

# Relativized Minimality and the Extended Peeking Principle\*

Jairo Nunes (Universidade de São Paulo)

**ABSTRACT:** This paper shows that Belletti's (1988) and Raposo and Uriagereka's (1990) arguments against long distance nominative assignment in *GB* carry over to long distance agreement within the Agree-based model (Chomsky 2000, 2001). To solve this problem, the paper proposes that any  $\phi$ -set counts as a barrier for  $\phi$ -agreement across it, regardless of whether or not it is "complete". From this perspective, true long distance agreement only takes place if associated with the EPP, which is conceived of as an empowering feature that enlarges the search domain of a given probe.

## 1. Introduction

Chomsky (1995) has advanced the interesting hypothesis that part of the motivation for the syntactic operations of the computational system is the need to eliminate uninterpretable features, so that one may obtain legible syntactic objects at LF. Since then, part of the minimalist agenda has been devoted to determining how exactly this feature elimination procedure operates. One particular implementation of this procedure with far-reaching consequences is the introduction of the operation Agree (Chomsky 2000, 2001). Assuming that [+interpretable] features are intrinsically valued, whereas [-interpretable] features acquire their specific value in the course of the derivation, Chomsky (2001) proposes that Agree establishes a relation between valued and unvalued features of the same type and as a result, the unvalued features are assigned values for purposes of morphological computations and are removed from the computation leading to LF.

One of the distinctive properties of this new operation is that it establishes relations between elements that are not in the same minimal domain. Take the derivation of simple sentences such as the ones in (1) below, for instance. Earlier minimalist models analyzed the Case and agreement relations between T and *a man* in (1) in terms of a local relation between them. Details differed with respect to whether such local relation should be interpreted in terms of Spec-head (Chomsky 1993, for instance) or feature adjunction (Chomsky 1995), but the common property was the assumption that if X were to check features against Y, X should be in the minimal domain of Y (at some point in the computation). By contrast, under the Agree-based alternative, the relevant configurations for Case and agreement between T and *a man* in (1) are the ones represented in (2) and in neither case is the DP (the *goal*) in the minimal domain of its checker (the *probe*). The fact that *a man* ends up moving to [Spec,TP] in (2a) is attributed to the EPP property of T and is, strictly speaking, orthogonal to the agreement relation between T and *a man*.

(1)    a.    A man kicked the ball.  
          b.    There is a man in the room.

(2)    a.     $[_{\text{TP}} \text{T} [_{\text{VP}} [\text{a man}] [_{\text{V}} \text{v} \dots]]]$   
          b.     $[_{\text{TP}} \text{T} [_{\text{VP}} \text{is} [\text{a man}] \dots]]$

---

\* The discussion presented here is part of on-going research projects supported by CNPq (grants 308176/2005-7 and 401148/2006-8) and FAPESP (2006/00965-2). I would like to thank Norbert Hornstein for his comments and suggestions on an early draft of this paper and Carol Petersen for her editorial help.

Case and agreement relations involving configurations such as (2) were taken to be somewhat exceptional in the *GB* era. The configuration between T and *a man* in (2a), for instance, mirrors the government configuration licensing exceptional Case marking in English (see Chomsky 1986, for instance). In turn, given that minimality should prevent T in (2b) from governing the object of the verb, special provisos were required to account for the Case and agreement properties of (1b). For instance, Infl was taken to govern and assign Case to the expletive in its Spec in a well-behaved fashion and such Case would then be “transmitted” to *a man* (see Burzio 1986, for instance).

In this paper I show that the intuition behind *GB*’s treatment of the configurations in (2) as unorthodox is essentially correct. I will revisit Belletti’s (1988) and Raposo and Uriagereka’s (1990) empirical arguments against *GB* analyses that allowed *a man* in a structure such as (2b) to receive nominative Case *in situ* and show that their arguments carry over to the Agree-based analysis offered in Chomsky’s (2001) *Derivation by Phase* (henceforth *DbP*). I will argue that the old arguments are still damaging due to the specific details of the feature valuation mechanism assumed in *DbP* and its corresponding requirement that minimality should be relaxed. Exploring an interpretation of Rizzi’s (1990) relativized minimality within the Agree-based system, I will show that not only do the empirical problems not arise, but we may also find a rationale for why the language faculty has an odd creature such as the EPP-feature.

The paper is organized as follows. In section 2, I briefly present the specific details of *DbP*’s analysis of passive sentences that will be relevant to our discussion and show that the problems raised by Belletti (1988) and Raposo and Uriagereka (1990) with respect to nonlocal nominative Case assignment also apply to the *DbP* system. In section 3, I show that these problems can be solved if we assume that  $\phi$ -sets are able to induce minimality effects regardless of their “completeness”. In section 4, I then deal with the issue of why otherwise illicit long distance agreement relations are allowed if overt movement is involved. Finally, a brief conclusion is presented in section 5.

## 2. Feature Valuation and Relaxation of Minimality in *DbP*

The *DbP* analysis of a simple passive sentence such as (3) below (see Chomsky 2001:17-19) rests on three assumptions: (i) unvalued uninterpretable features render the head that contains them syntactically active (Chomsky 2001:4); (ii) Case valuation is the reflex of agreement in  $\phi$ -features with a probe containing a “complete”  $\phi$ -set (Chomsky 2001:6), which for the purposes of our discussion is equivalent to a  $\phi$ -set containing an uninterpretable [person] feature; and (iii) a defective  $\phi$ -set does not induce intervention effects due to the Maximization Principle (Chomsky 2001:17), which requires that feature matching under Agree be maximized.

(3) The girls were seen.

Let us examine the role played by each of these assumptions in the derivation of (3). In consonance with assumption (i), the participial head in (4a) below can enter into an agreement relation with the object, as both of them are active, yielding (4b).<sup>1,2</sup>

(4) a.  $[\text{PpleP} \text{ -en}_{[\text{G:}?]/[\text{N:}?]/[\text{Case:}?]} [\text{VP see } [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]}]]$   
b.  $[\text{PpleP} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]} [\text{VP see } [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]}]]$

According to assumption (ii), no Case-valuation takes place in (4b), for no *uninterpretable* [person] feature was involved. After (5a) below is assembled, T enters into an agreement relation with *-en*, valuing its Case-feature as nominative, as shown in (5b).<sup>3</sup> Notice that even though the number feature of *-en* has been valued in (4b), the Maximization Principle prevents T from having its number feature valued upon agreement with *-en* in (5b) (cf. assumption (iii)). Crucially, the  $\phi$ -set of *-en* does not match all the features of the  $\phi$ -set of T.

