

## Book Review

### *The Minimalist Syntax of Defective Domains. Gerunds and Infinitives*

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Defectiveness is an important issue in syntactic theory, namely in the study of non-finite domains that lack tense and/or agreement features. In this book, Acrísio Pires investigates this topic, searching for a unified analysis of English gerunds and Portuguese infinitives by focusing on subject licensing and, consequently, on agreement, Case and Control properties. According to the author, the above mentioned constructions present some sort of defectiveness in tense and agreement features, and, in spite of some variation, they share a wide range of properties that can be explained under the same mechanisms, namely by adopting the movement theory of control (Hornstein, 1999). Besides the synchronic analysis, the book also addresses some historical aspects of Portuguese infinitives, thus providing an important contribution for the theory of language acquisition and change.

The book begins with an excellent introduction offering a very complete overview of the goals and the topics to be addressed. In this introduction, the main steps of the argumentation and the main proposals are presented in a detailed way. This could turn out to be a problematic strategy: due to the richness of the overview the reader could almost dispense with reading the following chapters. However, the effect is exactly the opposite: the data presented and the sketched analysis are so interesting and robust that the reader is

necessarily curious about the fine-grained argumentation and the exact proposals to be made.

As far as English gerunds are concerned (chapters 1 and 2), Pires argues for a tripartite distinction: clausal gerunds (henceforth, CGs) that are complements to verbs or prepositions as well as subjects of matrix clauses (1), TP-defective gerunds (2) and gerunds as complements of perception verbs (3).

- (1) a. Mary favored [Bill taking care of her land].  
 b. Susan worried about [Mary being late for dinner].  
 c. [Sue showing up at the game] was a surprise to everybody. (p. 16)
- (2) a. Mary started reading the newspaper.  
 b. Bill tried [*e* talking to his boss]. (p. 70)
- (3) Mary saw Paul leaving the house. (p. 88)

The main empirical evidence for this tripartition lies on the way these gerunds license their (null and/or overt) subjects and on tense and aspectual distinctions they allow. To account for these differences, Pires proposes that all these gerunds project at least VP, but they can vary as to whether other functional categories project up to this level. Additionally, he claims that some gerunds may project the same root functional category and yet they can differ as to the features realized in this functional projection, namely the  $\phi$ -features. In other words, a functional category such as T may project although it is defective as far as  $\phi$ -features are concerned. This is clearly a promising approach to defective domains, also explored in Chomsky (1995) in terms of  $\phi$ -(in)completeness. The idea is that some related constructions share a similar structure in the sense that the same set of functional categories project, although they can be distinct in what concerns the completeness or the defectiveness of these categories. This is also crucial to the analysis presented in Gonçalves (1999) for restructuring infinitives in European Portuguese (EP). The similar approaches to different defective constructions tested both in Gonçalves (1999) and in Pires (2006) contributes to the robustness of the analysis proposed by both scholars and points to its adequacy in what concerns the treatment of syntactic defectiveness.

Assuming this general proposal, Pires presents empirical evidence for the fact that CGs such as the ones in (1) project a bare TP/IP. Consequently, they license either PRO or lexical subjects (*I prefer [Peter/him/PRO reading the book].*, p. 3), including *there* expletives (*Paul counted on there being many people in the party.*, p. 4), and they allow perfective morphosyntax (*Ann counts on [John having finished the exam by now].*, p. 4). This analysis of CGs diverges from the ones in Abney (1987), Milsark (1988) and Kaiser (1999) which suppose that these domains must be recategorized as DPs.

In order to account for the licensing of overt and null subjects in CGs contexts, Pires dispenses with the need of a [Tense] distinction, against previous analysis such as Bošković (1995, 1997) and Martin (1996, 2001), and adopts the mechanisms of the movement theory of control. Specifically, he proposes that the embedded T has an EPP-feature that needs to be checked/valued and it enters the numeration as  $\phi$ -defective. Being so, the embedded T must have its own Case feature checked/valued (due to the empirical fact that CGs are not allowed in Caseless positions) by a matrix  $v$  or T. If the valuation of the Case feature of T occurs first, then T can check/value the Case feature of an embedded lexical DP. If the embedded subject moves out of the CG before the Case feature of T is checked/valued, a standard obligatory control PRO construction obtains. As the author remarks, adopting this analysis obviously implies that  $\theta$ -roles can be discharged in the course of the derivation and not only by first Merge.

