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ANOTHER LOOK AT LITHUANIAN IMPERSONAL PASSIVES*

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It has been claimed in the literature that Lithuanian differs from other languages in allowing impersonal passives of unaccusative, raising and passivized verbs. In this paper I propose another analysis for these constructions. Based on the fact that '*by*-phrases' of standard passives are morphologically identical to NPs marked with possessive genitive Case, I propose that the head of participial TP in Lithuanian is a nominal element which is able to assign genitive Case to its Specifier. The alleged impersonal passives in Lithuanian are then analyzed as simple instances of raising a Caseless NP to the Specifier of the participial TP.

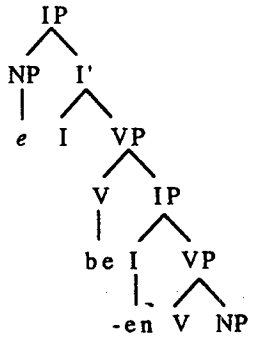
1. Introduction

Lithuanian has been receiving considerable attention in the literature (see Timberlake 1982, Nerbonne 1982, Keenan & Timberlake 1985, Postal 1986, Baker, Johnson & Roberts 1989, among others) because it apparently allows not only impersonal passives of unergative verbs, as in languages such as German, but also impersonal passives of unaccusative, raising and even passive verbs. Lithuanian thus seems to be an exception to the generally accepted generalization that passive morphology somehow withholds the θ-role that would otherwise be assigned to the subject of an active sentence (see Chomsky 1981, Jaeggli 1986, Roberts 1987, and Baker, Johnson & Roberts 1989, among others).

Within the framework of Relational Grammar, such a generalization follows from the 1-Advancement Exclusiveness Law (1AEX Law), which requires that only one argument acquire subject status in the derivation of a given clause (see Perlmutter 1978, Perlmutter & Postal 1984). Within the Principles and Parameters Theory, Baker, Johnson & Roberts (1989) have proposed that this generalization follows from the fact that the D-structure representation of a passive clause has the general format as in (1) on the next page, where the passive morpheme *-en* is an argument base-generated under Infl.

As an argument generated in Infl, the passive morpheme should be assigned the external θ-role in the sense of Williams 1981 and, therefore, cannot appear with verbs that do not assign such a θ-role, such as unaccusative, raising, and passive verbs, as exemplified in (2a-c) respectively (Baker, Johnson & Roberts's (39)):

(1)



(2) a. *It is grown very fast (by children) in this orphanage.
b. *It was seemed to have left (by John).
c. *It was been broken (by the vase) by John.

In order to account for the Lithuanian constructions such as (3)-(5) below,[1] which are claimed to be analogous to those of (2), Baker, Johnson & Roberts (1989:232) propose that the Lithuanian passive morpheme is not an Infl head, but rather a noun that cliticizes to Infl. On such a proposal, 'the Lithuanian passive morpheme can appear in any NP position generated by the base', yielding possible derivations for (3)-(5).

(3) Kur mūs gimta, kur augta?
where by-us bear (PASS.NT.SG.) where grow (PASS.NT.SG.)
'Where were we born, where did we grow up?'
(lit. 'where by us was getting born, where getting grown up?')
(Timberlake 1982)

(4) Jo pasirodyta esant didvyrio.
him (GEN.) seem (PASS.NT.SG.) being hero
'By him it was seemed to be a hero'.
(Keenan & Timberlake 1985)

(5) To lapelio būta vėjo nupūsto.
that leaf (GEN.) be (PASS.NT.SG.) wind (GEN.) blow (PASS.NT.SG.)
'By that leaf there was being blown down by the wind'.
(Timberlake 1982)

In this paper, I argue within the framework of the Principles and Parameters Theory that Lithuanian constructions such as (3)-(5) have been misanalyzed. Rather than being impersonal passives of unaccusative, raising and passive verbs, I propose that these constructions be treated analogously to the possessive *-ing* constructions in English illustrated in (6) below (see Abney 1987, Milsark 1988, and references therein). In particular, I propose that the head of the participial TP in Lithuanian is a nominal element that assigns genitive Case to its specifier in the same way possessive *-ing* in English does.

(6) a. [John's arriving late] annoyed everyone.

b. [John's appearing to have behaved like a hero] was mentioned in the meeting.
c. [John's being arrested by the police] was the gossip of the day.

The paper is organized as follows. In section 2 I present some properties of the participial T head in Lithuanian. In section 3 I lay out my proposal concerning participle constructions in Lithuanian, showing in section 4 how the so called impersonal passives can be analyzed under such a proposal. In section 5, I discuss the pattern of participial agreement in Lithuanian impersonal passives. Finally, I present some comparison between Lithuanian participles and English possessive *-ing* in section 6.

2. Characterizing Lithuanian participle morphemes

2.1 Lithuanian participle morphemes as heads of TP

As mentioned in section 1, Baker, Johnson & Roberts (1989) argue that the passive morpheme *-en* in English is generated in Infl (cf. (1)). This provides a simple account for the fact that a passive verb in English cannot take the past tense suffix *-ed*, as shown in (7) below. If the passive morpheme *-en* is generated in Infl, it is expected to be in complementary distribution with the other tense morphemes that are generated in Infl.

(7) *John seened/sawen by everyone.
'John was seen by everyone'.

By the same reasoning, were the Lithuanian passive morpheme generated in any noun position as proposed by Baker, Johnson & Roberts, we should expect constructions analogous to (7) to be well-formed in Lithuanian. Infl in a passive construction should be allowed to have tense morphemes, because the passive morpheme would not be generated under this node.

This expectation is not met, however. In Lithuanian, the past passive participle is formed by removing the infinitival ending *-ti* and adding *-tas* (nom., masc., sg,) or *-ta* (nom., fem., sg.). In turn, the present passive participle is formed by adding the endings *-mas* (nom., masc., sg.) or *-ma* (nom., fem., sg.) to the 3rd person present tense form of verb, which is composed of the stem and a vowel specifying conjugation (see Dambriūnas, Klimas, & Schmalstieg 1966). In both present and past participle constructions, the passive verb carries no tense morpheme other than the passive morpheme itself. Finite tense inflection in these constructions is carried by the copular verb *būti* ('to be'), which may be omitted in the present tense, as exemplified in (8) (see Dambriūnas, Klimas, & Schmalstieg 1966):

(8) Ji (yra) giria-m-a.
she (NOM.) be (3 PRS.) praise-PPLE.-NOM.FEM.SG.
'She is being praised'.

The similarities in distribution between the passive participle morphemes in Lithuanian and the passive morpheme in English suggest that they are generated in the same position. I thus propose that the Lithuanian participle morphemes are also associated with a projection of Infl. I take the structure of Lithuanian participial clauses to be essentially the same as the one proposed by Baker, Johnson & Roberts in (1) for English passives, only updating it in terms of the 'Split Infl Hypothesis' (see Pollock 1989, Belletti 1990, Chomsky 1991).

I propose that the present participle *-m-* and the past participle *-t-* head a projection of TP.[2] Furthermore, I adopt Belletti's (1990) structure for Infl and assume that the TP headed by a participle affix is dominated by an agreement projection (AgrsP), postponing the discussion of the existence of an AgroP projection in participle clauses until section 6.

This approach accounts for the fact that in 'double passives' such as (5), the two 'passive' morphemes are attached on two different verbs, rather than onto a single verb. Since each participle morpheme heads a projection of TP, participial forms with more than one participle morpheme are not possible, for the same reason that a participle morpheme does not cooccur with another tense morpheme.

2.2 Lithuanian participle morphemes as nominal Case-assigners

Recall that by taking the 'passive morpheme' in Lithuanian to be a noun, Baker, Johnson & Roberts (1989) intended to account for constructions in which the participle affix seems to receive a θ-role other than the external one. As pointed out in section 2.1., however, their claim that the passive morpheme can be generated in any noun position makes wrong predictions with respect to the distribution of participle affixes and other tense morphemes (for other problems with such an approach, see Nunes 1994b).

Nevertheless, I keep to Baker, Johnson & Roberts's idea that the participle morphemes in Lithuanian are nominal elements for different reasons. I follow a suggestion by Jaeggli (1986:592, fn. 6), according to which an element must be N-like to carry Case and a θ-role. Assuming that the participle affixes of standard passives in both English (see Baker, Johnson & Roberts 1989) and Lithuanian (see Nunes 1994b) are assigned the external θ-role and marked with accusative Case, they should be nominal elements.

Two pieces of morphological evidence in Lithuanian support this claim. First, the Agr head that immediately dominates the participial TP exhibits overtly the same φ-features (see Chomsky 1981) that show up in nominal phrases, namely, Case, gender and number, as illustrated by (9):

(9) Krištolinis sietynas buvo mano pirk-t-as.
chandelier (NOM.MASC.SG.) was I (GEN.) buy-PPLE.-NOM.MASC.SG.
'The chandelier was bought by me'.
(Timberlake 1982)

The particular set of ϕ-features associated with the participial Agr head, although suggestive, cannot be taken as irrefutable evidence that the participial T head is a [-V,+N] element, for these features may be amenable to another interpretation. The specific genitive form of the '*by*-phrase'[3] of (9), on the other hand, provides unequivocal evidence.

As pointed out by Timberlake (1982:522, fn. 2), 1st person sg., 2nd person sg. and reflexive pronouns distinguish two genitive forms: one used to express possession, and the other used for complements of verbs or prepositions. *Mano*, for instance, is the 'possessive' genitive form of the 1st person sg. pronoun, whereas *manęs* is the 'verbal/prepositional' genitive form, as shown in (10) below. As we can see in (9), it is the possessive genitive that is used to express the agent of a passive, which means that there must be a nominal Case-marker in the participial clause. Under the present considerations, the participial T head is the best candidate as the source of the nominal genitive Case assigned to the '*by*-phrase.'

(10) a. Mano tevas buvo gydytojas.
'My father was a doctor'.
b. Jis laukia manęs.
'He is waiting for me'.
(Dambriūnas, Klimas & Schmalstieg 1966)

3. Proposal

It seems to me that the fact that a '*by*-phrase' in regular passives in Lithuanian surfaces with nominal genitive Case is the main misleading reason for taking constructions such as (3)-(5) to be impersonal passives. Baker, Johnson & Roberts (1989:235) propose that the English passive morpheme is a syntactic clitic that can form a chain with a '*by*-phrase', thus resembling clitic-doubling constructions. Judging by the literal glosses given to the sentences in (3)-(5), it seems that Baker, Johnson & Roberts also take the Lithuanian passive morphemes and the '*by*-phrases' (the genitive NPs) to be in a kind of clitic-doubling relation.

Something along these lines must certainly be true with respect to standard passives such as (9), since it is reasonable to assume that they behave like English passives in that their participle morpheme and '*by*-phrase' receive the same θ-role, forming a chain. Nevertheless, it is not obvious how instances of double passives such as (11) are amenable to a clitic-doubling approach:

(11) Tų lapelių bū-t-a
those leaves (GEN.MASC.PL.) be-PPLE.-NOM.NT.SG.
vėjo nupūs-t-ų.
wind-GEN.MASC.SG. blow-PPLE.-GEN.MASC.PL.
'Those leaves were (presumably) blown down by the wind'.
(adapted from Timberlake 1982)

The affix of the main verb of (11) presumably cannot participate in two different clitic-doubling chains with both genitive NPs, because this would violate the θ-Criterion (see Chomsky 1981). Another problem would arise, on the other hand, if the affix of the copular verb *būti* ('to be') entered into a chain with either of the genitive NPs. Such a chain would presumably induce a θ-Criterion violation as well, because it would involve one of the arguments of the main verb and the affix of the copula, which is not an argument (as a copula, *būti* is not a θ-assigner).

If, by contrast, we assume that the Lithuanian participial T head associated with the participle morphemes is a nominal Case-assigner, which is independently required for regular passives such as (9), the only thing we have to say in order to account for the so called impersonal passives in Lithuanian is that the genitive NPs of these constructions are Case-marked by the participial T head. In other words, it is not necessary to extend a clitic doubling analysis to every pair composed of a participle morpheme and a genitive Case-marked NP. Under this view, the common property between 'personal' and 'impersonal' passives in Lithuanian is in terms of Case (in both types of construction the participial T head is a nominal Case-assigner), rather than in terms of θ-Theory.