(5) a.  $[\text{TP } \text{T}_{[\text{P:}?]/[\text{N:}?]/\text{EPP}} [\text{VP be } [\text{PpleP} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]} [\text{VP see } [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]}]]]$   
b.  $[\text{TP } \text{T}_{[\text{P:}?]/[\text{N:}?]/\text{EPP}} [\text{VP be } [\text{PpleP} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:NOM}]} [\text{VP see } [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]}]]]$

Finally, assumption (iii) also ensures that T in (5b) can enter into an agreement relation with the object, “skipping” the defective  $\phi$ -set of *-en*.<sup>4</sup> The Case-feature of the object and the  $\phi$ -

<sup>1</sup> Abbreviations: *FEM*: feminine; *G*: gender; *N*: number; *NOM*: nominative; *P*: person; *PART*: partitive; *PL*: plural; *Pple*: participle; *SG*: singular; *?*: unvalued feature; *I*: first person; *3*: third person. The relevant features checked/valued in a given derivational step are highlighted.

<sup>2</sup> It is immaterial for the present analysis if the participial head is actually a light verb with a defective  $\phi$ -set, as suggested by Chomsky (2001:46, n. 36 and 37). The postulation of a Case feature associated with the participial head of passive constructions is motivated by languages in which passivized verbs agree with the internal argument in gender, number, and Case. The same applies to adjectival small clauses to be discussed below. Actually, there seems to be a complementary distribution between the features person and Case in the  $\phi$ -sets of functional categories. Thus, whereas a finite T is taken to be associated with (gender,) number and person, a participial T is taken to be associated with gender, number, and Case. This seems a natural state of affairs if Case is actually the reflex of agreement with a head containing a [-interpretable] person feature (cf. assumption (ii)).

<sup>3</sup> For purposes of exposition, I will put aside the possibility that finite Ts and “transitive” light verbs may be associated with a gender feature without phonetic manifestation, which is immaterial for the present discussion.

<sup>4</sup> There is an interfering factor which precludes a clear assessment of the role of the Maximization Principle in the derivation of (3), namely, the possibility that the participial head (in languages like English) is also associated with an EPP feature. One could argue that before reaching [Spec,TP], the internal argument lands in [Spec,PpleP] to satisfy the EPP, as illustrated in (ia) below (see Kayne’s (1989) seminal work on the correlation between overt movement and participial agreement). By being in a Spec-head relation, the internal argument and *-en* should then count as equidistant (Chomsky 1995), allowing T in (ib) to enter into an agreement relation with either of them. If T agrees with *the girls* first, it will become inactive and the derivation will crash because the Case-feature of *-en* will not have been valued. On the other hand, if it agrees with *-en* first, it will still be active and able to value the Case-feature of the internal argument, allowing the derivation to converge (see Hornstein, Martins, and Nunes (2006a) for an analysis of passives of perception and causative verbs based on similar considerations about the derivational timing of applications of Agree). In other words, under this approach, the lack of intervention effects by the participial head in the derivation of (3) should be due not to the defective nature of *-en*, but to the fact that the internal argument and the participial head would be equidistant from T.

(i) a.  $[\text{PpleP} [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]} [\text{Pple} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]/\text{EPP} [\text{VP see } t]]]]$   
b.  $[\text{TP } \text{T}_{[\text{P:}?]/[\text{N:}?]/\text{EPP}} [\text{VP be } [\text{PpleP} [\text{the girls}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]} [\text{Pple} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]/\text{EPP} [\text{VP see } t]]]]]$

features of T are then valued and the EPP is checked after the object moves to [Spec,TP], as shown in (6) below. Once all [-interpretable] features are valued for purposes of morphology and removed from the computation leading to LF, the derivation converges and surfaces with superficial Case agreement between the participle and the internal argument, as is commonly observed in languages with rich Case morphology.

(6) [TP [the girls]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:NOM]</sub> [T<sub>[P:3]/[N:PL]/[EPP]</sub> [VP be  
[PpleP -en<sub>[G:FEM]/[N:PL]/[Case:NOM]</sub> [VP see t]]]]]

It is unavoidable that T must be able to reach the internal argument in the derivation of a passive sentence, given that the internal argument surfaces with nominative Case, triggers verbal agreement, and may move to [Spec,TP]. However, the way the Maximization Principle is manipulated to achieve this result is conceptually awkward. First, the claim that T does not have its number feature valued when agreeing with *-en* in (5b) is at odds with the view that Case valuation is a reflex of  $\phi$ -agreement (cf. assumption (ii) above). If strictly speaking there is no  $\phi$ -agreement between T and *-en* in (5b), then how come the participial head has its Case-feature valued? Second, although it makes sense to say that T can agree in person with the internal argument in (5b), for there are no intervening [person] features, the number feature of the intervening participial head should in principle induce a minimality effect and prevent T from agreeing in number with the internal argument. To put it broadly, the null hypothesis concerning minimality is that an agreement relation targeting a feature of type X should be blocked by any intervening feature of the same type.

The proposal that T can freely value the Case of the internal argument of passive constructions also faces serious empirical problems. Consider Romance null subject languages, for instance, which in principle allow the internal argument of a passive construction to remain *in situ*. As extensively discussed by Belletti (1988), the internal argument of passives is in fact allowed to stay *in situ* only if it is indefinite; when a definite DP is involved, the relevant sentences are ungrammatical, as illustrated by the Italian sentences in (7) (Belletti's (18a) and (18b)).

(7) a. È stato messo un libro sul tavolo.  
has been put a book on-the table  
b. \*È stato messo il libro sul tavolo.  
has been put the book on-the table

---

However, this alternative incorrectly rules in Portuguese sentences such as (ii), where the internal argument remains in [Spec,PpleP], and (iii), where the subject also sits in the specifier of a category containing defective  $\phi$ -features (see discussion below).

(ii) \*Foram as meninas vistas.  
were the girls seen  
'The girls were seen.'

(iii) ?\*Ontem em Beirute ficaram [os soldados feridos] (Raposo and Uriagereka's  
(1990) (1a)) yesterday in Beirut became the soldiers wounded

Belletti correctly points out that definiteness effects such as the one illustrated in (7) constitute strong evidence against any mechanism that allows the internal argument to be assigned (structural) nominative Case in its base position. Thus, indefinite arguments in configurations such as the one in (7a) should be Case-licensed by some other means and Belletti proposes that they are assigned inherent partitive Case.

Notice that Belletti's criticism carries over to the *DbP* analysis of passives in (4)-(6) without any substantial modification and it is not hard to see why. Belletti's point remains valid because the relaxation of minimality under the Maximization Principle in *DbP* is a modern reincarnation of the *GB* additional machinery required to handle "inverted subjects" in object position. The problem raised by Belletti may in fact be even more intriguing within the *DbP* model. In *GB*, once the definite internal argument in (7b) could not be assigned nominative *in situ*, it could move to [Spec,IP] and be forever happy in this position. Crucially, the Spec-head configuration in *GB* played a big role in licensing many different kinds of relations and Case-assignment was one of them. Now, if Spec-head configurations are spurious relations associated with the EPP and have no privileged grammatical status, as assumed in the *DbP* model, it is not obvious that the definite argument in (7b) can have its Case-feature valued *even if it moves to [Spec,TP]*. At least, not if the probe must c-command its goal, as in *DbP*.

