Is There Any Defective Intervention in the Syntax?

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1. Introduction

The phenomenon of defective intervention is a core topic of investigation in the recent minimalist literature, starting with Chomsky (2000). Defective intervention describes the situation when a probe and a goal Agree relation is blocked by a closer matching goal that is inactive in the derivation due to the fact that its features have already been valued. The general explanation for defective intervention follows from a Minimal Link Condition (Chomsky 1995: 311) or a Relativized Minimality (RM) (Rizzi 1990, 2001) violation: an element α may enter into a relation with an element β iff there is no γ that meets the requirement(s) of α such that α c-commands γ and γ c-commands β.


(1) a. *Gianni sembra a Piero fare il suo dovere.  
   ‘Gianni seems to Piero to do his duty.’ (McGinnis 1998:93)

b. *O alunos parecem ao professor estar exaustos.  
   ‘The students seem to the teacher to be exhausted.’

There is, however, another scenario where defective intervention can be obviated in language where the experiencers can used as clitics or/and clitic doubled DPs (see e.g. McGinnis 1998, Torrego 2002, Anagnostopoulou 2003, Marchis Moreno & Petersen to appear).

(2) a. Gianni gli sembra essere stanco.  
   ‘Gianni seems to him to be ill.’

b. O aluno me parece estar exausto.  
   ‘The student seems to me to be exhausted.’

In the next section, we discuss how Bruening (2014) casts doubt on the grammatical status of defective invention, which he considers to be a disguised form of linear intervention on a par with the intervention of adjuncts.

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1 A second scenario is like the one in Icelandic where defective intervention might trigger default agreement (cf. Chomsky 2000 and Preminger 2008):

(i) það virðist/virðast einhverjum manni [hestarnir vera seinir]  
   EXPL seems/seem some man-DAT the-horses-NOM be slow
   ‘It seems to some men that the horses are slow.’ (Holmberg & Hróarsdóttir 2003: (2))
2. Counter-evidence to Defective Intervention: Bruening (2014)

Bruening (2014) defends the idea that only ‘simple’ intervention, e.g., intervention of an active goal, exists in the grammar, and that defective intervention does not carry a theoretical status as a phenomenon, but it can be reduced to linear placement constraints. Bruening shows that adjunct phrases in (3), which are argued not to interfere with A-movement, act just like the experiencer PPs in (1), causing unacceptability in the same position:

(3) a.*Jean a semblé [au cours de la réunion] avoir du talent.
John has seemed during the meeting have-INF talent.
‘John seemed during the meeting to have talent.’

b.??Gianni sembra in alcune occasione fare il suo dovere.
Gianni seems on some occasions do-INF the his duty.
‘Gianni seems on some occasions to do his duty.’ (Bruening 2014: 714)

Bruening (2014) claims that the unacceptability of these examples is due to the linear position of adjuncts. The author argues that adjuncts of all types are banned in the position between matrix V and the subordinate infinitive (in linear order), and although he suggests some explanations for that ban, none of them are followed through as an analysis. Below we review his data and provide an account for them.

2.1. Towards an explanation: linear vs. syntactic invention

We show that the phrases (adverbials and experiencers) provided by Bruening (2012) can structurally attach at different positions in raising constructions, hence triggering different interpretations and different degrees of acceptability. In the raising structures discussed here, an experiencer is part of the matrix VP (either introduced by an applicative head or in a PP) (cf. Anagnostopoulou 2005, Diaconescu & Rivero 2005, Marchis & Alexiadou 2013), while an adverbial phrase may be merged as the modifier either of the embedded or the matrix verb. Moreover, different types of adverbs have specific placement constraints.

With these ingredients, we argue that there is no reason to believe that the unacceptability of (3) above with phrasal adverbials and the unacceptability of (1) with experiencers are related: they result from different constraints that can be independently accounted for.

Adjuncts like in those conditions presented in Bruening (2014) are also marginal in the same position in Romanian and Brazilian Portuguese.