Notice also that the lack of one-to-one correspondence between participial morphology and passive constructions is not an idiosyncratic property of Lithuanian. In English, as in many other languages, such correlation does not hold either, as illustrated by the active sentence in (12), which employs participial morphology (for further discussion, see Roberts 1987, Nunes 1993, 1994c, among others):

(12) John had seen Mary before the accident.

In the next section we will see how the proposal that the participial T head in Lithuanian assigns (nominal) genitive Case allows us to account for the apparently unusual impersonal passives of this language, while assuming an updated version of the structure proposed in (1) by Baker, Johnson & Roberts (1989).

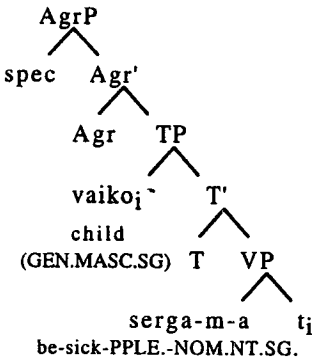
4. 'Impersonal passives'

4.1. Unaccusative, unergative and raising verbs

If the participial T head in Lithuanian is a nominal Case-marker, alleged instances of impersonal passives of unaccusative verbs such as (13) can be represented as simply as in (14):

(13) Vaiko serga-m-a.
child (GEN.MASC.SG.) be-sick-PPLE.-NOM.NT.SG.
'(Evidently) the child is sick'.
(Timberlake 1982)

(14)



The NP that heads the chain with the internal θ-role is generated in the object position of the verb, as in regular unaccusative constructions, and the participle affix is associated with a participial T head, as in standard passives. Differently from standard passives, however, the participial T head in (14) is not θ-marked, since the unaccusative verb *sergti* ('to be sick') does not assign an external θ-role. The Caseless NP in object position then moves to the Spec of the participial TP, where it receives (nominal) genitive Case.

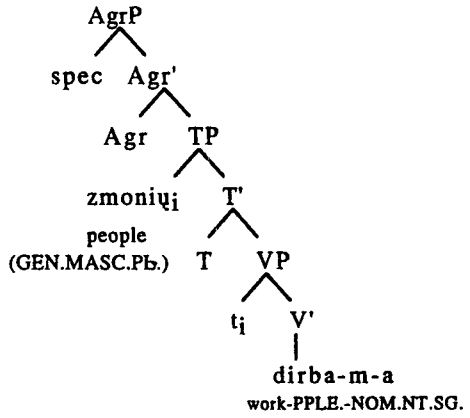
This analysis carries over straightforwardly to 'impersonal passives' of unergative and raising verbs such as (15) and (17) below. In both instances, a Caseless NP moves to the Spec of the participial TP, receiving genitive Case, as represented in (16) and (18) on the next page:

(15) Čia zmonių dirba-m-a.
here people (GEN.MASC.PL.) work-PPLE.-NOM.NT.SG.
'Here people are working'.
(Matthews 1955)

4.2 'Double passives'

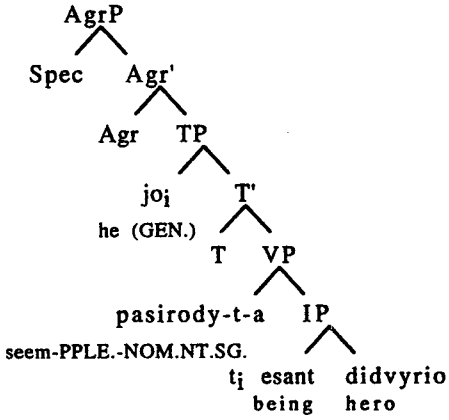
The apparently exotic double passive constructions in Lithuanian (impersonal passives of regular passives) such as (11), repeated below in (19) for convenience, receive a rather standard analysis under the approach pursued in this paper. These constructions are treated here as standard 'personal passives' like (9), the only difference being the finiteness of the TP dominating the copula, as the simplified representation in (20) shows.

(16)



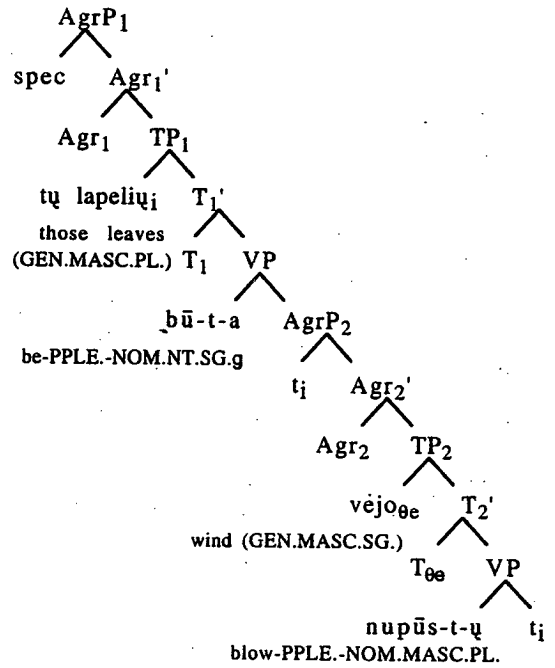
(17) Jo pasirody-t-a esant didvyrio.
he (GEN.) seem-PPLE.-NOM.NT.SG. being hero (GEN.MASC.SG.)
'He (really) seemed to be a hero'.
(Keenan & Timberlake 1985)

(18)



(19) Tų lapelių bū-t-a
those leaves (GEN.MASC.PL.) be-PPLE.-NOM.NT.SG.
vėjo nupūs-t-ų.
wind-GEN.MASC.SG. blow-PPLE.-GEN.MASC.PL.
'Those leaves were (presumably) blown down by the wind'.
(adapted from Timberlake 1982)

(20)



In (20), there is no element in the Spec of the VP headed by *nupūstų* ('blown down') to bear the external θ-role. If the verb does not discharge such a θ-role, the derivation violates the θ-Criterion. The verb can however assign the external θ-role to the lower participial T head, which, as a nominal element, is a possible θ-role bearer (see section 2.2). The lower participial T head then forms a clitic-doubling chain with the genitive *'by*-phrase' *vėjo* ('by the wind') in its Specifier (see section 3), represented in (20) by the index *θe*. Once the participial T head is assigned a θ-role, it must be Case-marked in order to comply with the Visibility Condition (see Chomsky 1986). The main verb then raises and assigns Case to T.

So far, this derivation does not differ from the derivation of standard passive constructions such as (9). The only difference between those constructions and the one in (20) is that, rather than being finite as in (9), the clause containing the copula verb in (20) is also participial. The Caseless object then raises to Spec of the upper participial TP and receives genitive Case (see Nunes 1994b for a discussion of how such a movement satisfies the Shortest Movement Condition of Chomsky 1993).

5. Agreement relations

The analysis presented above provides a straightforward account of the paradigm of participial agreement in Lithuanian, which is summarized in (21) (for further discussion see Nunes 1994a):

(21) a. In standard passives, the participial form agrees with the subject (the underlying object) in gender, number and Case.
b. In 'impersonal passives', the participial verb surfaces in the nominative, neuter, singular form.
c. In 'double passives', there is agreement in gender number participial auxiliary, which exhibits [nom., nt., sg.] morphology.

On its way to the Spec of finite Infl, where it receives nominative Case, the object of standard passives passes through the Spec of AgrP that dominates the participial TP (see the movement of the object to Spec of $AgrP_2$ in (20)), triggering agreement with the participial form. On the other hand, the NPs that receive genitive Case in the Spec of the participial TP in 'impersonal passives' do not pass through the Spec of the participial AgrP (cf. (14), (16) and (18)). Thus, no agreement is triggered and the participial form surfaces with default agreement morphology ([nom., nt., sg.]).

Finally, in 'double passive' constructions, both types of agreement occur. The object passes through the Spec of the lower participial AgrP on its way to the main clause, triggering agreement with the main verb. Since the object receives genitive Case in the Spec of the upper participial TP, the main verb surfaces in the genitive form. On the other hand, since the object does not pass through the upper Spec of AgrP (cf. (20)), no agreement with the participial auxiliary is triggered and the copula surfaces with default features. This derives the curious fact that in 'double passives', the subject agrees with the main verb 'skipping' the auxiliary verb.

To the extent that this unusual pattern of agreement can be explained without any additional machinery that is not already required by an account of more familiar participle constructions, it provides empirical support for the analysis pursued here.

6. Similarities and Differences with Possessive *-ing* Constructions

If the above reasoning is correct, the so called impersonal passives in Lithuanian such as (13), (15), (17) and (19) are better analyzed as analogous to the possessive *-ing* constructions in English exemplified in (21) (see Abney 1987, Milsark 1988, and references therein):

(21) a. [John's arriving late] annoyed everyone.
b. [John's working in that place] impressed everyone.
c. [John's appearing to have behaved like a hero] was mentioned in the meeting.
d. [John's being arrested by the police] was the gossip of the day.

The participle morphemes in Lithuanian and the possessive *-ing* in English may be taken to be associated with nominal functional heads that are able to assign genitive Case to their Specifiers. In En-

glish, the Case assigned by the possessive *-ing* is morphologically distinct from the Case manifested in '*by*-phrases', as shown in (21d). Lithuanian participle constructions, on the other hand, do not distinguish a 'standard' genitive NP from a true '*by*-phrase', because both phrases are Case-marked by the participial T head (see section 3).

Another difference between possessive *-ing* constructions in English and Lithuanian participle constructions refers to their ability to license accusative objects, as illustrated in (22) and (23):

(22) [John's buying a house] surprised everyone.

(23) *Mano nupirk-t-a krištolin**į** sietyną.
I (GEN.) buy-PPLE.-NOM.NT.SG. chandelier (ACC.MASC.SG.)
'(Evidently) the chandelier was bought by me'.

If successful accusative Case assignment requires checking by an AgroP projection (see Chomsky & Lasnik 1993, Chomsky 1993), we can attribute the contrast between (22) and (23) to the existence of an AgroP projection in possessive *-ing* constructions but not in Lithuanian participle constructions. This seems to be related to the fact that there can be no projection between the participial T head and the VP if T can also be assigned the external θ-role. Conversely, the existence of an AgroP projection between the VP and the functional head associated with possessive *-ing* prevents this affix from behaving like a passive morpheme in being assigned the external θ-role, blocking a sentence such as (24) (for further discussion see Nunes 1994b, 1994c):

(24) *The house's buying by John impressed everyone.

7. Conclusion

According to the analysis developed above, the apparently deep differences between the participle constructions of Lithuanian and English, for instance, reduces to one morphological difference: the participial T head in Lithuanian is a Case assigner. Thus, Lithuanian participial T head is able to Case-mark not only an NP that it forms a chain with in regular passives (a '*by*-phrase'), but any Caseless NP that passes through its Specifier.

This property is what derives apparently exotic impersonal passives of unaccusative, raising and passivized verbs in Lithuanian. To the extent that the term *passive* is descriptively used to refer to constructions in which a θ-role is assigned to the participle affix, it is misleading to call these constructions impersonal passives, for their participle affixes are assigned no θ-role at all.[4] Under the approach developed here, the common feature between 'personal' and 'impersonal' passives is in terms of Case, rather than θ-Theory.

NOTES

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[1] I maintained Baker, Johnson, & Roberts's glosses for (3)-(5). The glosses of the remaining Lithuanian sentences cited in this paper are based on the ones given by Matthews (1955) and Timberlake (1982), for the reasons discussed in section 3. I will also differ from Baker, Johnson, & Roberts in using PPLE. ('present or past participle') instead of PASS. ('passive') to translate participial forms, for reasons that will become clear. Finally, hyphens will be employed in participial forms in order to facilitate the identification of relevant morphemes.

[2] I follow Chomsky (1993:27-28) in taking lexical elements to be fully inflected at the point of their insertion into a phrasal marker. Descriptions such as 'the affix *x* projects into XP' or 'the affix *x* receives a θ-role' in the course of the following discussion should thus be understood as abbreviations for 'the head associated with the affix *x* projects into XP' or 'the head associated with the affix *x* receives a θ-role'.