Further evidence against the long distance nominative Case assignment in configurations such as (5b) is provided by Raposo and Uriagereka (1990) (henceforth, *R&U*). They point out that the subject of a prepositional small clause can receive nominative *in situ*, whereas the subject of an adjectival small clause cannot, as illustrated by the Portuguese sentences in (8) (*R&U*'s (1b) and (1a)).

(8) a. Ontem em Beirute ficaram [os soldados sem armas]  
yesterday in Beirut became the soldiers without guns  
b. ?\*Ontem em Beirute ficaram [os soldados feridos]  
yesterday in Beirut became the soldiers wounded

As R&U show, the contrast above is maintained even if the whole small clause moves to the “inverted subject” position, which generally allows definite DPs to be assigned nominative there (see R&U’s (9a) and (8a)):

(9) a. Em Beirute ficaram ontem [esses soldados sem armas]  
in Beirut became yesterday these soldiers without guns  
b. ?\*Em Beirute ficaram ontem [esses soldados feridos]  
in Beirut became yesterday these soldiers wounded

R&U argue that the key for the contrasts in (8) and (9) is related to the agreement morphology involved in adjectival but not in prepositional small clauses. Assuming that only AP small clauses involve an AgrP projection, R&U propose a notion of government under which the AgrP projection would be a barrier for nominative assignment. Thus, (8b) and (9b) should be out by the Case Filter.

Notice that R&U's contrasts also constitute evidence against the relaxation of intervention effects under the Maximization Principle. Consider why. The agreement morphology found in AP small clauses involves gender and number, but not person. In other

words, these small clauses are associated with a defective  $\phi$ -set, to use  $DbP$  terms. Recall that according to the Maximization Principle, defective  $\phi$ -sets do not induce intervention effects (cf. assumption (iii) above). Thus, from the perspective of the  $DbP$  model, the fact that AP small clauses involve a defective  $\phi$ -set should be of no relevance whatsoever for minimality computations; they should be as transparent as PP small clauses. The fact that these two types of small clauses do not pattern alike therefore casts more doubts on the usefulness of the relaxation of minimality under the Maximization Principle.

To sum up, the long distance agreement relation allowed by the  $DbP$  system raises conceptual concerns in that it weakens the analysis of Case valuation as a reflex of  $\phi$ -agreement and, more troublesome, it requires that minimality computations be relativized with respect to “ $\phi$ -completeness”. However, this relativization overgenerates in that it allows an *in situ* internal argument to have its Case-feature valued as nominative and treats adjectival and PP small clauses as being equally transparent for external probing. In both cases, this yields wrong results, as seen in Italian and Portuguese.<sup>5</sup> Of course, we cannot simply say that T can never enter into a Case/Agreement relation with an internal argument, for otherwise we cannot account for standard passive sentences such as (3).

Thus, the puzzle before us is how to avoid throwing the baby with the bath water. How can we allow commerce between T and a moved internal argument, block it if the internal argument stays *in situ*, and refrain from reintroducing the Spec-head checking relation in addition to the assumed probe-goal relation? This is the topic for the following sections.

### 3. $\phi$ -agreement and Relativized Minimality

Putting aside the derivation of passives involving movement of the internal argument for the moment, let us examine nominative valuation of *in situ* arguments. For concreteness, let us assume that the EPP is optional in the null subject languages in question. The Italian and Portuguese data discussed in section 2 can be summarized as in (10) and (11).<sup>6</sup>

$$(10) \quad [_{TP} T_{\phi\text{-complete}} \dots [_{PpleP\text{-}\phi\text{-defective}} Pple [_{VP} V DP_{\phi}]]]$$

$$(11) \quad \begin{array}{l} \text{a.} \quad [_{TP} T_{\phi\text{-complete}} \dots [_{AgrP\text{-}\phi\text{-defective}} DP_{\phi} \dots]] \\ \qquad \qquad \qquad \times \\ \text{b.} \quad [_{TP} T_{\phi\text{-complete}} \dots [_{PP} DP_{\phi} \dots]] \\ \qquad \qquad \qquad \text{OK} \end{array}$$

(10) stands for the structure of the passive constructions in Italian and (11) for the small clauses in Portuguese. Assuming with Chomsky (2001:5) that the label of a complex syntactic object is the element that activates Agree, the label of PpleP and AgrP should

<sup>5</sup> The empirical problems raised by Belletti (1988) and R&U also apply to Hiraiwa's (2003) Multiple Agree approach, according to which Agree applies to all the matched goals at the same derivational point simultaneously.

<sup>6</sup> The analysis would remain essentially unaltered if we had a functional category analogous to a “defective” light verb in (11a) instead of an AgrP projection. For purposes of exposition, I will retain R&U original AgrP projection to refer to the projection dominating AP whose head bears a defective  $\phi$ -set and a Case-feature (see fn. 2).

encode the fact that their heads have a (defective)  $\phi$ -set, as represented in (10) and (11a). The contrast between (10) and (11a), on the one hand, and (11b), on the other, indicates that an intervening  $\phi$ -set is able to block Case valuation by T even if it is defective. In other words, the Maximization Principle should not be understood as having the effect of obliterating minimality.

Interestingly, it does not seem to be the case that we can adopt the null hypothesis concerning minimality either. That is, if we were to assume that an agreement relation involving a feature of type X should be blocked only by an intervening feature of the same type, we would incorrectly allow T and DP in (10) and (11a) to agree in person, given that the  $\phi$ -set of PpleP and AgrP does not include this feature; the DP would then have its Case-feature valued as nominative and we would not be able to account for Belletti's and R&U's contrasts reviewed in section 2. Thus, the facts summarized in (10) and (11) indicate that a different interpretation of minimality is required. The relevant factor seems to be the kind of relation (A- or A'-) a given feature is engaged in (the familiar relativized minimality in Rizzi's (1990) terms). In the case under discussion, an agreement relation involving  $\phi$ -features should be blocked by any intervening  $\phi$ -set (regardless of its specific feature composition), for  $\phi$ -sets are involved in the same type of relation, namely, an A-relation.

Suppose that this is on the right track. The first question we then have to address is what the relevant concept of intervention is. For our limited purposes, it suffices to assume a minimalist reinterpretation of Chomsky's (1964) A-over-A Condition: a probe P cannot enter into a given agreement relation with  $\alpha$ , if  $\alpha$  is embedded in a category that can establish the same type of agreement relation with P.<sup>7</sup> In the specific case of (10) and (11a), T cannot establish a  $\phi$ -agreement relation with DP because the DP is embedded within another category containing a  $\phi$ -set in its label. To use Hornstein's (2005) interpretation of the A-over-A Condition in terms of paths, the path from T to PpleP in (10) and to AgrP in (11a) is shorter than the path from T to DP. By contrast, there is no intervening projection between T and DP in (11b) whose label has a  $\phi$ -set. Hence, T can agree with DP in (11b), the DP can have its Case-valued as nominative, and more generally, no definiteness effects should arise with PP small clauses.