(4) a. ?Maria pare în aceste condiții să nu mai vrea să plece în concediu. Mary seems in these conditions subj not want go-3pl on vacation.

b. ??Maria parece nessas condições não poder sair mais de férias.
‘Mary seems in those conditions not can-INF go-INF more on vacation’

However, not all adverbial phrases are illicit in the position between the raising verb and the infinitive/subjunctive. In contrast to the adverbial phrases provided by Bruening (2014), some modal and temporal adverbials such as today, decisively, now, often, never a.o. in (5) and (6) are quite acceptable in the position argued by Bruening to be illicit, i.e. between the raising verb and the embedded clause:

2 Bruening 2014 also shows that adverbials phrases (ii) pose similar intervention effects like experiencers (i) in tough-movement. We will not comment on those, as that is not the topic of this paper. We believe tough-movement and raising involve different operations, and therefore they cannot be reduced to the same analysis.

(i) a. It is important (to Mary) to avoid cholesterol.
b. Cholesterol is important (*to Mary) to avoid.
Peter seemed decisively not want-3sg-INF more come to-the party 'John seemed not to want to come to the party anymore for sure.'

'John seemed not to want to come to the party anymore for sure.'

We assume that the contrast between (4) and (5)-(6) is due to several reasons: First, following Haider (2004), we argue that Bruening’s adverbia sentences in (3) and (4) are embedded inside the VP belonging either to the matrix or to the embedded clauses and they cannot appear in the position between the matrix verb and the embedded clause/infinitive due to placement restrictions shown in Cinque (1999) and Ledgeway & Lombardi (2005). Specifically, phrasal adverbials cannot move to the position between the matrix verb and the embedded domain (cf. (4)) because they cannot be easily preposed above the object infinitive clause (in the case they modify the matrix verb), nor can they move to the periphery of the embedded defective infinitive domain (in case they modify the embedded verb).

Interestingly, non-phrasal adverbs like in (5) and (6) that unambiguously modify the matrix verb are acceptable in the same position that Bruening’s phrasal adverbials are not. Therefore, we assume that the positions of these different adjuncts play a role in the acceptability of these sentences. Moreover, the kind of adverb will restrict the positions in which they may appear.

We will turn to the analysis of adverb placement in the next section. Before that, we present another piece of evidence against Bruening’s analysis. Brazilian Portuguese allows hyper-raising, i.e., raising from a finite clause, which has all characteristics of an A-movement (Martins & Nunes 2005, 2009). Defective intervention is equally observed in both raising and hyper-raising (cf. (7) and (8)).

Notice, now, that the very same adverbials used by Bruening (2014) affect hyper-raising and raising differently: raising over adverbial phrases is marginal (cf. (9)) while hyper-raising over the same adverbial phrases is perfectly acceptable (cf. (10)).

Maria seems in-these conditions not want-INF leave-INF more of vacations ‘It seems that Mary doesn’t want to go on vacations anymore in these conditions.’

Os senadores parecem em certas ocasiões fazerem as piores escolha para a população. ‘These senators seem to make the worst choices for the population on some occasions.’

3 We thank Ion Giurgea for drawing us attention to the different adjoined positions of adverbs in Romanian.
(10) a. Maria parece nessas condições que não vai sair mais de férias.
   Maria seem in-these conditions that not will leave more in vacations
   ‘It seems that Mary will not be going on vacations anymore in these conditions.’
b. Os senadores parecem em certas ocasiões que fazem as piores escolhas para a
   população.
   The senators seem in certain occasions that make the worst choices to the population
   ‘The senators seem to make the worst choices for the population on some occasions.’

The pattern above cannot be explained under Bruening’s assumptions: if defective intervention does not exist and it can be reduced to a linear constraint, why do we find acceptability with adverbial placement in (10), and unacceptability with experiencers located in the same position in (8) in hyper-raising?