[3] I use the term *by-phrase* to refer to the element that, together with the participle affix, realizes the external argument of a verbal predicate (see Jaeggli 1986, and Baker, Johnson, & Roberts 1989, among others).

[4] A similar conclusion is reached by Postal (1986) within the framework of Arc Pair Grammar.

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THE COPY THEORY OF MOVEMENT AND DELETION OF TRACES IN THE MINIMALIST PROGRAM

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1. Introduction[1]

Within the Principles and Parameters Theory (see Chomsky (1981, 1986) and Chomsky and Lasnik (1993)), the notion *trace* encompasses several types of objects which have in common the properties of being produced by a movement operation and being phonetically null. Regardless of whether traces have intrinsic features or acquire some feature specification in the course of the derivation (see Chomsky (1982), for instance), they end up being different entities. A trace of an NP occupying an A-position, for instance, is subject to the Principle A of Binding Theory, a trace of an NP occupying an operator position is a variable subject to Principle C, and a trace of a verb is subject to neither (see Chomsky (1973, 1981, 1982, 1986), Fiengo (1977), Aoun, Hornstein, Lightfoot and Weinberg (1987), Rizzi (1990), and Epstein (1991), among others). The distinct nature of each type of trace is captured by means of the coindexation between the trace(s) and the moved element.

In his *Minimalist Program for Linguistic Theory*, Chomsky (1993) revives the "copy theory of movement", according to which a moved element leaves behind a copy which gets deleted in the phonological component, but remains available for interpretation at LF. As discussed by Chomsky (1993), the copy theory accords well with the general conceptual concerns of the Minimalist Program in that it allows Binding Theory to be stated solely at LF without resorting to noninterface levels, it provides the basis for the interpretation of displaced idiom chunks at LF, and it paves the way for eliminating reconstruction as an additional operation of the computational system.

From a Minimalist perspective, another conceptual advantage of assuming the copy theory is that it satisfies the inclusiveness condition which restricts the reference set of derivations that can be compared for economy purposes (see Chomsky (1995:228-229)). According to the inclusiveness condition, an LF object

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[1] This paper is based on chapter III of Nunes (1995). Earlier versions of the ideas presented here appeared in Nunes (1994, 1996). I would like to thank Mark Arnold, Norbert Hornstein, Ellen Thompson, and Juan Uriagereka for comments and suggestions.

must be built from the features of the lexical items of the corresponding initial lexical array (the numeration in the sense of Chomsky (1995:225)). If the notion of trace is a grammatical primitive, the introduction of traces in the course of the derivation violates the inclusiveness condition because traces are not present in the initial numeration. Under the copy theory, on the other hand, a trace is either a copy of a lexical item of the numeration or a copy of an X'-theoretic object built from lexical items of the numeration.

Pursuing the simplest — and therefore most desirable — version of the copy theory of movement, heads of chains and traces should be subject to the same constraints and the notion of trace should be treated as epiphenomenal, akin to the taxonomic notions of passive and wh-movement. The properties of different traces should thus be derived either from the content of the copies themselves or from the movement operation. For instance, the locality restriction on the distribution of traces may follow from the Minimal Link Condition (see Chomsky (1995:chap. 4)), while the interpretation of a wh-trace as a variable may be due to its intrinsic features (see Chierchia (1991) and Hornstein (1995:chap. 6), for instance).

Such a Minimalist approach to the copy theory of movement appears to be unfeasible, however, given that one of the fundamental properties of traces is that they cannot be phonetically realized. In addition to this unexplained difference between heads of chains and traces, it has also been proposed (see Kayne (1994:chap. 2, fn. 3) and Chomsky (1995:337)) that traces are not subject to Kayne's (1994) Linear Correspondence Axiom (LCA).[2] Assuming the general framework of Chomsky (1995:chap. 4), this paper takes some steps towards eliminating traces as grammatical primitives in the grammar by providing an account of the fact that traces lack phonetic realization, while crucially assuming that heads of chains and traces are both subject to LCA.

The discussion is organized as follows. Section 2 outlines the main problems that any version of the copy theory of movement has to deal with as far as deletion of traces is concerned. Section 3 discusses Chomsky's (1993, 1995) proposal that deletion of traces is related to ellipsis, and section 4 discusses the claim that traces are not subject to the LCA. Section 5 is the core of the paper: in section 5.1, I show that the phonological component distinguishes real copies from terms which happen to have the same set of features; in sections 5.2 and 5.3, I propose that deletion of chain links is triggered by linearization purposes; and in section 5.4, I propose that the choice of the links to be deleted is determined by economy considerations regarding the elimination of formal features in the phonological component. Section 6 pays closer attention to technical details regarding the elimination of [-interpretable] features of traces and the checking of [+interpretable] features in successive cyclic movement, and section 7 discusses some apparent counterexamples for the analysis proposed in section 5. Finally, a brief conclusion is presented in section 8.

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[2] For a discussion of other apparent differences between heads of chains and traces, see Nunes (1995).

2. The Problems

Any analysis assuming the copy theory of movement has to face two challenges: (i) Why is it the case that a nontrivial chain cannot have all of its links phonetically realized; that is, given the derivation involving the steps in (1) below before Spell-Out, why can the structure in (1c) not be realized as in (2c); and (ii) Why is it the case that traces and not heads of chains are the links which are deleted (cf. (2a) vs. (2b)).

(1) a. $[_{TP}$ T $[_{VP}$ was $[_{VP}$ kissed John]]]
b. COPY: $[_{TP}$ T $[_{VP}$ was $[_{VP}$ kissed John]]] John
c. MERGE: $[_{TP}$ John $[_{T'}$ T $[_{VP}$ was $[_{VP}$ kissed John]]]]

(2) a. John was kissed.
b. *Was kissed John.
c. *John was kissed John.

At first sight, the unacceptability of (2b) has an obvious explanation: the strong D-feature of T has not been checked (see Chomsky (1993, 1995:chap. 4)). Although this is a straightforward account of one potential derivation of (2b), it does not extend to the derivation outlined in (1). In (1), a copy of *John* merges with the structure in (1a), becoming the specifier of T and allowing the strong feature of T to be checked. Moreover, recall that elimination of copies presumably takes place in the phonological component, since they are available for interpretation at LF. Thus, if the copy of *John* in (1c) checks the strong feature of T before Spell-Out, the unacceptability of (2b) cannot be reduced to a problem of strong feature checking.

The unacceptability of the sentence (2c) resulting from the derivation in (1) raises an additional puzzle within the Minimalist framework. The derivations of (2a) and (2b) from (1c) involve an operation eliminating one of the copies of *John*, whereas no such operation is invoked in (2c). Thus, were the derivations of (2a) and (2b), on the one hand, and the derivation of (2c), on the other, to be compared for economy purposes, the derivation of (2c) should be preferred over the other two because it involves fewer operations, thus being more economical. Since (2c) is unacceptable, its derivation from (1c) must either crash or be canceled in the sense of Chomsky (1995:chap. 4), thereby being irrelevant for the computation of economy.[3]

Below I propose that the unacceptability of (2c) follows from the fact that the structure in (1c) cannot be linearized in accordance with Kayne's (1994) LCA. The contrast between (2a) and (2b) is then shown to follow from economy considerations concerning the elimination of formal features in the phonological component.

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[3] A derivation which satisfies Full Interpretation at a given syntactic level of representation is said to converge at that level, otherwise it is said to crash at that level; a derivation is said to be canceled if an illegitimate operation is performed during the computation, if the pair (LF object, PF object) is not formed, or if the numeration is not exhausted (see Chomsky (1995:219-220, 225-226)).

3. Deletion of Traces and Ellipsis

Chomsky (1993:35) suggests that deletion of traces in the phonological component is an obligatory variant of a more general process that converts the structure in (3a), for instance, into the sentence in (3b) in the phonological component, by deleting E.

(3) a. John said that he was looking for a cat, and so did Bill [$_E$ say that he was looking for a cat]
b. John said that he was looking for a cat, and so did Bill.

The main argument for (3a) to be transformationally related to (3b) is that both constructions are subject to a "parallelism constraint", which presumably holds at LF. However, such a derivational approach to the pair of sentences in (3) lacks some generality. As pointed out by Chomsky and Lasnik (1993:565), given the pair in (3), it is not clear why the sentences in (4), for instance, should not be derived from the structures in (5), which are however ill-formed.

(4) a. John said that he was looking for a cat, and Bill did too.
b. John likes poetry, but not Bill.

(5) a. *John said that he was looking for a cat, and Bill did [$_E$ say that he was looking for a cat] too
b. *John likes poetry, but not Bill [$_E$ likes poetry]

The derivational approach to (3) also requires unprecedented economy computations. Noting that the bracketed constituent in (3a) has a distinctive low-flat intonation, Chomsky and Lasnik (1993:564) propose that "the deletion rule (...) could say simply that material with this intonational property may optionally delete". Within the Minimalist framework, optionality must be due to the same derivational cost being ascribed to different options. However, deletion and lack of deletion clearly do not have the same derivational cost. Hence, Chomsky and Lasnik's proposal amounts to saying that at a certain point in the derivation, deletion is as costly as low-flat intonation. These options do not form a natural class, however. In the absence of independent evidence, it does not seem plausible to take deletion and low-flat intonation to be equally costly, if comparable at all.

Even disregarding these problems for a derivational relation between the sentences of (3), it is still likely that deletion of traces is unrelated to ellipsis. Traces are obligatorily deleted, as opposed to other potential "ellipsis material", which may be optionally deleted; a low-flat intonation of a trace does not make the pronunciation of the trace acceptable, as seen in (6b) below, with low-flat intonation on the trace of the subject. Notice that (6a) is a well-formed structure; it is the structure that yields the sentence in (6c) after the trace of the subject is deleted. Thus,

without an independent explanation for the ill-formedness of (6b) with low-flat intonation on the trace, Chomsky's (1993) proposal actually amounts to saying that deletion of traces and ellipsis are different phenomena.

(6) a. [that John said he was looking for a cat] is believed
[that John said he was looking for a cat] by everyone
b. *That John said he was looking for a cat is believed
that John said he was looking for a cat by everyone.
c. That John said he was looking for a cat is believed by everyone.

There is another reason not to take deletion of traces to be a subcase of ellipsis. Deletion of traces operates under strict identity, whereas this does need not be the case with ellipsis. Consider the initial numeration underlying (3a), represented in (7), and the initial numeration of (6a), represented in (8) (functional categories without phonological features are not represented).

(7) {$John_1$, $said_1$, $that_2$, he_2, was_2, $looking_2$, for_2, a_2, cat_2, and_1, so_1, did_1, $Bill_1$, say_1}

(8) {$that_1$, $John_1$, $said_1$, he_1, was_1, $looking_1$, for_1, a_1, cat_1, is_1, $believed_1$, by_1, $everyone_1$}

Whereas the repeated lexical items of (6a) are obtained by the copying operation and are nondistinct in the initial numeration, as shown in (8), the doubled lexical items of (3a) are distinct in the initial numeration, as shown in (7) (see section 5.1 for further discussion). Deletion of traces thus operates with elements that are not distinguished in the initial numeration, while the alleged deletion in the ellipsis structures such as (3) operates with elements that are morphologically identical but distinctively specified in the numeration (e.g., *John*), or even lexical items which are not identical at all (e.g., *say* is allegedly deleted in (3a) based on its relation to *said*).[4]

Chomsky (1995:252-253) takes the opposite view on the relation between ellipsis and deletion of traces, suggesting that ellipsis is a subcase of deletion of traces:

> At some point in the derivation [from (3a) to (3b); JMN], the bracketed element must be marked as "subject to parallelism interpretation." Assume that this takes place before Spell-Out [footnote omitted; JMN]. The marking could be the removal of the distinctions indicated by numeration, in which case the bracketed element is in a certain sense nondistinct from the phrase it "copies" (the latter still marked by the

[4] The unacceptability of (5b), for instance, taken as the derivational source for (4b), also shows that a derivational analysis of ellipsis cannot be based on strict identity (see Lasnik (1994) and Uriagereka (forthcoming:chap. 4) for relevant discussion).

