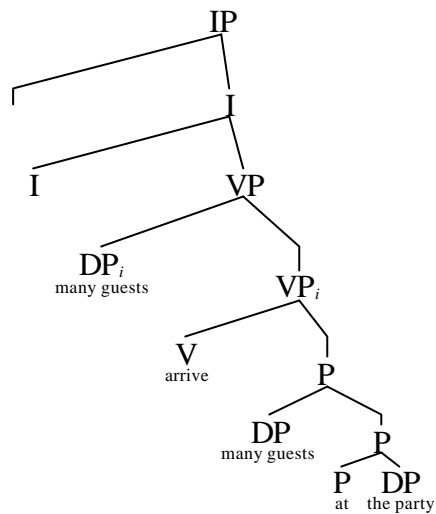
(12)



The relation of interest here is that which holds between  $V_1$  and XP. That verb projects, and therefore delimits, a small clause. It locally c-commands XP, a potential bindee, and it governs a Case Competitor. The subject,  $DP_i$ , cannot be the Case Competitor here, obviously, since that argument is beyond the governing domain of the verb. By assumption, it is the V-adjoined D which fulfills this role—that is the only other possibility. The upper verb,  $V_1$ , therefore Case-binds XP, the specifier projected by the inner verb in accordance with the basic lexical property of its complement, the adjective *clear*. It is the so-called accusative Case which is realized (overtly or covertly) on an argument in the structural position of XP in (12), i.e., in which the Case-binder is a verb. In contrast, as mentioned earlier, the ergative Case is associated with an argument Case-bound by I(nfl).

We can return now to a consideration of the structure assigned to there-insertion unaccusatives like *arrive*. Let us begin with the structures assumed for them, as represented in (2) and (10). In those structures, there is a verb appropriately positioned to Case-bind an argument occupying an internal specifier position, exactly as in the case of (11a), the transitive configuration based on the simple unaccusative. But the there-insertion unaccusatives cannot transitive, as we have seen, because their sentential syntactic subjects must come from an internal position. This result is obtained if we simply assume that V in (13), modified from (10), lacks the adjoined D which would otherwise function as a Case-competitor and force the verb to Case-bind the DP in the specifier position which it locally c-commands:

(13)



Since that DP is not Case-bound, it must, so to speak, "satisfy the Case Filter" by moving to a position in which it is governed by a Case-like head, i.e., C. This is accomplished by moving first to the external subject (distinguished adjunct) position, as shown (leaving a copy in its base position), and then to Specifier of IP (not shown), where it is governed by C.

This "works", but it is unsatisfactory, since it fails to relate the apparent intransitivity of there-insertion unaccusatives to There Insertion itself. We will attempt to make a connection. However, what we will suggest is provisional and, at present, somewhat clumsy.

The V-adjoined D of (12) is sometimes overtly realized as object agreement, as noted. Many languages have "locative" or "areal" agreement in addition to conventional person and number agreement. Navajo is such a language:

(14) NAVAJO AREAL AGREEMENT:

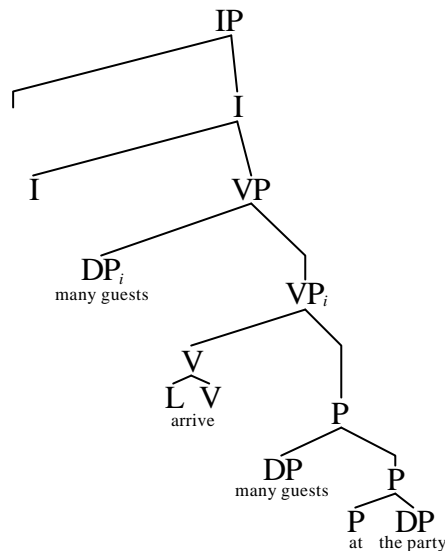
(a) B'éégashii yish'ʔí.  
cow 3o.YPERF.1s.see.PERF  
'I see the cow.'

(b) Bikooh-góyaa hweesh'ʔí.  
arroyo-down.along AREALo.YPERF.1s.see.PERF  
'I see down along the arroyo.'