Thus far we have been concerned with how nominative valuation of *in situ* arguments can be allowed in PP small clauses and blocked in passives and adjectival small clauses. We now have to turn to the other side of the coin. If *in situ* arguments cannot be Case-valued by T and must be licensed by inherent Case, how can they determine agreement on T, as illustrated by the Portuguese passive in (12)?

(12) Foram encontradas umas cartas no chão.  
 were found-FEM-PL some letters on-the floor  
 'Some letters were found on the floor.'

Let us examine the relevant details of the derivation of (12) given in (13) (with English words for purposes of presentation).<sup>8</sup>

(13) a. [VP find [some letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?)]</sub>]

<sup>7</sup> On the role of A-over-A Condition in a minimalist system, see Chomsky (2005) and especially Hornstein (2005).

<sup>8</sup> In order to make the agreement relations visually clearer,  $\phi$ -sets will be represented attached to the relevant heads if they are probes, and to the label of the relevant maximal projections if they are goals.

- b.  $[\text{VP} \text{ find} [\text{some letters}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}]$
- c.  $[\text{PpleP} \text{ -en}_{[\text{G:2}]/[\text{N:2}]/[\text{Case:2}]} [\text{VP} \text{ find} [\text{some letters}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}]]$
- d.  $[\text{PpleP} \text{ -en}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:2}]} [\text{VP} \text{ find} [\text{some letters}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}]]$
- e.  $[\text{TP} \text{ T}_{[\text{P:2}]/[\text{N:2}]} [\text{VP} \text{ be} [\text{PpleP-}[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:2}]] \text{ -en} [\text{VP} \text{ find} [\text{some letters}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}]]]$
- f.  $[\text{TP} \text{ T}_{[\text{P:2}]/[\text{N:PL}]} [\text{VP} \text{ be} [\text{PpleP-}[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:NOM}]] \text{ -en} [\text{VP} \text{ find} [\text{some letters}]_{[\text{P:3}]/[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}]]]$

Upon merger in (13a), the verb may assign inherent partitive Case to the object. If it does, as in (13b), the object becomes unavailable for purposes of A-movement, but is still available for purposes of agreement. It can therefore value the gender and number features of the participial head after it enters the derivation, as shown in (13c)-(13d). Under the assumption that (structural) Case valuation can only occur under agreement with a  $\phi$ -set that contains a [-interpretable] person feature, agreement between *-en* and *some letters* in (13d) leaves the unvalued Case-feature untouched. Consider now the derivational step in (13e), after the finite T is introduced. The  $\phi$ -features of T probe into the structure and find matching valued features in the label of PpleP. Given the interpretation of relativized minimality explored here, this is sufficient to prevent T from probing beyond PpleP. In particular, the DP embedded within PpleP is not a suitable goal due to the A-over-A condition. By entering into an agreeing relation with PpleP, T has its number feature valued, and as a result, *-en* has its Case-feature specified as nominative, for T has a [-interpretable] person feature, as shown in (13f). The only unchecked feature in (13f) is the person feature of T, which can then get valued as third person by default.

In sum, the proposal here is that in a passive construction with an unmoved object, T does *not* agree with the object. Rather, the verbal agreement displayed is the result of T agreeing with the valued number feature of PpleP, plus default person specification. The general view that T is agreeing in number with the internal argument in sentences like (12) actually arises from the combination of three facts. First, only indefinite objects can remain *in situ* in passive constructions, which in Belletti's terms amounts to saying that only indefinites can be assigned partitive Case. Second, only third person elements can be indefinite; in particular, first and second person pronouns are inherently definite and cannot remain in the object position of passive constructions, as illustrated by the Portuguese sentences in (14) below.<sup>9</sup> Finally, third person is the crosslinguistically default morphological specification used for an unvalued person feature. Put together, these three facts conspire to give the illusion that T is agreeing with the internal argument in constructions such as (12).

- (14) a. \*Fui visto eu na festa.  
was-1SG seen I at-the party  
'I was seen at the party.'
- b. \*Foram vistos vocês na festa.  
were-PL seen you-PL at-the party  
'You were seen at the party.'

---

<sup>9</sup> If the first and second pronouns in (14) move to [Spec,TP], the sentences become grammatical and the verbs display person agreement with the pronouns. I address the question of how T can agree with the internal argument when movement takes place in section 4 below.

It is very illuminating to contrast (12) with (15) under this perspective.

(15) \*Foram consideradas [[algumas candidatas] [com aptidão para o cargo]]  
 were considered-FEM-PL some candidates with aptitude for the position  
 'Some candidates were considered to be apt for the position.'

(12) converges because the indefinite can satisfy the Case Filter in virtue of being  $\theta$ -marked and assigned partitive Case by the main verb. However, this possibility is not available for the indefinite in (15), for the matrix verb assigns a  $\theta$ -role to the PP small clause, and not to the indefinite. As Belletti (1988) notes, there is no analogue to ECM in the domain of  $\theta$ -assignment. So, the only other potential source of Case-licensing for the indefinite in the structure is the matrix T. As we saw in section 2, the PP small clause itself is transparent for  $\phi$ -agreement as its label is not associated with a  $\phi$ -set. By contrast, the intervening PpleP does have a defective  $\phi$ -set and agreement between the matrix T and the subject of the small clause induces a violation of minimality (an A-over-A violation), as sketched in (16) below. The derivation of (15) then crashes because the subject of the small clause cannot have its Case valued.

(16)  $[_{TP} T_\phi \dots [_{PpleP-\phi} -en [_{VP} \text{consider} [_{PP} DP_\phi \dots ]]]]$

The analysis proposed can also be extended to unaccusative constructions. As Belletti (1988) has extensively discussed, unaccusative constructions exhibit definiteness effects if the internal argument remains *in situ*. It is also well known that unaccusative verbs may display overt agreement morphology in gender and number with the internal argument in certain tense forms, as illustrated by the Italian sentences in (17).

(17) a. Maria è arrivata.  
 Maria is arrived-FEM.SG  
 'Maria arrived.'  
 b. Gianni è arrivato.  
 Gianni is arrived-MASC.SG  
 'Gianni arrived.'

Taking the overt morphology in (17) as evidence that unaccusative verbs are associated with a light verb with a defective  $\phi$ -set (see Chomsky 2000, 2001), consider the abstract unaccusative structure in (18), for instance.

(18)  $[_{TP} T_\phi [_{VP-\phi} V [_{VP} V \text{ indefinite}_\phi ]]]$

If the internal argument in (18) is indefinite, it may receive partitive Case from V, as shown in (19a) below. The light verb then agrees with the internal argument, valuing its gender and number features (cf. (19b-c)), and T enters into an agreement relation with vP, as shown in (19d). The unchecked person feature of T is finally valued as third person by default. In other words, this derivation is not substantially different from the derivation of passives with unmoved objects (cf. (13)).