> numeration). Such a configuration might be interpreted at PF as assigning a copy intonation to the bracketed expression, and at LF as imposing the parallelism interpretations (...). Suppose that numeration markings on the copy are changed to those of the first conjunct instead of being deleted. Then the antecedent and its copy are strictly identical and constitute a chain, if a chain is understood as (constructed from) a pair of terms (α_1, α_2) that are identical in constitution. It will follow, then, that the copy deletes, by whatever mechanism deletes traces in the phonological component. At LF the two kinds of constructions will be very similar, though not quite identical. (Chomsky 1995:252-253)

This suggestion attempts a unification of ellipsis and deletion of traces (although deletion of traces is still unexplained), but it ends up stressing their differences. First, ellipsis "chains" do not satisfy Last Resort or the c-command condition, which do apply to regular chains (see Chomsky 1995:chap. 4). Second, even if we assume that the operation which changes numeration markings to form ellipsis "chains" can be independently motivated, it is not obvious how this operation works in instances of ellipsis "chains" formed in discourse, as illustrated in (9).

(9) A: — John said that he was looking for a cat.
B: — So did Bill.

To summarize, the discussion above shows that: (i) a derivational approach to ellipsis constructions, relating (3b) to (3a), is problematic on several accounts; and (ii) even if these problems are overcome, it does not seem to be possible to subsume deletion of traces under ellipsis, nor does it seem to be possible to subsume ellipsis under deletion of traces.

4. Traces and the LCA

Breaking with a long tradition within generative grammar, Kayne (1994) makes the influential proposal that linear order is determined by hierarchical structure. More specifically, he proposes that the mapping from a phrase-marker onto a linear order of terminal symbols is governed by the Linear Correspondence Axiom (LCA) defined in (10) (from Kayne (1994:33)).

(10) *Linear Correspondence Axiom (LCA)*:
Let X, Y be nonterminals and x, y terminals such that X dominates x and Y dominates y. Then if X asymmetrically c-commands Y, x precedes y.

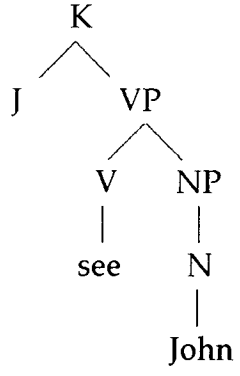
Assuming that Kayne's proposal is correct in its essentials, an interesting question arises: are traces computed for the purposes of linearization? The question is even more intriguing if one assumes that a trace is an exact copy of the moved element.

Kayne (1994) and Chomsky (1995) take the position that traces should be disregarded as far as linearization is concerned. Below I point out some problems for this assumption, delaying a full discussion of the issue until section 5.2, where I show that deletion of chain links is triggered by linearization considerations.

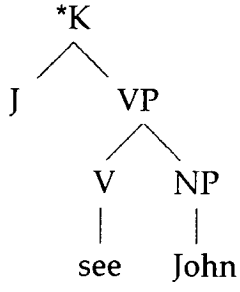
4.1. Kayne (1994)

Kayne (1994:10) briefly mentions the question of linearization of traces under the copy theory of movement when discussing the well-formedness of the phrase-marker in (11) below with respect to the LCA, as opposed to the one in (12). For Kayne, (11) is a well formed phrase-marker because V asymmetrically c-commands N and, therefore, *see* precedes *John*; in (12), on the other hand, V and NP c-command each other and, therefore, no linear order between *see* and *John* can be established.

(11)



(12)



Assuming the distinction between phrase-markers such as (11) and (12), Kayne considers two possibilities as to how structures containing traces comply with the LCA:

> The question arises of what happens if *John* (or any phrase) is moved. If the result of movement is that DP (or NP) dominates just a trace, then *see* and that trace will not be ordered at all with respect to one another, since the internal structure of DP (or NP), which ensured antisymmetry, will have been lost. This might conceivably be a tolerable consequence, since traces are in any event not visible. It is notable, though, that this question does not arise if movement transformations leave a copy, rather than

a trace. (Kayne 1994:chap. 2, fn. 3)

Kayne's suggestion that the "invisibility" of traces at PF exempts them from being subject to the LCA is indeed at odds with his conceptual argument that the LCA applies to all syntactic representations, including LF (see Kayne (1994:sec. 5.2)). Given the relevance of X'-Theory for, say, S-Structure and LF, and his claim that the LCA is the source of the major properties of standard X'-Theory, Kayne (p. 49) concludes that the LCA underlies the entire set of syntactic representations. This entails, however, that S-Structure and LF would not allow a structure containing a head and the trace of its complement, for instance, for the same reason a structure such as (12) should not be permitted: it violates the LCA.

On the other hand, as Kayne observes, there seems to be no problem under the copy theory of movement in linearizing a trace in complement position with respect to the head it is a sister of, provided that the trace has internal structure. In other words, traces do not differ from unmoved elements with respect to the well-formedness conditions on phrase-markers imposed by the LCA.

Although this approach solves the problem of the linearization between a head and the trace of a complement with internal structure, it faces some problems regarding the linearization of the links of a chain with respect to one another. In section 5 below, the issue of how nontrivial chains comply with the LCA is discussed in detail. For the purposes of this section, it suffices to note that if the links of a chain are in a sense the same element (they form a discontinuous object), some intervening material between two links of a given chain would asymmetrically c-command and be asymmetrically c-commanded by the same element. This state of affairs, however, is not compatible with the LCA and no linear order can obtain.

4.2. Chomsky (1995)

Chomsky (1995:337) suggests that "there is no reason for the LCA to order an element that will disappear at PF, for example, a trace".[5] Although this hypothesis makes the plausible assumption that the (still to be explained) deletion of traces takes place after Linearize, it tacitly assumes that the output of Linearize may be a nonlinearized (perhaps mixed) object. However, if the phonological rules which apply after Linearize operate with a sequence of X^0 elements rather than a phrase-structure, as seems plausible, no PF object would be formed if Linearize failed to yield a sequence of X^0 items and the derivation should be canceled.

Furthermore, the logic of Chomsky's suggestion confers too much power to global computations. The linearization of a given element at a given derivational

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[5] In Chomsky (1995:chap. 4), the term *LCA* is used to refer both to the Linear Correspondence Axiom and to the mapping operation that conforms to this axiom, as becomes clear when it is suggested that the LCA may delete traces (see Chomsky (1995:337)). I will avoid this ambiguity and use the term *Linearize* for the operation that maps a phrase-structure into a linear order of X^0 elements in accordance with the LCA.

step is taken to be contingent on different operations targeting that element later on in the derivation. For instance, if this logic were to extend to morphological operations, which are taken to precede Linearize (see Chomsky (1995:337)), we could ask why Morphology should not ignore traces, allowing contraction to proceed over them, given that they will be deleted later on in the derivation (after Linearize). Clearly, this would yield wrong results with respect to *wanna*-contraction over wh-traces, for instance.

Another suggestion by Chomsky (1994:28) is that the LCA may delete traces. This is intended to provide the bare X'-Theory system with means to circumvent the problem of linearizing the trace of a complement without internal structure with respect to the head it is a sister of. Notice, however, that there would be a redundancy under this approach: both Linearize and the phonological rules that apply to the output of Linearize can delete traces. In addition, although a motivation for the deletion of traces is provided when it is executed by Linearize, the motivation for the deletion after Linearize is still missing. The Minimalist assumption that the language faculty is an nonredundant system, however, would lead us to expect a unique motivation for deletion of traces and a unique operation to execute it.

5. Linearization of Nontrivial Chains

5.1. Nondistinctiveness

If the copy theory of movement is assumed, one needs to determine whether two elements with the same set of features are to be interpreted as distinct elements or as copies. Chomsky (1995:227) proposes that two lexical items l and l' should be marked as distinct for the computational system if they are formed by distinct applications of Select accessing the same lexical item of a numeration. Two occurrences of the pronoun *he*, for example, may have different properties at LF depending on whether they arose via two distinct applications of Select or via one application of Select and one application of Move.

Clearly, the notion of (non)distinctiveness of terms plays no role at the PF level and at the A-P interface.[6] Questions arise, however, about whether this notion is relevant for computations in the phonological component. If it can be shown that the phonological component operates with chains, we will have evidence that this component is sensitive to the (non)distinctiveness of terms. With this in mind, consider the structure in (13), which is built from a numeration with two instances of *John*, as indicated by the indices.

(13) $[_{TP}$ John$_i$ T $[_{vP}$ John$_i$ $[_{v'}$ said $[_{CP}$ that $[_{TP}$ John$_j$ was $[_{vP}$ kissed John$_j$ $]$ $]$ $]$ $]$ $]$ $]$

[6] The motivation for treating elements related by the Copy operation as nondistinct rather than identical has to do with feature checking, as will be discussed in section 5.4 below.

Let us assume for the sake of discussion that PF should in some way reflect the number of occurrences of each lexical item specified in the initial numeration of a given derivation. If deletion were sensitive only to the identity of the relevant sets of features, (13) could in principle surface as any of the sequences in (14), contrary to fact.

(14) a. John said that John was kissed.
b. *John John said that was kissed.
c. *John said that was kissed John.
d. *Said that John was kissed John.

The only possible PF output for the structure in (13) is the one in which the trace of each chain is deleted (cf. (14a)), showing that the phonological component applies the deletion operation (for reasons yet to be determined) to members of a chain and not simply to terms with identical sets of features. This in turn suggests that the phonological component takes (non)distinctiveness of terms into account when performing deletion.

Let us examine the consequences of this conclusion for linearization.

5.2. Nontrivial Chains and the LCA

Assuming that computations in the phonological component differentiate nondistinct terms (copies) from distinct terms which happen to have the same set of features, as seen in section 5.1, let us consider the asymmetric c-command relations in (15) to determine how this structure should be linearized according to the LCA.[7]

(15) $[_{TP}$ John$_i$ $[_{T'}$ was+T $[_{VP}$ kissed John$_i$ $]$ $]$ $]$

Under the assumption that the initial numeration corresponding to (15) contains a single instance of *John*, the two copies in (15) are nondistinct. Consider the relation between these copies and the copula *was*, for instance. Since the upper copy of *John* asymmetrically c-commands *was*, we should obtain the order <*John*, *was*>, according to the LCA; likewise, since the copula asymmetrically c-commands the lower copy of *John*, the order <*was*, *John*> should be derived. Combining these two results, we should obtain the partial sequence σ = <*John*, *was*, *John*>. Were the two instances of *John* distinct, σ would be a well-formed linear order, with the copula following an occurrence of *John* and preceding a different occurrence of *John*, like *said* preceding and being preceded by a distinct instance of *John* in (14a),

[7] I put aside the question of how two heads in a mutual c-command relation such as *kissed* and *John* in (15) can be linearized in compliance with the LCA (see Kayne (1994:10), Chomsky (1995:337)), which is orthogonal to the issue under discussion. Also orthogonal for the current purposes is how (10) should be revised in order to be compatible with bare X'-Theory (see Uriagereka (forthcoming), for relevant discussion).

for example. However, since the two instances of *John* in (15) are nondistinct, *was* should precede and be preceded by the same element, *John*. σ is therefore not a linear order because it lacks asymmetry (if α precedes β, then it must be the case that β does not precede α), which is a defining property of a (strict) linear order.

The structure in (15) also violates the irreflexivity condition on (strict) linear order (if α precedes β, then it must be the case that $\alpha \neq \beta$). Since the upper copy of *John* asymmetrically c-commands the lower one, the former should precede the latter in accordance with the LCA. Given that the two copies of *John* in (15) are nondistinct, that would amount to saying that *John* should precede itself.

Failure to yield a linear order thus provides a straightforward account for the fact that the structure in (15) cannot surface as the sentence in (16). To put it more generally, if the links of a chain count as nondistinct for linearization purposes in virtue of their being nondistinct in the initial numeration, we have an explanation for why a chain cannot surface at PF with more than one link overtly realized: the syntactic object containing such a chain cannot be linearized.[8]

(16) *John was kissed John.