English is not normally thought of as having this type of agreement, but we would like to suggest that this is exactly what is involved in constructions based

on the there-insertion unaccusatives. In place of the V-adjoined D, there-insertion unaccusatives have an adjoined locative determiner (L), as depicted in (15):

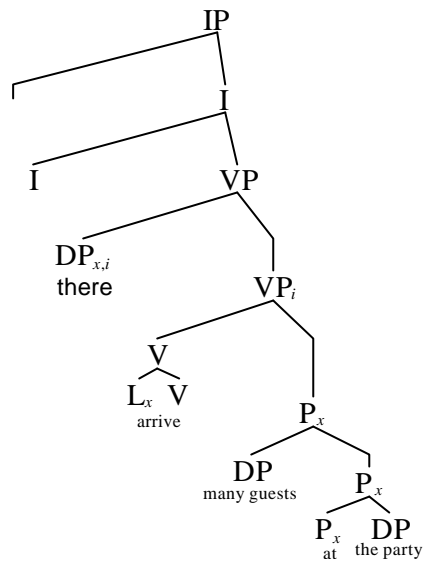
(15)



The adjoined L is not, strictly speaking, nominal, belonging rather to the category normally associated with extended projection of P, rather than the N. If this is true, then V in (15) cannot Case-bind the DP which it locally c-commands. This circumstance permits, and other things being equal, forces that DP to raise in order to satisfy its Case requirements, giving (1a).

There is, however, another alternative available, as we have seen—namely, the There Insertion structure itself, as in (1b). We take the V-adjoined L to be construed with the complement of the verb, i.e., with the P-projection. This is consistent with the notion that it is locative, or areal, agreement. There Insertion, however it is actually achieved, is quite possibly a mechanism whereby the P-projection can be “represented” in subject position. Let us assume that There Insertion involves insertion of *there* in subject position and coindexation of *there* with the V-adjoined L. The latter is, of course, coindexed with P by virtue of agreement. The proposed structure for (1b) is, accordingly, that set out in (16):

(16)



The subject, *there*, is an expletive heading a "chain" of coindexed elements whose foot is P. Ultimately, it raises to Specifier of IP, where its Case requirements are presumably met through its proximity to C.

But how is the DP in Specifier of P licensed? We think it is licensed by the same governing head, namely C. The Case Binding theory recognizes two types of languages within each of the two large classes belonging to the typology of Case. Both ergative and accusative languages can be classified as either transparent or raising. Transparent ergative languages, for example, are those in which the object (the absolutive, or nominative argument) is licensed *in situ*, unraised. These are the so-called "morphologically" ergative languages, so termed because the object does not give evidence of being in a prominent or high structural position. They are in the majority among ergative languages, evidently. In contrast, raising ergative languages are those in which the object must raise to satisfy the requirement that it be governed by a Case-like head. The difference depends on transparency to government—if IP and VP are barriers to government from C, then raising is necessary, as in Inuit and Jirrbal. If these categories are transparent, i.e., do not function as barriers, then raising is not necessary (and precluded, presumably)—as in Warlpiri, Mayan, and ergative Polynesian. The same division among languages is found in accusative languages—if IP is a barrier, raising of the nominative subject is required, as in English; if IP is transparent, the nominative subject is licensed *in situ*. One way in which transparency can be induced is by verb-raising (V to I(nfl) and then to C), creating, in effect, a composite head. This establishes a head-to-head dependency which effectively removes the barrierhood of the maximal projection of each head. Another circumstance which gives rise to transparency

is the presence of an *a priori* dependency across maximal projections (cf., Bittner and Hale, 1996b).

We suggest that the DP in specifier of P in (16), and generally in structures of this type, is licensed *in situ*. It is governed by C by virtue of transparency. The transparency relation is established by There Insertion, which creates a chain extending from Specifier of IP to P. We assume that this removes the barrierhood of both IP and VP, at least for the purposes of licensing the argument in question—i.e., DP in Specifier of P. This argument is, so to speak, parasitic on *there* for its Case requirements.

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