In the next section, we will show that the restrictions on adverb placement across languages can explain why some adverbs cannot appear between the raising verb and its embedded complement. Our analysis will also explain the contrast between (9) and (10), i.e., why indicative and infinitive complements behave differently regarding adverb placement. We will look at the behavior of adverbs in monoclausal structures and then apply our findings to biclausal structures in section 2.3, where we discuss both possible positions of the adverbs, i.e, adverbs may be contained in the embedded or matrix clause.

2.2. Two kinds of adverbs

Haider’s (2004) analysis of preverbal and postverbal adverbs can explain why high adverbs in Cinque’s (1999) terminology – or ‘simple’ adverbs, such as easily or yesterday, are allowed between the raising verb and the embedded domain, while Bruening’s phrasal adverbials, such as without any difficulties, are illicit in that same position. See the contrast in English below:

(11) He will easily/*without any difficulties find an appropriate solution

In brief, Haider (2004) shows that some adverbials are adjoined or embedded, depending on the relation to the head of the containing phrase. Only adverbs that are adjoined precede the head of the containing phrase such as simple adverbs like easily or soon in (11) while the embedded adverbs like without any difficulties follow the head of the phrase in which it is contained. He derives this analysis of adverbs from a general projection restriction, namely that adjunction is possible only to the left, but not to the right (cf. (12a)). Consequently, post-head adverbials are embedded, i.e., they are the most deeply embedded element in V projection consisting of VP-shells (cf. (12b)).

(12) a. [John] [XP often [XP ... [VP t2 talks1 [VP t1 to Mary ]
   b. [TP Ana2 [VP t2 saw [VP Peter [V' t1 [at the meeting]]]

This analysis is compatible with our empirical data that show a distinction between simple adverbs such as manner and time adverbs, and phrasal adverbials that, according to Bruening (2014), intervene on a par with experiencer DPs. However, their different behavior is even more visible in languages like English where adverbs can occur either preverbally or postverbally (for the differences based on edge effects between preverbal and postverbal adverbs see Haider 2004). Larson (1988) and Stroik (1990) analyze postverbal adverbs as structural complements, and assign them to the most deeply embedded positions in the VP shells.

(13) [Vmax . . . [V0 V Adv] (adapted from Haider 2004: 789)
Based on Larson’s (1988) analysis of postverbal adverbs, Haider (1992, 2000, 2004) shows that postverbal adverbials are ‘extraposed’ and the ‘extraposition zone’ is a non-compositional subconstituent of the V-projection, so its order relations are not determined by the head; the order relations for adverbials in the extraposition zone are interface effects, that is, they are semantically driven. Note that in contrast to postverbal adverbs in (14), preverbal adverbs cannot be topicalized without a strong focus stress (cf. (15)). Moreover, unlike postverbal adverbs, preverbal adverbs can occur naturally between the verb and its complement (compare (14b) with (15b)):

Extraposed postverbal adverbs:
(14)  
a. He talked to me at the meeting.  
b. ?He talked at the meeting to me. (only when “to me” is stressed)  
c. At the meeting he talked to me. (no stress is necessary)

Non-extraposed preverbal adverbs:
(15)  
a. He often talked to me.  
b. He talked often to me. (no stress on often is needed)  
c. Often he talked to me. (strong stress on often is needed)

2.3. Accounting for the data

The above discussion leads us to the conclusion that a fine-grained analysis of adverbs within a language and across languages is necessary to understand Bruening’s (2014) puzzling data. We have learned so far that high (‘simple’) adverbs and Bruenings’ phrasal adverbials are structurally different: the former are adjoined while the latter are embedded within the VP.

In line with Haider (2004), we show that postverbally embedded phrasal adverbials such as in those conditions, at this meeting, etc. can be preposed to a focus/topic position, and at least some high adverbs might be able to raise too, in Brazilian Portuguese below. However, phrasal adverbials are banned in the same position where experiencers show defective intervention in Romance, while high adverbs are licit in the very same position. The adverbs in the position between the main verb and the embedded infinitive clause could potentially be either part of the embedded or of the matrix clause. Let us start with an adverbial choice that can only modify the embedded verb as in (16):

(16)  
a. Pedro parece ter limpado a casa (ontem/sem ajuda).  
BP Pedro seems have-INF cleaned the house yesterday/without help  
b. Pedro parece (ontem/*sem ajuda) ter limpado a casa  
‘Pedro seems to have cleaned the house yesterday/without help.’