(19) a.  $[\text{VP} \text{ V indefinite}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}$   
 b.  $[\text{VP} \text{ V}_{[\text{G:}?]/[\text{N:}?]/[\text{Case:}?]} [\text{VP} \text{ V indefinite}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}$   
 c.  $[\text{VP} \text{ V}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:}?]} [\text{VP} \text{ V indefinite}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}$   
 d.  $[\text{TP} \text{ T}_{[\text{P:}?]/[\text{N:PL}]} [\text{VP-}[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:NOM}]] \text{ V } [\text{VP} \text{ V indefinite}_{[\text{G:FEM}]/[\text{N:PL}]/[\text{Case:PART}]}$

By contrast, if the internal argument is definite, as sketched in (20) below, partitive Case is not available and the  $\phi$ -set of the light verb will prevent T from reaching the internal argument, unless the internal argument moves, as will be discussed in the next section. Again this mirrors the derivation of passives with definite internal arguments (cf. (14)).

(20)  $[\text{TP} \text{ T}_{\phi} [\text{VP-}\phi \text{ V } [\text{VP} \text{ V definite}_{\phi}]]]$

#### 4. EPP as the Extended Peeking Principle

The account of the ungrammaticality of (14), (15)/(16), and (20) proposed in the previous section may actually shed some light on the role of labels and the EPP-feature during the computation. Labels arguably reduce computational complexity by allowing the search by a probe to be minimized.<sup>10</sup> Under the proposal entertained here, as soon as a probe finds a goal whose label has features matching its own features, the search is interrupted, agreement is computed, and no further probing beyond the inspected goal takes place. In other words, the decision of whether or not two elements can enter into an agreement relation is determined within a very narrow computational window. Data such as (14) and (15) suggest that if an agreement relation with the closest goal does not lead to convergence either because the goal has become inactive after having previously valued all of its features or because there are still unvalued features on the probe or on more remote targets, no further search down the tree is allowed. And this is so even if there are more promising goals down there, as was the case in (14) and (15).

However, if this were the whole story, an external argument should never be able to have its Case-feature valued. Consider why by examining the structure in (21), after T merges with vP.

(21)  $[\text{TP} \text{ T } [\text{vP} \text{ DP}_1 [\text{v} \text{ V } [\text{VP} \text{ V DP}_2]]]]$

The “transitive” light verb in (21), which is associated with a complete  $\phi$ -set, enters into an agreement relation with DP<sub>2</sub>, valuing its Case (as accusative) and having its own  $\phi$ -features valued, as well. According to the suggestion above, as soon as T probes the structure and finds a  $\phi$ -set in the label of vP, the search should be stopped and the system should inspect if agreement between T and vP can take place. This is not the case in (21), for all of the  $\phi$ -features of the light verb have already been valued and, therefore, vP has become inactive for further  $\phi$ -agreement computations. The derivation should then crash because DP<sub>1</sub> would not have its Case-feature valued.

Now suppose that what the EPP-feature actually does is provide a given probe with an extra stretch in its search space. That being so, if T in (21) has an EPP-feature, its  $\phi$ -set

<sup>10</sup> See Hornstein, Nunes, and Grohmann (2005:chap. 6) for relevant discussion.

will be allowed to look beyond the vP projection, thereby being able to enter into an agreement relation with the external argument and attract it to its Spec. Under this interpretation, the EPP can be viewed as a design feature introduced into the computational system in order to allow some restricted communication among syntactic domains. As a metaphor to illustrate this point, suppose that probes usually use low beams to find their goals, but an EPP-feature is like a high beam. If so, a probe without an EPP-feature will stop its search after finding the first relevant goal, i.e., the first category whose label has features matching its unvalued features. By contrast, a high-beam probe with an EPP-feature illuminates a larger domain, going beyond the first detected goal. In this sense, we may now take *EPP* as an abbreviation for *Extended Peeking Principle*.

It is clear that the high beam of EPP should not be too powerful, though. Otherwise, it would permit unbounded communication among syntactic domains, thereby bleeding the drive to reduce computational complexity. For instance, although it is a desired property that the EPP-feature allows T to probe into vP in (21) and reach the external argument, a T with a high beam should not be able to probe into the embedded clause in (22) below and reach *John*, even if a checking relation could be successfully established. In other words, if the extra search space allowed by an EPP feature is too broad, there will be overgeneration such as the derivation of the sentence in (23) from the structure in (22).<sup>11</sup>

(22) [T [<sub>vP</sub> v [seems [that [<sub>TP</sub> it was told John [that he will be hired]]]]]]]

(23) \*John seems that it was told that he will be hired.

The question that then arises is how far down the structure a head endowed with a high beam EPP feature can probe as it “skips” the closest goal and how this extended peeking can be determined in a nonstipulative manner. I propose that the natural barrier for the extra stretch beyond the closest goal provided by the EPP is the next closest projection whose label matches the probe but is inert for further agreeing relations. The intuition behind this proposal is similar to one that anchors Chomsky's (2000, 2001) notion of *phase*. That is, if a given projection is inert for agreement relations, the computational system should treat it as an atomic syntactic object, for its head has already entered into all possible agreement relations in previous stages of the derivation.

Assuming that something along these lines is correct, let us reconsider the structures in (21) and (22). If empowered by the EPP, the T head in (21) can probe beyond vP, thus being able to agree with DP<sub>1</sub> and attract it to its Spec. Crucially, there is no intervening inert projection that has  $\phi$ -features in its label. By contrast, the high beam of the EPP feature of the matrix T in (22) allows it to probe beyond the defective vP but no further than the embedded TP, which is the next closest inert projection with  $\phi$ -features in its label. Thus, T cannot reach *John* and attract it to its Spec and the derivation of the sentence in (23) from the structure in (22) is correctly ruled out.

This approach also accounts for why there are no existential constructions like (24) below in English, where the EPP is checked by an expletive and the external argument remains in [Spec, vP].<sup>12</sup> If the expletive checks the EPP-feature of T, it will not be able to probe beyond vP and the unvalued Case-feature of the external argument will violate the

<sup>11</sup> See e.g. Chomsky (1995, 2000) and Nunes (2000, 2004) for discussion of structures such as (22).

<sup>12</sup> See Lasnik (1999:84) for relevant discussion.

Case Filter. If T probes into vP and triggers movement, merger of the expletive will not be licensed.<sup>13</sup>

(24) a. \*There a man kissed Mary  
b. \*There a man danced

From this perspective, the derivation of a standard passive with movement of the internal argument such as the Portuguese sentence in (25) converges thanks to the EPP feature of T.<sup>14</sup> Consider the relevant details represented in (26) (with English words).

(25) As cartas foram encontradas no chão.  
the letters were found-FEM-PL on-the floor  
'The letters were found on the floor.'