Such an approach has the advantage of excluding PRO as an independent element in the grammar and in the numeration; PRO becomes the residue of NP-movement, in the spirit of Hornstein (1999). However, from a theoretical point of view, it is not clear why the Case checking/valuation of T occurs before the Case checking/valuation of the DP in some cases but not in other cases. For instance, it would be interesting to make more explicit what sort of mechanisms is at stake in (4), so that, in the same context, the embedded subject can be either PRO (as a copy of NP-movement, (4a)) or an overt DP (4b):

- (4) a. The manager preferred [PRO being considered for the position in the downtown office].  
 b. The manager preferred [Mary being considered for the position in the downtown office].

(p. 38)

TP-defective gerunds appear to be more defective than CGs, in the sense that they license only a PRO subject and are totally dependent on the tense/aspect specifications of the matrix. These properties suggest that TP-defective gerunds are close to the class of restructuring infinitives analyzed in Wurmbrand (2001). However, as stressed by the author, TP-defective gerunds cannot be treated in the terms of Wurmbrand's restructuring. In fact, he presents empirical evidence for an embedded [spec,  $v$ P] position in which the external argument is merged. After raising to the matrix subject position, this external argument corresponds to an embedded controlled PRO. This proposal differs from the one in Wurmbrand (2001), since she claims that in languages like German, Dutch and Italian restructuring infinitives lack that position, preventing the occurrence of either an overt subject or PRO. Therefore, the empirical data led Pires to the conclusion that in English TP-defective gerunds either T is missing or it projects but it is defective.

Assuming again the approach to control as the result of NP-movement, Pires succeeds in unifying the analysis of CGs and TP-defective gerunds and in accounting for the fact that in both constructions the embedded subject can have an obligatory control reading. In order to explain why TP-defective gerunds do not allow an overt subject, contrary to CGs gerunds, the author resorts to the properties of the embedded T. He argues that in the former construction T does not have a full set of  $\phi$ -features and, so, it cannot check/value the Case of the embedded subject. The only possibility for the embedded external argument to check its Case feature is the movement to the matrix clause, which determines the obligatory control reading. As mentioned by Pires, more needs to be said about  $\phi$ -defectiveness and the exact composition of defective heads, in order to make clear why CGs also project a  $\phi$ -defective T, but, contrary to TP-defective gerunds, they allow for overt subjects.

Finally, gerunds as complements to perception verbs (PVC) are considered to be more deficient than CGs and TP-defective gerunds, in the sense that they are analyzed as bare  $\nu$ Ps, although an aspectual node above  $\nu$ P is admitted. PVCs pattern with TP-defective gerunds in what concerns the absence of independent tense/aspect specifications and expletive subjects; however, they differ in what concerns the nature of the embedded subject: PVCs only license overt subjects, contrary to TP-defective gerunds where a PRO obligatorily obtains. Again, an analysis of control based on A-movement captures the facts. Pires argues that PVCs may be analyzed as instances of object control in which the embedded gerund cannot check the Case of its subject, due to the lack of T. Therefore, raising to the matrix subject position is the only way for the derivation to converge.

Portuguese infinitival constructions are the topic of chapter 3, whose main goal is to explain the properties of these constructions from a perspective similar to the one the author adopts for English gerunds. The proposal is that an analysis based on  $\phi$ -defectiveness connected to the movement theory of control is needed to account for Portuguese infinitives, too.

Regarding Portuguese inflected infinitives, Pires shows that they may display both a *pro* or an overt DP (cf. Raposo, 1987). This double possibility is due to the fact that in this case T is  $\phi$ -complete, so it can delete the nominative Case feature of the subject, no matter what this is – a *pro* or a lexical DP –, blocking any further movement to the matrix domain. On the contrary, Portuguese non-inflected infinitives project a  $\phi$ -defective T, with the EPP-feature. This means that a DP is needed in the [spec, TP] position, but, due to the defectiveness of T, the [-interpretable] Case feature of that DP cannot be deleted. Movement to the matrix subject position is understood as a last resort operation for the derivation to converge.

If this analysis is in the right track, the contrast between a movement analysis (in the case of obligatory control) and a non-movement one (in the case of non-obligatory control) correlates with morphological distinctions. Additional evidence is provided by binding effects: the binding domain for

non-inflected infinitives is the matrix clause, whilst inflected infinitives behave as independent domains for binding.