Under the assumption that the rules of the phonological component which apply after Linearize operate on a sequence of X^0 elements, the attempted derivation of (16) from (15) is canceled, because Linearize yields no output and, therefore, no PF object can be formed (see fn. 3). This is a welcome result. Recall that the derivation of (16) from (15) should be prevented from being compared with the derivation of (17) below for purposes of economy even if they have the same reference set; otherwise, the derivation of (16), which employs no application of chain link deletion, would wrongly rule out the derivation of (17), which employs one application of chain link deletion (see section 2). If the derivation of (16) is canceled because it cannot be linearized, it cannot be compared with the derivation of (17), because only convergent derivations can be compared for economy purposes (see Chomsky (1995:chap. 4)).

(17) John was kissed.

I propose that deletion of chain links is thus required for a structure containing nontrivial chains to be linearized in accordance with the LCA. This

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[8] The unacceptability of the sentence in (ib), resulting from the structure in (ia), with two distinct instances of *John* has nothing to do with linearization. The ill-formedness of (ia) is presumably due to the fact that the lower instance of *John* cannot have its Case-feature checked (see section 6.1 for relevant discussion) or to the fact the upper instance of *John* does not receive a θ-role.

(i) a. $[_{TP}$ John$_i$ $[_{T'}$ was+T $[_{VP}$ kissed John$_j$ $]]]$
b. *John was kissed John.

proposal has the welcome conceptual advantage that it takes both heads of chains and traces to be subject to linearization (see section 4). As discussed in section 1, the null hypothesis in a Minimalist version of the copy theory of movement is that every chain link is subject to the same operations. What is required at this point is an independent motivation for why deletion targets traces and not heads of chains. This is the topic of section 5.4 below. Before beginning this discussion, let us first examine some general examples regarding the optimality of deletion for purposes of linearization.

5.3. Optimality of Deletion: Full vs. Scattered Deletion

Consider the simplified structure in (18) below, in which the embedded object DP raises to the matrix subject position, leaving two copies behind. As discussed above, a structure such as (18) cannot be linearized as is. The highest instance of *the tall man* asymmetrically c-commands the verb *appears*, for instance, which in turn asymmetrically c-commands the other two instances of *the tall man*. Given that these three copies are nondistinct, no linear order between *the tall man* and *appears* can be established in accordance with the LCA. Thus, if Linearize applies to (18), the derivation will be canceled, because Linearize will yield no output for further computations in the phonological component and no PF object will be formed.

(18) $[_{TP}\ [_{DP}$ the $[_{NP}$ tall man $]\ ]_i$ appears $[_{TP}\ [_{DP}$ the $[_{NP}$ tall man $]\ ]_i$ to have been kissed $[_{DP}$ the $[_{NP}$ tall man $]\ ]_i\ ]\ ]$

I have proposed in section 5.2 that deletion may allow a structure containing nontrivial chains to be linearized by eliminating "repeated" material which induces lack of asymmetry and irreflexivity in the intended linear order. Nothing that has been said so far, however, prevents deletion from applying within the different links of a chain, in what may be called "scattered deletion", deriving a structure such as (19a) from (18), for instance. Although the coindexed DPs in (18) are nondistinct, the terms which survive deletion in (19a) are distinct. (19a) should then be linearized in accordance with the LCA, yielding the sentence in (19b), which is however unacceptable.

(19) a. $[_{TP}\ [_{DP}$ the $]_i$ appears $[_{TP}\ [_{DP}$ tall $]_i$ to have been kissed $[_{DP}$ man $]_i\ ]\ ]$
b. *The appears tall to have been kissed man.

I propose that although the derivation of (19b) from the structure in (18) converges at PF, it is not the most economical derivation starting from (18). To put it more generally, scattered deletion is not an optimal derivation. Take (19a), for example, under the assumption that deletion for purposes of linearization only targets constituents (or terms in the sense of Chomsky (1995:247)). Assuming that the structure of *the tall man* is roughly as in (18), the derivation of (19a) from (18) requires that the deletion operation apply (at least) five times, targeting the

following constituents: the NP of the chain link in the matrix subject position, the constituents *the* and *man* of the link in the intermediate subject position, and the constituents *the* and *tall* of the link in the object position. Three other derivations starting from (18) which employ "full deletion" of chain links are more economical. If deletion targets the whole DP of two of the links of the DP chain in (18), the structures in (20) will be derived.

(20) a. $[_{TP}\ [_{DP}$ the $[_{NP}$ tall man $]\ ]_i$ appears $[_{TP}$ to have been kissed $]\ ]$
b. $[_{TP}$ appears $[_{TP}\ [_{DP}$ the $[_{NP}$ tall man $]\ ]_i$ to have been kissed $]\ ]$
c. $[_{TP}$ appears $[_{TP}$ to have been kissed $[_{DP}$ the $[_{NP}$ tall man $]\ ]_i\ ]\ ]$

Each structure of (20) can be linearized in accordance with the LCA, yielding the sentences in (21a)-(21c), respectively. Given that the derivation of any of the sentences in (21) employs only two applications of deletion, it blocks the derivation of (19b), which requires (at least) five applications of this operation.

(21) a. The tall man appears to have been kissed.
b. *Appears the tall man to have been kissed.
c. *Appears to have been kissed the tall man.

Under the assumption that deletion targets one term per application, economy considerations concerning the number of applications of the deletion operation block scattered deletion within chains in favor of full deletion of chain links. I refer to the operation of the phonological component which converts (18), for instance, into structures such as (19a) or (20) as *Chain Reduction*:

(22) *Chain Reduction*:
Delete the minimal number of terms of a nontrivial chain CH which suffices for CH to be mapped into a linear order in accordance with the LCA.

Notice that if Chain Reduction had deleted each of the three links of the DP-chain in (18), forming the object in (23a) below, the problem of lack of asymmetry and irreflexivity would be circumvented and (23a) could be linearized in accordance with the LCA, eventually yielding the sentence in (23b). The derivation of (23a) from (18), where the deleted material is nonrecoverable, is not optimal, however. Chain Reduction in this derivation employs (at least) three applications of deletion, when only two applications would suffice for the DP chain to be mapped into a linear order, as shown in (20). Therefore, recoverability of deletion of terms in the analysis explored here follows straightforwardly from economy considerations,

and nothing additional need be stated in the theory to ensure that it obtains.[9]

(23) a. [$_{TP}$ appears [$_{TP}$ to have been kissed]]
b. *Appears to have been kissed.

5.4. Deletion of Traces vs. Deletion of Heads of Chains

Chomsky (1995:chap. 4) has proposed that movement operations are triggered by the need to eliminate [-interpretable] features. Thus, checking operations render [-interpretable] features invisible at LF, eventually allowing the derivation to meet Full Interpretation and converge at this level; [+interpretable] features, on the other hand, are taken to be unaffected by checking operations, thereby being available for the interpretation they receive at the C-I interface.[10]

Let us now consider the role of formal features in the mapping from a given numeration to PF. It is very plausible that formal features are relevant for computations in the morphological subcomponent of the phonological component (see Chomsky (1995:229)). For instance, Morphology must ensure that phonological and Case-features are correctly paired; the phonological features of the pronoun *he*, for example, must be associated with nominative, and not with accusative Case. However, it is clear that formal features are not PF objects. Therefore, somewhere in the mapping from Spell-Out to PF, formal features must be eliminated; otherwise, Full Interpretation will not be met at PF.

Leaving the discussion of [+interpretable] features aside for the moment, let us focus on how the computational system eliminates [-interpretable] features in the course of the mapping from Spell-Out to PF. As mentioned above, a checking operation is taken to make a [-interpretable] feature invisible at LF. A natural extension of this assumption is to take checking operations to render [-interpretable] features invisible at PF as well, given that no formal feature is interpreted at the A-P interface.[11]

This extension of checking theory is however insufficient to ensure that legitimate PF objects are formed, because not all formal features are made invisible in the mapping from the numeration to PF by checking operations in the overt syntax. The structure in (24), for instance, is spelled out with the Case-feature of *a*

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[9] Actually, it is not necessary to specify that Chain Reduction deletes the smaller number of terms of a nontrivial chain CH (each application of deletion targeting a single term). Once it is postulated that Chain Reduction allows CH to be mapped into a linear order by having some of its terms deleted, economy considerations concerning the number of applications of the suboperation of deletion may independently determine the number of terms to be deleted. For purposes of exposition, I will however use the formulation of Chain Reduction given in (22).

[10] Chomsky's (1995:chap. 4) distinction between deletion and erasure is irrelevant for the present purposes. For conceptual and empirical arguments against this distinction, see Nunes (1995).

[11] This extension does not prevent checked [-interpretable] features from being active in the phonological component. They are invisible at both interface levels, but are accessible to the computational system (see Chomsky (1995:chap. 4) and Nunes (1995), for discussion).

problem, for instance, being unchecked and therefore still visible at PF.

(24) [there is [a problem]-CASE here]

Given that *a problem* is a trivial chain, one cannot resort to the deletion suboperation of Chain Reduction to eliminate this unchecked Case-feature. The phonological component must therefore resort to an additional operation obliterating unchecked formal features, in order for the derivation of (24) to satisfy Full Interpretation at PF. Furthermore, it is reasonable to assume that such an operation should follow Chain Reduction; otherwise it would be redundant in eliminating formal features of terms which would be deleted by Chain Reduction.

Consider the output of Linearize. It must involve a sequence of pairs $\sigma = <(F, P)_1, (F, P)_2, ..., (F, P)_n>$ such that F is a set of formal features and P is a set of phonological features. Let us then assume that the phonological component applies a rule such as (25) below to the output of Linearize, where deletion targets a single feature per application.[12]

(25) *Formal Feature Elimination (FF-Elimination)*:
Given the sequence of pairs $\sigma = <(F, P)_1, (F, P)_2, ..., (F, P)_n>$ such that σ is the output of Linearize, F is a set of formal features and P is a set of phonological features, delete the minimal number of features of each set of formal features in order for σ to satisfy Full Interpretation at PF.

Applied to the σ-sequence of (24), FF-Elimination deletes the unchecked Case-feature of *a problem*, allowing the derivation to eventually satisfy Full Interpretation and converge at PF. Let us now reconsider the derivation of (18), repeated below in (26) with the relevant Case-features represented. After being assembled and merged with the verb *kissed*, the DP *the tall man* raises to the Spec of each T head in order to check their strong D-features; in addition, the Case-feature of the topmost copy of *the tall man* enters into a checking relation with the Case-feature of the matrix T. Since Case is a [-interpretable] feature, this checking relation renders the Case-feature of the highest copy of *the tall man* invisible at LF and, according to the extension of the checking theory proposed above, invisible at PF as well. Departing from Chomsky (1995:chap. 4, fn. 12), let us assume that only the chain link that is in the checking domain of a given head H can be affected by a checking operation with H (see section 6.1 for further discussion). If so, the Case-features of the lower copies of *the tall man* in (26) are not affected by the Case-checking relation involving the highest copy. I will represent this state of affairs by

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[12] Similarly to the case of Chain Reduction (see fn. 9), the specification of the number of features to be deleted in the description of FF-Elimination in (25) may be taken to follow from economy considerations concerning the number of applications of the suboperation of deletion. As before, I keep the description as in (25) for expository purposes.

using subscripts to annotate checked features, as exemplified in (26).

(26) $[_{TP}\ [_{DP}$ the tall man $]_{i\text{-CASE}}$ appears $[_{TP}\ [_{DP}$ the tall man $]_{i}$-CASE to have been kissed $[_{DP}$ the tall man$]_{i}$-CASE $]\ ]$

This strongly derivational approach to the copy theory of movement thus requires that the notion of "sameness" relevant for chain formation be defined in terms of nondistinctiveness in the initial numeration, rather than identity (see fn. 6). Were the relevant notion of "sameness" defined in terms of identity, the topmost copy of *the tall man* in (26) could not form a chain with either of the other copies, because the Case checking relation it participated in would render it nonidentical with respect to the other copies.