(26) a. [PpleP -en<sub>[G:?]/[N:?]/[Case:?]</sub> [VP find [the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?]</sub>]]  
b. [PpleP -en<sub>[G:FEM]/[N:PL]/[Case:?]</sub> [VP find [the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?]</sub>]]  
c. [TP T<sub>[P:?]/[N:?]/EPP</sub> [VP be [PpleP-[G:FEM]/[N:PL]/[Case:?] -en [VP find  
[the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?]</sub>]]]]  
d. [TP T<sub>[P:?]/[N:PL]/EPP</sub> [VP be [PpleP-[G:FEM]/[N:PL]/[Case:NOM] -en [VP find  
[the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?]</sub>]]]]  
e. [TP T<sub>[P:3]/[N:PL]/EPP</sub> [VP be [PpleP-[G:FEM]/[N:PL]/[Case:NOM] -en [VP find  
[the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:NOM]</sub>]]]]  
f. [TP [the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:NOM]</sub> [T<sub>[P:3]/[N:PL]/EPP</sub> [VP be  
[PpleP-[G:FEM]/[N:PL]/[Case:NOM] -en [VP find t]]]]]]

After entering the derivation in (26a), *-en* probes its domain and values its gender and number features, as shown in (26b). T then enters the derivation in (26c) and its high beam EPP feature extends its search domain beyond the closest goal (PpleP) as far the closest inactive goal. Thus, the extended domain of T in (26c) includes PpleP, as well as the internal argument, for there is no inactive projection with a  $\phi$ -set in its label that intervenes between PpleP and *the letters*. Once established the extended domain of T, it can agree with either PpleP or *the letters*. If it agrees with the latter, it will become inactive and the derivation should crash because PpleP won't have its Case-feature valued. By contrast, if T agrees with PpleP first, as shown in (26d), it remains active and is able to enter into an additional agreement with the internal argument, valuing all unvalued features, as shown in (26e). Movement of the internal argument to check the EPP feature of T finally yields (26f).<sup>15</sup>

<sup>13</sup> Similarly, this analysis accounts for the fact that transitive expletive constructions require that the subject moves out of the vP (see Jonas and Bobaljik (1996) for relevant discussion). If an expletive is going to check the EPP feature of T, it must be the case that some other head endowed with an EPP-feature occurring between T and vP triggers movement of the external argument out of vP. Or, alternatively, if the external argument checks the EPP feature of T, the must be an additional projection above TP with an EPP feature to be checked by the expletive.

<sup>14</sup> Similar considerations apply to the derivation of unaccusative constructions involving movement of the internal argument. Due to space limitations, I will focus on the derivation of passives.

<sup>15</sup> The agreement relations remain unaltered if the participial head also has an EPP feature, triggering movement of the internal argument, as illustrated in (i) below. In order for (i) to converge, T has to agree with the participial head before entering into an agreement relation with the internal argument.

(i) [TP T<sub>[P:?]/[N:?]/EPP</sub> [VP be [PpleP [the letters]<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?</sub> [Pple<sup>e</sup> -en<sub>[G:FEM]/[N:PL]/[Case:?]</sub> EPP [VP find t]]]]]]

For the sake of completeness, let us now get back to R&U's Portuguese data, repeated below with the crucial step of their derivations represented:

- (27) a. Ontem em Beirute ficaram [os soldados sem armas]  
yesterday in Beirut became the soldiers without guns  
[<sub>TP</sub> <sub>T<sub>φ</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>PP</sub> [the soldiers]<sub>φ</sub> [<sub>P</sub> without guns]]]]]
- (28) a. Ontem em Beirute os soldados ficaram [*t* sem armas]  
yesterday in Beirut the soldiers became without guns  
[<sub>TP</sub> <sub>T<sub>φ/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>PP</sub> [the soldiers]<sub>φ</sub> [<sub>P</sub> without guns]]]]]
- (29) a. ?\*Ontem em Beirute ficaram [os soldados feridos]  
yesterday in Beirut became the soldiers wounded-MASC-PL  
b. [<sub>TP</sub> <sub>T<sub>φ</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP-φ</sub> [the soldiers]<sub>φ</sub> wounded-MASC-PL]]]]
- (30) a. Ontem em Beirute os soldados ficaram [*t* feridos]  
yesterday in Beirut the soldiers became wounded-MASC-PL  
b. [<sub>TP</sub> <sub>T<sub>φ/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP-φ</sub> [the soldiers]<sub>φ</sub> wounded-MASC-PL]]]]

In (27a) and (28a), T can value the Case of *the soldiers* regardless of whether or not it has an EPP-feature, because *the soldiers* is the first matching goal that it finds, as illustrated in (27b) and (28b); hence, Case valuation can proceed without any problems. In (29a), on the other hand, the first category whose label matches that of T is AgrP, as shown in (29b), and given that T does not have an EPP feature, it is not allowed to probe beyond AgrP. The derivation then crashes because *the soldiers* violates the Case Filter. The problem with (29a) is remedied in (30a): given that T has an EPP feature, as shown in (30b), its search domain is extended and includes the small clause subject, in addition to AgrP. Similar to what we saw earlier, if T agrees with the small clause subject, it will become inactive and unable to value the Case-feature of AgrP; by contrast, if it agrees with AgrP first, it will remain active and, therefore, will be able to value the Case of the small clause subject, allowing the derivation to converge after the EPP of T is checked.<sup>16</sup>

Recall that R&U also point out that contrast between (27a) and (29a) is maintained even if the small clauses appear in the “inverted subject” position, as shown in (9), repeated below in (31). From the perspective of the approach explored here, this is what should be

---

<sup>16</sup> If the Agr head in (30b) also has an EPP feature, feature valuation will proceed along the lines of the derivation of passives when the participial head has an EPP-feature (see fn. 15). That is, T agrees with the head of AgrP before agreeing with the small clause subject, as illustrated in (i).

- (i)
  - a. [<sub>TP</sub> <sub>T<sub>[P:2]/[N:2]/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP</sub> [the soldiers]<sub>[P:3]/[G:MASC]/[N:PL]/[Case:2]</sub> [<sub>Agr' Agr<sub>[G:MASC]/[N:PL]/[Case:2]/EPP</sub> ...]]]]]</sub>
  - b. [<sub>TP</sub> <sub>T<sub>[P:2]/[N:PL]/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP</sub> [the soldiers]<sub>[P:3]/[G:MASC]/[N:PL]/[Case:2]</sub> [<sub>Agr' Agr<sub>[G:MASC]/[N:PL]/[Case:NOM]/EPP</sub> ...]]]]]</sub>
  - c. [<sub>TP</sub> <sub>T<sub>[P:3]/[N:PL]/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP</sub> [the soldiers]<sub>[P:3]/[G:MASC]/[N:PL]/[Case:NOM]</sub> [<sub>Agr' Agr<sub>[G:MASC]/[N:PL]/[Case:NOM]/EPP</sub> ...]]]]]</sub>
  - d. [<sub>TP</sub> [the soldiers]<sub>[P:3]/[G:MASC]/[N:PL]/[Case:NOM]</sub> [<sub>T'</sub> <sub>T<sub>[P:3]/[N:PL]/EPP</sub></sub> [<sub>VP</sub> <sub>V</sub> [<sub>AgrP</sub> <sub>t</sub> [<sub>Agr' Agr<sub>[G:MASC]/[N:PL]/[Case:NOM]/EPP</sub> ...]]]]]]]</sub>

expected, for AgrP induces minimality effects for agreement between T and the DP it contains, but PP doesn't.