The discussion on *believe*-type verbs in Brazilian Portuguese (BP) also proves that a tense-based approach to control/null Case makes the wrong predictions, since those verbs license a controlled PRO, but fail to display the [+eventive]/[+tense] interpretation in the absence of an overt operator.

The chapter ends up with a brief review of Greek subjunctives and overt subjects in infinitival contexts of Romance languages such as Spanish, Modern French and Italian. The data presented support the claim that PRO can be eliminated from the grammar and that the properties of functional heads are crucial to account for the distribution of null and overt subjects.

Chapter 4 deals with some innovations in the history of Portuguese infinitives. The author adopts a cue-based theory of acquisition and change, emphasizing the interaction between properties of the Universal Grammar (UG) and the primary linguistic data (PLD), in the spirit of Lightfoot (1999). In this sense, cues are understood as “pieces of linguistic structure that define properties whose specification is left open by UG.” (p. 129). As far as Portuguese infinitives are concerned, the relevant cues are *Mood* and *verbal agreement* (p. 131). The cue-based approach seems to be very interesting since it allows that divergent cues can be found in different domains in the same grammar.

The first change Pires analyzes concerns the origin of inflected infinitives in Old Portuguese. Following the arguments presented in Martins (2001), a.o., the author claims that those infinitives did not develop from the non-inflected infinitive, but rather from the late Latin imperfect subjunctive that already existed in the PLD the new generations were exposed to.

The second change is the ongoing loss of inflected infinitives in Colloquial BP (ColBP), which affects the licensing of null subjects. This innovation is related to the reduction of distinctive forms affecting the pronominal system and to the widespread reduction in verbal inflection of BP.

According to Pires, the loss of inflected morphology in ColBP infinitives has only a partial syntactic effect: the new non-inflected infinitives do not block overt subjects (contrary to true non-inflected infinitives), although they do not license *pro* with non-obligatory control properties. In terms of the acquisition of BP, this means that, if a child does not identify the cue of agreement in infinitives, he/she does not incorporate *pro* in his/her grammar.

The above mentioned changes are related to a larger set of innovations in BP, namely the loss of subject-inversion and shifts in clitic placement. Pires argues that all these phenomena are the result of the weakening (or possible loss) of the FP node (cf. Uriagereka, 1995a, b) in the left-periphery of TP in BP, which unables V-to-F movement. This variety of Portuguese contrasts, in this respect, with EP, in which F is strong/active, thus attracting the verb. This explains why proclisis is the preferred pattern of clitic placement in BP but not in EP.

One of the innovations in the new BP grammar is clitic placement in verbal sequences, in which the embedded verb hosts the clitic (p. 160):

- (5) Maria queria me/te/lhe falar.  
 Maria wanted [<sub>CL</sub> me/you/him.DAT] to talk

Diachronic data show that this new order arises at the 19<sup>th</sup> century as the result of other innovations in the grammar of BP speakers. Pires formulates the hypothesis that in BP clitic raising to a position above the inflected T was lost and clitics started adjoining to the left of simple verbs. My opinion is that, although making the right predictions, this hypothesis has to be further explored, especially in what concerns the contrasts in clitic placement between BP and EP. One alternative hypothesis is formulated and confirmed in Duarte, Matos & Gonçalves (2005). The authors claim that microvariation in clitic placement can be accounted for if we assume the interplay of: (i) verb movement; (ii) the Proclisis Parameter and (iii) the properties of the nodes T and Asp, namely their ability to attract V and/or to check uninterpretable features.

In sum, this is an important contribution for the study of syntactic defectiveness in non-finite domains. The argumentation is very convincing and the analysis is well sketched and finalized. The attempt of providing a unified analysis of English gerunds and Portuguese infinitives has succeeded. In fact, the way Pires adopts the movement theory of control and extends it to gerunds is very elegant and proves that a tense-based approach to control/null Case does not hold.

The idea that some heads project but are defective in some of their features is quite attractive. In fact, not only it provides an appropriate explanation of the facts accounted for by Pires, but it also applies cross-linguistically to other constructions. This is the case, for instance, of restructuring infinitives in EP, which Gonçalves (1999) also analyzes as instances of T-defectiveness.

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