Let us now see how the DP-chain of (26) is to be reduced. As discussed in section 5.3, the optimal reduction of this chain involves only two applications of deletion targeting any two of its links, as shown in (27):

(27) a. $[_{TP}\ [_{DP}$ the tall man $]_{i\text{-CASE}}$ appears $[_{TP}$ to have been kissed $]\ ]$
b. $[_{TP}$ appears $[_{TP}\ [_{DP}$ the tall man $]_{i}$-CASE to have been kissed $]\ ]$
c. $[_{TP}$ appears $[_{TP}$ to have been kissed $[_{DP}$ the tall man$]_{i}$-CASE $]\ ]$

If the DP-chain of (26) is reduced as in (27a), no application of FF-Elimination is required for Full Interpretation to be satisfied at PF, because the Case-feature of the copy that survives is checked and is therefore invisible at PF; the PF output in (28a) is then derived after further applications of phonological rules. By contrast, if the DP-chain is reduced as in (27b) or (27c), the convergent PF outputs in (28b) and (28c) are obtained only if FF-Elimination deletes the unchecked Case-feature of the copy that survives. The derivation in which the head of the chain survives Chain Reduction, such as (27a), is therefore more economical than derivations in which other links survive Chain Reduction, as in (27b) and (27c), because it requires fewer (if any) additional applications of FF-Elimination. The pattern of acceptability of (28) is correctly predicted.

(28) a. The tall man appears to have been kissed.
b. *Appears the tall man to have been kissed.
c. *Appears to have been kissed the tall man.

In Chomsky's (1995:chap. 4) system, it is stipulated that a trace is affected by the checking relation which the head of its chain participates in; this symmetric theory of checking relations involving chain links then has to be combined with the further stipulation that traces must be eliminated in the phonological component. The analysis developed here, on the other hand, derives the difference between heads of chains and traces regarding phonetic realization by pursuing the null hypothesis under the copy theory of movement: traces should have no inherent properties that would distinguish them from heads of chains. By keeping checking

configurations as simple as possible, i.e. by only allowing the elements in the checking domain of a given head H to enter into a checking relation with H, we obtain an asymmetry between heads of chains and traces. The asymmetry resulting from this strongly derivational version of the copy theory of movement in turn enables us to derive the fact that traces cannot be pronounced from economy considerations concerning the number of applications of FF-Elimination.

Consider now the structures of the sentences in (29a-b), provided in (30a-b), respectively. In (30a), *John* moves from the Spec of the embedded light verb to check the strong D-feature of the infinitival T head, whereas in (30b) *what* moves from the object position to check the strong wh-feature of the null interrogative complementizer (see Chomsky (1995:chap. 4)).[13]

(29) a. I expected John to call me.
b. What did you buy?

(30) a. $[_{TP}$ I expected $[_{TP}$ John$_i$ to $[_{vP}$ John$_i$ $[_{v'}$ call me]]]]
b. $[_{CP}$ what$_i$ did+Q $[_{TP}$ you buy what$_i$]]

In both chains of (30), it is the categorial feature (a [+interpretable] feature) of the moved element which enters into a checking relation with a [-interpretable] feature of the target. If [+interpretable] features remained unaffected by checking operations, as proposed by Chomsky (1995:chap. 4), the chain links of (30a) and (30b) would be identical with respect to the only checking relation that takes place overtly and would provide no way to account for why Chain Reduction deletes the lower copies.

I proposed above that if a [-interpretable] feature is checked, it is made invisible at both interface levels. Given that no formal feature is assigned an interpretation by the A-P system, this view of checking relations can be generalized by assuming that a checking operation renders a given feature F invisible at the level at which it would induce a Full Interpretation violation. In other words, a checking operation may render F invisible at PF, regardless of the interpretability of F at the C-I interface. A checked [-interpretable] feature will then be invisible at both PF and LF, whereas a checked [+interpretable] feature will be invisible at PF, but visible at LF.[14]

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[13] It is irrelevant for the current discussion whether *John* in (29a) is checking a strong N-feature of T or whether a null determiner associated with *John* is checking a strong D-feature of T. For purposes of exposition, I will assume that *John* has a D-feature which enters into a checking relation with the strong D-feature of T.

[14] One wonders whether Chomsky's (1995) original proposal concerning the relation between interpretability and deletability as well as the extension of this approach proposed in the text can do without global computations. As informally presented in the text, it appears that the computational system can decide on whether or not to delete a checked feature only after "looking ahead" at LF. This is not necessarily the case, however. If the set of formal features of any given lexical item is actually comprised of a subset of [+interpretable] features and a subset of [-interpretable] features, the

Under this revised extension of checking theory, the appropriate representation of the sentences in (29) in the phonological component is as in (31), where the subscript convention for features is now generalized to mean 'invisible at the relevant interface':

(31) a. $[_{TP}$ I expected $[_{TP}$ John$_i$-D to $[_{vP}$ John$_i$-D $[_{v'}$ call me]]]]
b. $[_{CP}$ what$_i$-WH did+Q $[_{TP}$ you buy what$_i$-WH]]

When applied to the chains of (31), Chain Reduction can in principle delete either link of the chains CH_1 = (John$_i$-D, John$_i$-D) and CH_2 = (what$_i$-WH, what$_i$-WH). If it deletes the upper link of either chain, FF-Elimination will be required to delete the unchecked D-feature and wh-feature, respectively; if Chain Reduction deletes the lower links, no application of FF-Elimination is required because the D-feature and the wh-feature of the upper links are checked and therefore invisible at PF. Again, the optimal derivation is the one in which Chain Reduction deletes every chain link except the head of the chain.

7. Some Technical Details Reconsidered

7.1. [-interpretable] Features of Traces and Full Interpretation at LF

In pre-Minimalism versions of the Principles and Parameters Theory, A-chains were subject to the Chain Condition (see and Chomsky and Lasnik (1993:523-524)), according to which every argument chain must be headed by a Case-marked position and must terminate in a θ-position. If every movement operation forms a new chain, a problem for the Chain Condition is raised by constructions involving successive NP raising such as the one illustrated in (32) below, with indices taken to indicate different positions. The question is how each of the chains in (33), which are formed by raising *John* in (32), satisfies the Chain Condition. The chain CH_2 in (33), for instance, does not satisfy either of the requirements of the Chain Condition. Chomsky and Lasnik (1993:563) propose that in cases of successive cyclic movement, the Chain Condition should hold of the *linked chain*, which is the chain formed by linking two chains CH_1 and CH_2, where the tail of CH_1 is the head of CH_2. According to this proposal, although the chains CH_1, CH_2 and CH_3 in (33) do not satisfy the Chain Condition, the linked chain CH_4 = ($John_4$, $John_3$, $John_2$, $John_1$) obtained by linking CH_1, CH_2 and CH_3 does.

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computational system is able to determine at any derivational point whether a given feature can or cannot be deleted after being checked. The principle of recoverability of deletion under this view can be derived from economy considerations: a derivation which converges without deleting a given [+interpretable] feature for purposes of interpretation at LF will always outrank a competing derivation which does so. For concreteness, I will be assuming in the following discussion that the interpretability of a given feature is lexically encoded, as suggested above.

(32) [$John_4$ seems [$John_3$ to be likely [$John_2$ to [be kissed $John_1$]]]]

(33) a. $CH_1 = (John_2, John_1)$
b. $CH_2 = (John_3, John_2)$
c. $CH_3 = (John_4, John_3)$

In the system proposed in Chomsky (1995:chap. 4), the problems posed by successive A-movement arise with respect to both the Chain Condition, which Chomsky (1995:300) incorporates into the Minimalist framework, and Full Interpretation. Once the copy theory of movement is assumed, it must be ensured that in a convergent derivation, no "traces" have [-interpretable] features. In order to account for successive A-movement, Chomsky (1995:300) then assumes that the tail of a chain formed by raising the head of a nontrivial chain CH = (α, t) is the trace t rather than α. According to this assumption, the chains formed by raising *John* in (32) are the ones given in (34) below, rather than the ones in (33).

(34) a. $CH_1 = (John_2, John_1)$
b. $CH_2 = (John_3, John_1)$
c. $CH_3 = (John_4, John_1)$

Under the assumption that "the features of a chain are considered a unit: if one is affected by an operation, all are" (see Chomsky (1995:chap. 4, fn. 12)),[15] only CH_3 in (34) satisfies the Chain Condition and has checked its Case-feature; the other two chains, on the other hand, violate the Chain Condition and their unchecked Case-features should induce a violation of Full Interpretation at LF. In order to prevent these results, Chomsky (1995:301) admittedly stipulates that if α heading the chain CH = (α, t) raises, the formal features of the trace created by this operation are deleted and erased (see fn. 10). Intermediate traces are thus invisible at LF and the only chain subject to interpretation is the pair (α, t), where α is in the highest position of raising and t is in the position of lexical insertion.[16] Furthermore, noting that in instances such as (35), the formal features of the trace of wh-movement may be required for further checking relations, Chomsky (1995:303) restricts to cases of A-movement the stipulation that the formal features of traces must be eliminated.

(35) a. [$what_i$ did John see t_i]
b. [guess [$what_i$ [there is t_i in the room]]]

Let us consider an alternative approach to these issues. In order for Full

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[15] See also Hornstein's (1995) All For One Principle.

[16] Erasure of the formal features of an intermediate trace t of an argument allegedly renders t unable to enter into checking relations or induce Minimal Link Condition violations (see Chomsky (1995:301)). For problems with this approach, see Nunes (1995).

Interpretation to be satisfied, all that is required as far as chains are concerned is that the [-interpretable] features of their links be invisible at LF. In principle, the same reasons which led Chomsky (1995:chap. 4, fn. 75) not to eliminate the semantic features of intermediate traces should also prevent the elimination of their [+interpretable] formal features. Suppose then that at LF, all links of a chain must be uniform in terms of feature composition, as stated in (36):

(36) *Feature Uniformity Condition*:
Given a chain CH = $(\alpha_1, ..., \alpha_n)$, every α_i $(1 \geq i \geq n)$ must have the same set of features visible at LF.

Let us reconsider the chain CH = (*John, John*) of the structure in (15) repeated below in (37), under the assumption that traces are unaffected by the operations affecting heads of chains (see section 5.4). In the covert component, both links of CH have the same semantic features and no phonological features. They differ, however, with respect to formal features: the lower link has categorial, Case- and ϕ-features visible, whereas the upper link only has categorial and ϕ-features visible, because its Case-feature was made invisible by the checking operation it participated in. As it stands, the chain CH in (37) violates the Feature Uniformity Condition.

(37) [$John_i$ T [was kissed $John_i$]]

There are two possible ways for the chain in (37) to become uniform: either the head of the chain somehow "gains" an unchecked Case-feature, or the Case-feature of the trace is eliminated. The first possibility can be easily discarded. Besides being noninclusive (see section 1), gaining a [-interpretable] feature is at odds with one of the main purposes of the mapping from a numeration to LF, which is to eliminate [-interpretable] features. We can formalize the second possibility along the lines of (38), where deletion targets a single feature per application.

(38) *Chain Uniformization*:
Delete the minimal number of features of a nontrivial chain CH in order to allow its links to satisfy the Feature Uniformity Condition.

If Chain Uniformization deletes the Case-feature of the tail of the chain CH = (*John, John*) in (37), CH complies with the Feature Uniformity Condition. Furthermore, since no [-interpretable] feature survives at LF, Full Interpretation is satisfied and the derivation converges. Notice that if Chain Uniformization had deleted all the semantic features of CH in addition to the unchecked Case-feature, for instance, CH would also satisfy the Feature Uniformity Condition. This undesirable result does not arise, however, because, as stated in (38), Chain Uniformization resorts to the fewest possible applications of deletion. If a single application of deletion allows CH to comply with Full Interpretation, economy

considerations block further applications.[17]

Let us now reconsider the chain CH_4 = (*John*$_4$, *John*$_3$, *John*$_2$, *John*$_1$) of (32), assuming Chomsky and Lasnik's (1993:563) notion of linked chain. The links of CH_4 differ in that the head of the chain does not have a Case-feature visible at LF, whereas the other three links do. Thus, in order for CH_4 to satisfy the Feature Uniformity Condition, Chain Uniformization employs three applications of deletion, each targeting an unchecked Case-feature. After these operations, CH_4 satisfies not only the Feature Uniformity Condition, but also Full Interpretation, because no [-interpretable] feature is visible at LF; hence, the derivation in (32) converges at LF.