(31) a. Em Beirute ficaram ontem [esses soldados sem armas]  
           in Beirut became yesterday these soldiers without guns  
   b. ?\*Em Beirute ficaram ontem [esses soldados feridos]  
           in Beirut became yesterday these soldiers wounded

A revealing set of data not examined by R&U involves small clauses in the complement position of a passivized verb, as illustrated in (32) and (33).<sup>17</sup>

(32) a. \*Foram consideradas [[estas candidatas] [com aptidão para o cargo]]  
           were considered-FEM-PL these candidates with aptitude for the position  
   b. \*Foram consideradas [[estas candidatas] [aptas para o cargo]]  
           were considered-FEM-PL these candidates apt-FEM-PL for the position  
           'These candidates were considered to be apt for the position.'

(33) a. [estas candidatas] foram consideradas [t [com aptidão para o cargo]]  
           these candidates were considered-FEM-PL with aptitude for the position  
   b. [estas candidatas] foram consideradas [t [aptas para o cargo]]  
           these candidates were considered-FEM-PL apt-FEM-PL for the position  
           'These candidates were considered to be apt for the position.'

This time prepositional and adjectival small clauses pattern alike regardless of whether or not the subject of the small clause moves to [Spec,TP]. Let us consider why by examining the relevant steps that underlie the derivation of these sentences, starting with the ones in (32).

As illustrated in (34) below, the first projection containing  $\phi$ -features in its label that T encounters is PpleP. T can then enter into an agreeing relation with PpleP but cannot probe further down the structure, causing the derivation to crash because the subject of the small clause will not have its Case valued. In the derivation of (32b), shown in (34b), there is an additional problem, for AgrP, whose head is also associated with a defective  $\phi$ -set and a Case-feature (see fn. 2), cannot have its Case valued either.<sup>18</sup>

(34) a.  $[\text{TP } T_\phi [\text{PpleP-}\phi/\text{Case} \text{ -en} [\text{VP } V [\text{PP } DP_{\phi/\text{Case}} \dots]]]]$   
            $\underbrace{\quad\quad\quad}_{\times}$

      b.  $[\text{TP } T_\phi [\text{PpleP-}\phi/\text{Case} \text{ -en} [\text{VP } V [\text{AgrP-}\phi/\text{Case} \text{ DP}_{\phi/\text{Case}} \dots]]]]$   
            $\underbrace{\quad\quad\quad}_{\times}$

Take now the derivation of (33a), given in (35) below. Given that T in (35a) is endowed with the high beam EPP feature, it can probe beyond PpleP after the step depicted in (35b), enter into an agreement relation with the subject of the prepositional small clause,

<sup>17</sup> See the discussion of (15) in section 3.

<sup>18</sup> The unacceptability of the sentences in (32) is not problematic for R&U if they assume that passive verbs are dominated by an intermediate functional head that could govern the subject of the small clause "by fewer steps" than T. In fact, the proposal developed in this section can be viewed just as a simplification of R&U original proposal made available by the current framework.

and attract it to its Spec, as shown in (35c). Once all uninterpretable features get valued, the derivation converges, as desired.

(35) a.  $[\text{TP } T_{[\text{P:?:}/[\text{N:?:}/\text{EPP} [\text{PpleP-[G:FEM]/[N:PL]/[Case:?:]} \text{-en} [\text{VP } V [\text{PP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]]]$   
b.  $[\text{TP } T_{[\text{P:?:}]} \text{[N:PL]/EPP} [\text{PpleP-[G:FEM]/[N:PL]/[Case:NOM]} \text{-en} [\text{VP } V [\text{PP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]]]$   
c.  $[\text{TP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:NOM}]} [\text{T } T_{[\text{P:3}/[\text{N:PL}/\text{EPP} [\text{PpleP-[G:FEM]/[N:PL}/[\text{Case:NOM} \text{-en} [\text{VP } V [\text{PP } t \dots]]]]]]]$

Let us finally examine the details of the derivation of (33b), which is more interesting in that there is an additional projection with  $\phi$ -features in its label intervening between T and the subject of the small clause, namely, AgrP. After Agr enters the derivation in (36a), it agrees with the subject of the adjectival small clause, valuing its gender and number features, as shown in (36b).<sup>19</sup>

(36) a.  $[\text{AgrP } \text{Agr}_{[\text{G:?:}/[\text{N:?:}/[\text{Case:?:}]} [\text{AP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]$   
b.  $[\text{AgrP } \text{Agr}_{[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:}]} [\text{AP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]$

When the participial head is introduced in (37a) below, the first projection with  $\phi$ -features it finds is AgrP, which is still active for the computation as its Case feature is still unvalued. *-en* then agrees with AgrP, valuing its gender and number features, as shown in (37b). Crucially, the gender and number features of AgrP – although uninterpretable – will only be deleted when the structure is spelled out, at the strong phase level (see Chomsky 2000:131, 2001:18, 2004:116).

(37) a.  $[\text{PpleP } \text{-en}_{[\text{G:?:}/[\text{N:?:}/[\text{Case:?:}]} [\text{VP } V [\text{AgrP-[G:FEM]/[N:PL}/[\text{Case:?:} \text{Agr} [\text{AP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]]]$   
b.  $[\text{PpleP } \text{-en}_{[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:}]} [\text{VP } V [\text{AgrP-[G:FEM]/[N:PL}/[\text{Case:?:} \text{Agr} [\text{AP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]]]$

After the computation reaches the stage in (37b), T is then merged, as shown in (38a) below. The EPP feature of T extends its search domain beyond PpleP, its closest goal. AgrP could be a potential barrier to delimit the search domain of T, as its label carries  $\phi$ -features. However, according to the proposal we are entertaining here, AgrP in (38a) does not count as an actual barrier for a probe empowered with an EPP feature, because it is still syntactically active as its Case feature has not been valued. Hence, PpleP, AgrP, and DP in (38a) all fall within the extended probe domain of T. As before, if T agrees with DP first, the derivation crashes because no further agreement is licensed. T must then agree with PpleP and AgrP before agreeing with DP.<sup>20</sup> This is illustrated in (38b-d).<sup>21</sup>

(38) a.  $[\text{TP } T_{[\text{P:?:}/[\text{N:?:}/\text{EPP} \dots [\text{PpleP } \text{-en}_{[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:}]} [\text{VP } V [\text{AgrP-[G:FEM]/[N:PL}/[\text{Case:?:} \text{Agr} [\text{AP } DP_{[\text{P:3}/[\text{G:FEM}/[\text{N:PL}/[\text{Case:?:} \dots]]]]]]]$

<sup>19</sup> If Agr has an EPP feature, the small clause subject should move to its Spec. Since nothing depends on this movement (see fn. 16), I leave it aside for purposes of presentation.