(17)  
a. [Pedro2 [VP seem [[[INF t2 want1,…] t1 without help]]]  
b. * [Pedro [ seem [INF [ without help [t2 want…]]]]]  
edge effect/no TopP

In these examples, one can observe that simple and phrasal adverbials behave differently in cases of extraposition to the position between the raising verb and the embedded infinitive. That is only high or simple adverbs are acceptable in the position where experiencers cause defective intervention. However, in cases of a non-defective embedded domain like in Brazilian Portuguese hyper-raising, both types of adverbs can be topicalized.

(18)  
Pedro parece que (ontem/sem ajuda) limpou a casa  
Hyper-raising  
‘Pedro seems that yesterday/without help cleaned the house without help/yesterday.’

The explanation why all types of adverbs are licit in hyper-raising is that the embedded domain has a more complex structure involving also a TopP. This can be easily observed in Romanian, which has the complementizer ca for introducing topics in the sequence: ca – topicalized phrase – să (Alboiu 2000, Motapanyane 2002):
(19)  

a. *E posibil la întâlnire să se fi enervat Maria.  

Romanian
Is possible at the meeting subj reflex be angry Mary.
‘It is possible that Mary got angry at the meeting.’

b. E posibil ca la întâlnire să se fi enervat Maria.  

Is possible that at the meeting subj reflex be angry Mary.
‘It is possible that Mary got angry at the meeting.’

Note that in Romanian, Bruening’s adverbs are acceptable only when they are introduced by the topic marker ca clearly showing that also in other Romance languages such adverbs can be licit in the post-verbal position of the raising verb only if they have a Topic position available.

What about adverbs that can only modify the matrix verb? Can they occur in the position of defective intervention?

In these cases, the word order in (20b) below indicates that either the phrasal adverbials, which is canonically embedded in the VP and occurs after the infinitival complement (cf. (21a)), is preposed to the left of the infinitive clausal complement (cf. (21b)), or the clausal object is extraposed to right of the adverb phrase (cf. (21c)).

(20)  

a. (Recentemente/Durante a reunião), Pedro pareceu estar querendo se mudar para o interior 

recently/during the meeting Pedro seemed be-INF want-PROGS self move to-the countryside

b. Pedro pareceu (recentemente/??durante a reunião) estar querendo se mudar para o interior 

Pedro seemed recently/during the meeting be-INF want-PROGS self move to-the countryside

‘Pedro seemed recently to want to move to the countryside.’

‘At the meeting, Pedro seemed to want to move to the countryside.’

(21)  

a. [Pedro seem1 [ [VP [INF t2 want1…] t 1 in the meeting]]]  

b. * [Pedro seem1 [VP in the meeting [VP t1 [INF want…]]]]  

c. [Pedro seem1 [VP [INF want…] t1 in the meeting]] [INF want…]  

We assume that the structure in (21c) is ruled out independently, namely due to the impossibility both for the infinitive and for the phrasal adverb to get extraposed at the same time. However, the structure in (21b), as shown in previous sections, is not definitely ruled out. The phrasal adverbial can only occur in that position if it is topicalized and introduced by a topic marker ca like in Romanian like in (19b) (see Alboiu 2000), or it is prosodically separated by a break from the rest of the sentence like in Brazilian Portuguese inducing additional informational reading. Again, high adverbs like recently or soon, which are adjoined and not embedded, do not need any special mechanism to be licit in such a position.