Consider now the chain CH = (*Bill*, *Bill*) in (39b). In this instance, both links have the same feature composition at LF. The D-feature of the upper copy enters into a checking relation with the infinitival T, but since this feature remains unaffected by the checking operation for purposes of LF interpretation (see section 5.4), the two copies remain identical at LF. Although satisfying the Feature Uniformity Condition, this derivation does not satisfy Full Interpretation and crashes at LF, because both copies in (39b) have an unchecked Case-feature.

(39) a. *It was believed Bill to be often kissed.
b. [it was believed [Bill to [be often kissed Bill]]

If Chain Uniformization had deleted the unchecked Case-features of CH, the Feature Uniformity Condition would also be satisfied, but the derivation in (39b) would be incorrectly allowed to converge, because Full Interpretation would be met. Again, this incorrect result does not arise, because Chain Uniformization does not apply to chains which are already uniform with respect to feature composition. The important thing to keep in mind is that, as stated in (38), deletion of ([-interpretable]) features is triggered by the Feature Uniformity Condition, not by Full Interpretation at LF. This is a natural assumption to make: if Full Interpretation at LF could trigger deletion of [-interpretable] features, no movement operation would ever be necessary.

The approach outlined above has several advantages over the one proposed by Chomsky (1995:chap. 4). First, it attempts to follow Minimalist guidelines as closely as possible by deriving the elimination of [-interpretable] features of traces from Full Interpretation and some plausible conjectures about the feature composition of chains. Hence, no stipulation requiring the elimination of [+interpretable] features of intermediate traces is resorted to. This in turn has the welcome result of being consistent with the role that intermediate traces seem to

[17] As before (see fn. 9 and 12), it is not actually necessary to specify that Chain Uniformization deletes as few features as possible. We may simply specify that Chain Uniformization deletes features in order for the Feature Uniformity Condition to be complied with (each application of deletion targeting a single feature), and leave the number of features to be deleted to be established by economy considerations concerning the number of applications of the suboperation of deletion.

play in the computation of binding and scope (see Barss (1986), Aoun and Li (1993), Lebeaux (1991), and Hornstein (1995), among others). Second, the approach pursued here does not rely on the Chain Condition, which is restricted to A-chains and is largely redundant with Last Resort if, as proposed by Chomsky (1995:312), the positions where feature checking and θ-role assignment take place are in complementary distribution.

One question remains to be addressed. I have been tacitly assuming that Chain Uniformization applies in the covert component. However, given that the uniformity condition on the mapping from a given numeration to LF makes the same set of operations available in overt syntax and in the covert component (see Chomsky (1995:chap. 4)), one wonders whether Chain Uniformization could apply to the chain of (40), for instance, before Spell-Out. If that were possible, it would enable the DP-chain to satisfy Full Interpretation at both LF and PF without any other operation eliminating the unchecked Case-features, and there would be no basis for the trace to be deleted in the phonological component instead of the head of the chain.

(40) [John-$_{CASE}$ [was [kissed John-CASE]]]

I propose that although available throughout the mapping from a given numeration to LF, Chain Uniformization is prevented from applying overtly by economy considerations. According to Chomsky (1995:226), operations of the computational system which are necessary for a derivation to be generated are costless, whereas operations which are related to convergence conditions are costly. Assuming this to be correct, consider a derivational step after all the strong features have been checked. The computational system may apply Chain Uniformization to the chains formed overtly or after Spell-Out. Since Spell-Out is required for a derivation to be generated, it is costless, therefore being more economical than Chain Uniformization, which is an operation related to a convergence condition (the Feature Uniformity Condition). Thus, since the structure in (40) is spelled out without the DP chain being uniformized, economy considerations concerning the number of applications of FF-Elimination mandate that the lower copy be deleted for purposes of linearization (see section 5.4).

7.2. [+interpretable] Features and Successive Cyclic Movement

An apparent problem for the extension of checking theory proposed in section 5.4 is presented by instances of successive raising such as (41), roughly represented in (42).[18]

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[18] Instances of successive cyclic movement of wh-phrases such as the one illustrated in (i) also pose the same type of problem and presumably are subject to the same analysis I develop in this section. I will focus the discussion on A-movement, because successive cyclic wh-movement presents the additional problem of how to characterize the checking relation of a declarative complementizer and

(41) I believe John to be likely to be kissed.

(42) [$_{TP}$ I believe [$_{TP}$ John$_i$ to be likely [$_{TP}$ John$_i$ to [$_{\nu P}$ be kissed John$_i$]]]]

Let us examine the derivation of (42) stepwise. A copy of the most embedded object *John* is made and merges with the most embedded TP; its D-feature then enters into a checking relation with the T head. Suppose that, as proposed in section 5.4, this checking relation renders the categorial feature of *John* invisible at PF, yielding (43a). After the structure in (43b) is assembled, the higher T head must also have its strong D-feature checked. Suppose further that the embedded subject then raises and merges with the structure in (43b), as represented in (44) before any checking operation proceeds.[19]

(43) a. [$_{TP}$ John$_i$-$_D$ to [$_{\nu P}$ be kissed John$_i$-D]]
b. [$_{TP}$ to be likely [$_{TP}$ John$_i$-$_D$ to [$_{\nu P}$ be kissed John$_i$-D]]]

(44) [$_{TP}$ John$_i$-$_D$ to be likely [$_{TP}$ John$_i$-$_D$ to [$_{\nu P}$ be kissed John$_i$-D]]]

If the higher T head in (44) could be checked by a copy of the embedded subject despite the fact that the categorial feature of that instance of *John* has already been checked with respect to PF, the eventual linked chain CH = (*John*-$_D$, *John*-$_D$, *John-D*) will remain as in (44) after the higher T has its strong feature checked. After the structure in (45) is finally assembled and spelled out, CH should in principle be reduced as (46a), (46b), or (46c).

(45) [$_{TP}$ I believe [$_{TP}$ John$_i$-$_D$ to be likely [$_{TP}$ John$_i$-$_D$ to [$_{\nu P}$ be kissed John$_i$-D]]]]

(46) a. [$_{TP}$ I believe [$_{TP}$ to be likely [$_{TP}$ to [$_{\nu P}$ be kissed John$_i$-D]]]]
b. [$_{TP}$ I believe [$_{TP}$ to be likely [$_{TP}$ John$_i$-$_D$ to [$_{\nu P}$ be kissed]]]]
c. [$_{TP}$ I believe [$_{TP}$ John$_i$-D to be likely [$_{TP}$ to [$_{\nu P}$ be kissed]]]]

(46a) is more costly than the other two possibilities because it still requires that the D-feature of the copy that survives be deleted by FF-Elimination; hence the unacceptability of (47a). In turn, since (46b) are (46c) are equally costly, the analysis

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the trace of a wh-phrase in its Spec.

(i) [$_{CP}$ [which picture of himself] did John say [$_{CP}$ [which picture of himself] that Mary like [which picture of himself]]]

[19] I assume that the Minimal Link Condition prevents the embedded object from raising over the embedded subject in (43b). See Nunes (1995) for a detailed discussion of this issue.

developed here predicts that the sentences derived by these possibilities are both acceptable. As shown in (47b) and (47c), this prediction is incorrect.

(47) a. *I believe to be likely to be kissed John.
b. *I believe to be likely John to be kissed.
c. I believe John to be likely to be kissed.

Recall that the gist of Chomsky's (1995:chap. 4) proposal concerning the relation between interpretability and accessibility to the computational system is that if a [-interpretable] feature F is made invisible at LF by a checking operation, F cannot enter into further checking relations. Under the generalized version of checking theory proposed in section 5.4, Chomsky's proposal can be naturally extended to checking operations which render a given feature invisible at PF as well. Put simply, a feature which has been made invisible at either interface level by a checking operation cannot participate in any further checking relation.

If this is so, there is no grammatical output for the mapping from (44) to (45), where the topmost instance of *John* is a copy of the intermediate one. Since the topmost copy has its D-feature rendered invisible at PF by a previous checking operation, it cannot check the strong D-feature of the T head of the intermediate clause. Given that the topmost copy of *John* enters into no checking relation with the T head, Last Resort is violated and the derivation is canceled.

Chomsky's (1995:280) proposal that a [+interpretable] feature remains unaffected by a checking operation and is able to participate in multiple checking relations can be reinterpreted in the system I am proposing here in the following way. When participating in an overt checking relation, a [+interpretable] feature can optionally be checked with respect to PF, becoming invisible at this level. If it is checked, it patterns with checked [-interpretable] features in not being able to enter into any further checking relation; if it remains unchecked with respect to PF, it is allowed to enter into another checking relation. Since formal features (regardless of their interpretability at the C-I interface) must be eliminated in the mapping from a given numeration to PF in order for the derivation to converge at PF, economy considerations dictate that two elements in an overt checking relation should have the greatest number of features checked with respect to PF (up to convergence). In other words, checking with respect to PF allows the number of applications of FF-Elimination targeting unchecked features to be minimized.

Thus, movement of the object to the Spec of TP to check the strong D-feature of T in (48) below also allows the moved element to have its D-feature checked with respect to PF, as illustrated in (49). Whether or not this extra checking operation will yield a convergent derivation depends on the kind of structure in which (49) is embedded. If (49) is embedded in a structure which requires no further copies of *John*, as in (50), checking the phonological part of the D-feature in the checking domain of the infinitival T is not only allowed, but is actually forced by economy considerations. As discussed in section 5.4, the optimal PF realization of (50) will then be the one resulting from the deletion of the trace of the DP-chain by Chain

Reduction, as shown in (51).

(48) $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]

(49) $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]

(50) $[_{TP}$ I expected $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]

(51) I expected John to be kissed.

By contrast, if (49) is embedded in a structure which requires that further copies of *John* be created such as (40b), repeated below in (52a), no convergent derivation is possible; movement of the embedded subject, as represented in (52b), does not license any checking relation and Last Resort is violated.

(52) a. $[_{TP}$ to be likely $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]]
b. $[_{TP}$ John$_i$-D to be likely $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]]

Therefore, in a convergent derivation of successive cyclic movement, the [+interpretable] feature which enters into multiple checking relations must not be checked with respect to PF in intermediate positions. Rather than (52b), the computational system must have therefore assembled the structure in (53) below. Again, whether or not the D-feature of the highest copy of *John* in (53) can be checked depends on the type of structure (53) merges with. As before, if (53) is embedded in a structure such as the one in (54), the checking of this feature is forced by economy considerations. Economy considerations concerning the application of FF-Elimination in the phonological component (see section 5.4) then select the derivation in which Chain Reduction deletes the traces of the linked chain CH = (*John$_i$-D, John$_i$-D, John$_i$-D*) in (54), yielding the sentence in (55).

(53) $[_{TP}$ John$_i$-D to be likely $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]]

(54) $[_{TP}$ I expected $[_{TP}$ John$_i$-D to be likely $[_{TP}$ John$_i$-D to $[_{vP'}$ be kissed John$_i$-D]]]]

(55) I expect John to be likely to be kissed.

7. Some Apparent Counterexamples[20]

7.1. Wh-Copying

Some languages appear to allow traces of wh-phrases to be phonetically realized. The sentences in (56)-(60) exemplify such phenomenon:[21]

Afrikaans (from du Plessis (1977)):

(56) *Met wie* het jy nou weer gesê *met wie* het Sarie
with who did you now again said with who did Sarie
gedog *met wie* gaan Jan trou?
thought with who go Jan marry
'Whom did you say (again) that Sarie thought Jan is going to marry?'

Frisian (from Hiemstra (1986)):

(57) *Wa* tinke jo *wa't* ik sjoen haw
who think you who-that I seen have
'Who do you think that I have seen?'

German (from McDaniel (1986)):

(58) *Mit wem* glaubst du *mit wem* Hans spricht?
with whom think you with whom Hans talks
'With whom do you think Hans is talking?'