<sup>20</sup> The derivation also converges if T agrees with AgrP before agreeing with PpleP and DP.

<sup>21</sup> See Hornstein, Martins, and Nunes (2006b) for relevant discussion and an alternative account of Case valuation in structures analogous to (38a).

[AP DP<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?) ...]]]]]</sub>

b. [TP T<sub>[P:?)</sub> [N:PL]/EPP ... [P<sub>pleP</sub> -en<sub>[G:FEM]/[N:PL]/[Case:NOM]</sub> [VP V<sub>[AgrP-[G:FEM]/[N:PL]/[Case:?)</sub> Agr<sub>[AP DP<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?) ...]]]]]]]</sub></sub>

c. [TP T<sub>[P:?)</sub> [N:PL]/EPP ... [P<sub>pleP</sub> -en<sub>[G:FEM]/[N:PL]/[Case:NOM]</sub> [VP V<sub>[AgrP-[G:FEM]/[N:PL]/[Case:NOM]</sub> Agr<sub>[AP DP<sub>[P:3]/[G:FEM]/[N:PL]/[Case:?) ...]]]]]]]</sub></sub>

d. [TP T<sub>[P:3]</sub> [N:PL]/EPP ... [P<sub>pleP</sub> -en<sub>[G:FEM]/[N:PL]/[Case:NOM]</sub> [VP V<sub>[AgrP-[G:FEM]/[N:PL]/[Case:NOM]</sub> Agr<sub>[AP DP<sub>[P:3]/[G:FEM]/[N:PL]/[Case:NOM]</sub> ...]]]]]]]</sub>

e. [TP DP<sub>[P:3]/[G:FEM]/[N:PL]/[Case:NOM]</sub> [T<sub>[P:3]/[N:PL]</sub> EPP<sub>[P<sub>pleP</sub> -en<sub>[G:FEM]/[N:PL]/[Case:NOM]</sub> [VP V<sub>[AgrP-[G:FEM]/[N:PL]/[Case:NOM]</sub> Agr<sub>[AP t ...]]]]]]]]]</sub></sub>

To sum up, I have argued that the EPP should be understood as an “Extended Peeking Principle” in that it allows a given probe to stretch its search domain, making it possible for Case valuation to take place across potential barriers (projections with  $\phi$ -features in their labels). It was also shown that such domain extension is sufficiently restricted in that it does not lead to overgeneration.

## 5. Concluding Remarks

Based on Belletti's (1988) and Raposo and Uriagereka's (1990) empirical arguments against long distance nominative Case assignment, we have reached the conclusion that long distance agreement cannot be maintained as proposed in Chomsky's (2000, 2001) Agree-based framework. As an alternative, I proposed that any  $\phi$ -set – regardless of its feature composition – should induce minimality effects for a  $\phi$ -agreement relation across it. Although this proposal correctly captures the empirical arguments raised by Belletti and R&U, it apparently undergenerates in that it incorrectly rules out long distance agreement when overt movement is involved. Rather than a problem, I have argued that this in fact provides a rationale for the EPP in the system: the EPP is an empowering feature for purposes of  $\phi$ -probing which enlarges the search domain of the probe it is associated with, allowing some restricted communication across  $\phi$ -domains. This conception of the EPP as the Extended Peeking Principle thus explains why true long distance Case assignment is only possible when overt movement (hence the EPP) is involved.

## References

BELLETTI, Adriana (1998): The Case of unaccusatives. *Linguistic Inquiry* 19:1-34.

BOBALJIK, Jonathan and Dianne JONAS (1996): Subject positions and the roles of TP. *Linguistic Inquiry* 27:195-236.

BURZIO, Luigi (1986): *Italian Syntax*. Dordrecht: Reidel.

CHOMSKY, Noam (1964): *Current Issues in Linguistic Theory*. Mouton: The Hague.

CHOMSKY, Noam (1986): *Barriers*. Cambridge, MA: MIT Press.

CHOMSKY, Noam (1993): A minimalist program for linguistic theory. K. HALE and S. KEYSER (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*. Cambridge, MA: MIT Press, 1-52.

CHOMSKY, Noam (1995): *The Minimalist Program*. Cambridge, MA: MIT Press.

CHOMSKY, Noam (2000): Minimalist inquiries: the framework. R. MARTIN, D. MICHAELS and J. URIAGEREKA (eds.), *Step by step: Essays on Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, MA: MIT Press, 81-155.

CHOMSKY, Noam (2001): Derivation by phase. M. KENSTOWICZ (ed.), *Ken Hale: A Life in Language*. Cambridge, MA: The MIT Press, 1-52.

CHOMSKY, Noam (2004): Beyond explanatory adequacy. A. BELLETTI (ed.), *Structures and Beyond – The Cartography of Syntactic Structure*, Vol. 3. Oxford: Oxford University Press.

CHOMSKY, Noam (2005): *On Phases*. Cambridge, MA: MIT Press.

HIRAIWA, Ken (2003): Multiple Agree and the Defective Intervention Constraint in Japanese. *MIT Working Papers in Linguistics* 40:67-80.

HORNSTEIN, Norbert (2005): Deriving c-command. Ms., University of Maryland.

HORNSTEIN, Norbert, Ana Maria MARTINS and Jairo NUNES (2006a): Infinitival complements of perception and causative verbs: a case study on agreement and intervention effects in English and European Portuguese. *University of Maryland Working Papers in Linguistics* 14:81-110. (<http://ling.umd.edu/publications/volume14/>)

HORNSTEIN, Norbert, Ana Maria MARTINS and Jairo NUNES (2006b): Perception and causative constructions in English and European Portuguese:  $\phi$ -feature agreement and the distribution of bare and prepositional infinitives. Ms., University of Maryland, Universidade de Lisboa and Universidade de São Paulo.

HORNSTEIN, Norbert, Jairo NUNES and Kleanthes GROHMANN (2005): *Understanding Minimalism*. Cambridge, MA: MIT Press..

KAYNE, Richard (1989): Facets of Romance past participle agreement. P. BENINCÀ (ed.), *Dialect Variation and the Theory of Grammar*. Dordrecht: Foris, 85-104.

LASNIK, Howard (1999): *Minimalist Analysis*. Oxford: Blackwell.

NUNES, Jairo (2000): Erasing erasure. *D.E.L.T.A.* 16.2:415-429.

NUNES, Jairo. (2004): *Linearization of Chains and Sideward Movement*. Cambridge, MA: MIT Press.

RAPOSO, Eduardo and Juan URIAGEREKA (1990): Long-distance Case assignment. *Linguistic Inquiry* 21, 505-537.

RIZZI, Luigi (1990): *Relativized Minimality*. Cambridge, MA: MIT Press.

Jairo Nunes  
 <jmnunes@usp.br>