Moreover, the adverb restrictions depicted in (20) above is not a peculiarity of raising verbs. Control structures show similar facts, i.e., a matrix phrasal adverbial cannot be placed between the matrix control verb and the embedded infinitive complement, in contrast to simple adverbs:

4 Note that in monoclausal sentences in (ii) and (iii), one cannot extrapose the verb and its complement and leave the adverbial phrase in situ either; however, the adverbial phrase in (iv) can extrapose (see Haider 2004).

(i) John has met Mary at the meeting.
(ii) *John has at the meeting met Mary.
(iii) *Met Mary has John at the meeting.
(iv) At the meeting, John has met Mary.

5 This is the reason why this sentence (cf. (20b) is mildly unacceptable (‘?’ or ‘??’) with phrasal adverbials, and not deemed fully unacceptable (like the ones with experiencers). They are much better with a prosodic pause separating the adverb and the rest of the sentence, which is expected under our analysis. Language specific constraints on linearization and prosody may also influence the acceptability of these sentences.
Pedro tentou (ontem/??/? na reunião) convencer Maria.

‘Pedro tried yesterday/in the meeting convince-INF Maria’

The same restriction is noticeable also in monoclausal sentences⁶ – phrasal adverbials cannot occur between the object and the main verb; if possible at all, it has prosodic and pragmatic consequences (23c):

a. *João tem nas reuniões observado Maria.
   John has in-the meetings observed Mary
b. *João viu na reunião Maria
   John saw in-the meeting Mary
c. João falou, NA REUNIÃO, com Maria
   John talked  in-the meeting, with Mary

‘It was in the meeting that John talked to Mary.’

To sum up, Bruening’s counterarguments to defective intervention can be explained by a fine-grained analysis of adverbs à la Haider (2001) according to which simple adverbs are adjuncts, while phrasal adverbials are embedded inside the complement VP shell. Experiencers, on the other hand, are attached to the matrix VP (either introduced by an applicative head or in a PP) (cf. Anagnostopoulou 2003, 2005, Diaconescu & Rivero 2005, Marchis & Alexiadou 2013)


a. *Pedro parece pro professor estar cansado. (BP Raising)
   Pedro seems to-the professor be-INF tired
   ‘Peter seems to the professor to be tired.’
b. *Os alunos parecem pro professor que estudaram para a prova. (BP H-raising)
   the students seem-3pl to-the teacher that studied-pl for the exam
   ‘It seems to the professor that the students studied for the exam.’

Since Romance [a/pro DP] experiencers are not PPs but rather DPs where the preposition a is considered to be a morphological realization of inherent Case, experiencers DPs block A-movement⁸.

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⁶ Similar to English:

(i)  a. *Jerome did on some occasions his duty. (Bruening 2014:716)
     b. *John has at the meeting met Mary.
     c. *John has met at the meeting Mary
d. ?John has talked at the meeting to Mary.

⁷ In European Portuguese, the preposition a is used to introduce the Experiencer, like in other Romance languages. Brazilian Portuguese is losing the preposition a and substituting it for the preposition para in this case, which is commonly shorten to pra/pro (to-the.fem/to-the.mas). This phenomenon is discussed by Figueredo & Silva 2007 and Oliveira 2003. Para works like the preposition “a” in other Romance languages being an inherent Case marker.

⁸ English behaves quite exceptionally with respect to this, as it allows raising over a full PP experiencer. See Boeckxs (2008) and Kitahara (1997) for detailed discussion. In a nutshell, English experiencers behave like full PPs and therefore do not cause intervention effects for they don’t e-command the embedded subjects in syntax.

(i)  John seems to Mary [to be nice].
3. Final comments

In sum, in this short paper we have presented data that contradicts Bruening’s (2014) claim that the linear position could explain the unacceptability of both adverbs and experiencers in the position of defective intervention. We argued that the types of adverbs play a crucial role in the acceptability of these sentences due to their placement restrictions. Specifically, high adverbs are adjuncts of the raising verb, while Bruening’s phrasal adverbials are embedded inside the complement VP shell. Experiencers are projected above the raising verb in the Spec of an applicative head.

References


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