Romani (from McDaniel (1986))

(59) *Kas* misline *kas* o Demìri dikhlâ?
Whom you-think whom Demir saw
'Who do you think Demir saw?'

English child grammar (from Thornton (1990))

(60) Who do you think really who's in the can? (Tiffany 4;9)

If the terms with the same set of phonological features of the sentences above were related by a Copy operation, thus being nondistinct, they should induce violations of the irreflexivity and asymmetry conditions on linear order, canceling the derivation. If so, the acceptability of the sentences in (56)-(60) would be unaccounted for. The data above can however be compatible with the proposal about linearization of chains developed in this chapter, if the "repeated" elements in (56)-(60) are already present in the initial numeration, counting as distinct for

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[20] Special thanks to Valentina Bianchi, Mirta Groppi, Eva Schlachter, and Raffaella Zanuttini, for discussion of relevant data.

[21] I would like to thank Ger de Haan, Richard Kayne, Ana Perez-Leroux, and Craig Thiersch, for bringing some of the references on this subject to my attention. I would also like to thank Rozz Thornton for having clarified some points about the children's data discussed below.

purposes of linearization. Although a careful analysis of these constructions goes beyond the scope of this paper, two pieces of evidence suggest that the identical terms in (56)-(60) have not been related by the Copy operation.

The first piece of evidence concerns the generality of this pseudo-copying phenomenon. If the languages above allowed instances of phonetically realized traces, we should expect the traces of complex wh-phrases to be phonetically realized as well. As illustrated in (61) and (62) below, this is not the case, however. This pseudo-copying in general involves a single wh-word or (in some languages) a preposition plus a wh-word. This appears to suggest that the "repeated" terms in (133)-(60) are present in the initial numeration and encode some sort of wh-agreement, rather than being introduced into the derivation by the Copy operation and forming a chain with nondistinct elements.

German (from McDaniel (1986)):

(61) **Wessen Buch* glaubst du *wessen Buch* Hans list?
whose book think you whose book Hans reads
'Whose book do you think Hans is reading?'

Romani (from McDaniel (1986)):

(62) * *Save chave* mislinea *save chave* o Demìri dikhlâ?
which boy you-think which boy Demir saw
'Which boy do you think Demir saw?'

The second piece of evidence comes from the fact that in some cases the apparent phonetically realized traces may actually have a different phonetic form. In German, for instance, the apparent wh-trace can be either the interrogative pronoun, as in (58), or the relative pronoun, as shown in (63) (see McDaniel (1986:125)).

German (from McDaniel (1986)):

(63) *Mit wem* glaubst du *mit dem* Hans spricht?
with whom think you with whom Hans talks
'With whom do you think Hans is talking?'

A comparable state of affairs is found in Afrikaans. As shown in (64) below, a wh-word plus a pied-piped preposition can be replaced by a compound (see du Plessis (1977:724)). What is interesting for our purposes is that in a sentence such as (65), the lowest Spec of CP is occupied by either the compound form *waar* or the basic form *wat*, whereas the two upper Specs of CP are filled with the full compound form *waaroor*.

Afrikaans (from du Plessis (1977)):

(64) a. *Vir wat* werk ons nou eintlik?
for what work we now actually
'For what do we actually work?'
b. *Waarvoor* werk ons now eintlik?
wherefore work we now actually
'For what do we actually work?'

Afrikaans (from du Plessis (1977)):

(65) *Waaroor* dink jy *waaroor* dink diebure
whereabout think you whereabout think the neighbors
*wat/warr*stry ons die meeste *oor*?
what argue we the most about
'What do you think the neighbors think we are arguing about the most?'

The data in (63) and (65) show that at least for certain cases, this pseudo-copying phenomenon must be analyzed as involving different lexical items in the numeration. Given the idiosyncratic nature of this phenomenon, as discussed above, this conclusion can be generalized and we may take the "repeated" lexical elements in the data above to all be distinct in the initial numeration. If only one of these apparent copies is the "real" wh-phrase which has been moved, the other ones might be encoding some sort of wh-agreement. The fact that most of the times the wh-phrases are identical can be a reflex of the fact that agreeing forms generally share some common morphology.[22]

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[22] Similar reasoning extends to instances of auxiliary doubling in English child grammar, as illustrated in (i) (from Guasti, Thornton, and Wexler (1995)). Rather than treating the lower auxiliary as a phonetically realized trace of the upper auxiliary, we may analyze the two instances as present in the initial numeration. It is plausible, for instance, that children are analyzing *didn't, don't*, and *couldn't* in (i) as distinct lexical items rather than contracted forms. At any rate, children also produce instances where the "copies" are clearly distinct, as shown in (ii) (from Guasti, Thornton, and Wexler (1995)).

(i) a. What *did* he *did*n't wanna bring to school? (Darrell 4;1)
b. What kind of bread *do* you *do*n't like? (Rosy 3; 10)
c. Why *could* Snoopy *could*n't fit in the boat? (Kathy 4;0)

(ii) a. What *did*n't Miss Piggy *do*n't like to do? (Matt 4;3)
b. What *do* you *can*'t eat?

7.2. Clitic Reduplication

Some languages allow instances of clitic reduplication, which appear to suggest that the trace of the moved clitic may be overtly realized.[23] The sentence in (66) below, which is acceptable in some dialects of Chilean Spanish (see Silva-Corvalán (1989)), exemplifies this phenomenon.

Chilean Spanish (from Silva-Corvalán (1989))

(66) Yo *lo* iba a matar*lo*.
I it was-going to kill-it
'I was going to kill it.'

If the second instance of *lo* in (66) were a copy of the upper instance, i.e. there is only one instance of *lo* in the initial numeration of the derivation of (66), the two nondistinct instances of the clitic should in principle yield violations of the irreflexivity and asymmetry conditions on linear order. There is reason to believe that the two instances of the clitic in (66) do not arise through movement, however. Were the lower instance of the clitic a phonetically realized trace, we should expect clitic reduplication to be parallel to regular instances of clitic movement in being subject to the same restrictions on clitic movement. As pointed out to me by Héctor Campos (p.c.), this is not the case. Contexts where clitic climbing is not possible may allow clitic reduplication, as shown in (67).

Chilean Spanish:

(67) a. *Lo odio hacer.
it I-hate do-INF
'I hate to do it.'

b. *Lo* odio hacer*lo*.
it I-hate do-INF-it
'I hate to do it.'

It is reasonable to assume that it is irrelevant for the conditions governing chain formation before Spell-Out whether or not the nondistinct copies which are to form a chain will be deleted later on in the phonological component. If so, there should be no difference between the chain formed between the clitic and its trace in (67a) and between the apparent copies in (67b). The contrast in (67) thus suggests that (67b) does not involve an instance of clitic climbing with the trace being spelled out; rather it is probably the case that the upper instance of the clitic in (66) and (67b) is an agreement morpheme of the upper verb.

Here I will not attempt to provide an analysis of the licensing conditions on this type of agreement or the interesting dialectal variation concerning clitic

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[23] I would like to thank Richard Kayne for bringing this type of construction to my attention.

reduplication found in South American Spanish.[24] For our purposes, suffice it to note that once clitic reduplication does not go hand in hand with clear instances of clitic movement, multiple instances of identical clitics do not seem amenable to being analyzed as phonetically realized traces.

6. Conclusion

In this paper I have argued in favor of the null hypothesis concerning the copy theory of movement in the Minimalist Program, namely, that traces and heads of chains do not have distinct intrinsic properties. I have proposed that the differences between traces and heads of chains arise in the course of the derivation due to the fact that checking operations work very locally; a given head H can only enter into a checking relation with a chain link which is in its checking domain.

The reason why traces are not phonetically realized follows from the interaction of (i) the fact that every chain link is computed for purposes of linearization; and (ii) economy considerations concerning the number of applications of deletion to eliminate unchecked formal features in the phonological component (the FF-Elimination operation). In other words, a syntactic object containing a nontrivial chain CH cannot be linearized in accordance with the LCA; since the links of CH are nondistinct, they induce violations of the asymmetry and irreflexivity conditions on linear order, canceling the derivation because no PF object can be formed. In order to prevent this state of affairs, the phonological component resorts to the operation Chain Reduction, which deletes all but one link of a nontrivial chain.

In order for Full Interpretation to be satisfied at PF, FF-Elimination must then delete the unchecked formal features (if any) of the link that survives Chain Reduction. Since a given head only checks the relevant features of the chain link that is in its checking domain, the head of a chain CH will always have fewer unchecked formal features (if any) to be deleted by FF-Elimination than the lower links of CH. Thus, a derivation in which Chain Reduction deletes all the links except the head of the chain is always more economical than a derivation in which Chain Reduction deletes all of the links of the chain except one trace; the derivation in which the head of the chain survives Chain Reduction requires fewer (if any) applications of FF-Elimination than the derivation in which a trace survives.

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[24] I would like to thank Mirta Groppi, Héctor Campos, Marcela Depiante, and Beatriz Galdieri for helpful discussion about clitic reduplication in their dialects.

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LINEARIZATION OF NON-TRIVIAL CHAINS AT PF*

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In his *Minimalist Program for Linguistic Theory*, Chomsky (1993) adopts the "copy theory" of movement, according to which:

> the trace left behind is a copy of the moved element, deleted by a principle of the PF component in the case of overt movement. But at LF, the copy remains, providing the materials for "reconstruction". (Chomsky 1993:35)

Under this view, a simplified input to the PF component such as (1a), for instance, with the object NP moving to the subject position and leaving a copy behind, yields the surface sentence in (1c), and not the one in (1b).

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(1) a. Input to PF: [$_{IP}$ John [$_{VP}$ was arrested John]]
b. PF output: *John was arrested John.
c. PF output: John was arrested.

It is interesting to note that it is not obvious how to exclude (1b) based only on economy considerations. Were the derivations of (1b) and (1c) both convergent, we should expect (1b) to be well-formed and (1c) to be ill-formed: when compared with (1b), (1c) involves an additional operation at PF, namely, the deletion of the lower copy, being therefore more costly than (1b). It must then be the case that the derivation of (1b) does not converge at PF, and is thereby not comparable with the convergent derivation of (1c) in terms of economy.

Chomsky suggests (p. 35) that deletion of traces at PF is an obligatory variant of a more general process that converts the structure in (2a), for instance, into the sentence in (2b) at PF, by deleting E.

(2) a. John said that he was looking for a cat, and so did Bill [$_{E}$ say that he was looking for a cat]
b. John said that he was looking for a cat, and so did Bill.

In this paper, I argue that deletion of traces at PF, as exemplified in (1), is not of the same type as the PF deletion that takes place in (2) (if this is an instance of deletion at all). I propose that deletion of traces is determined by Kayne's (1994) Linear Correspondence Axiom, in conjunction with some plausible economy considerations concerning deletion. I show that in order to be linearized at PF, a chain must have some of its links deleted. Determining which links are to be deleted then depends on whether or not the derivation converges and whether or not the derivation is the most economic. Finally, I suggest that the Procrastinate principle (Chomsky 1993:30) can be derived from economy considerations concerning the number of applications of the operation Linearize.

1 Kayne's (1994) Antisymmetry of Syntax

Kayne (1994) proposes that the left-to-right linearization of the terminal symbols of a phrase-marker is determined by the notion of asymmetric c-command, as defined in (3) and (4) (Kayne 1994:4,18).

(3) X asymmetrically c-commands Y iff X c-commands Y and Y does not c-command X

(4) X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y

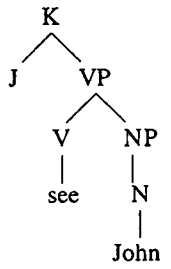
Given that A and B are non-terminal symbols, if A asymmetrically c-commands B, the terminal symbol(s) dominated by A will linearly precede the terminal symbol(s) dominated by B. Kayne refers to this mapping from a phrase marker onto a linear order of terminal symbols as the Linear Correspondence Axiom (LCA).[1]

The reader is referred to Kayne's paper for arguments and relevant evidence for the LCA. My main concern in the following sections regards the issue of how non-trivial chains comply with the LCA, if the copy theory of movement is assumed.

2 Deletion of Chain Links at PF

Kayne briefly mentions the question of linearization of chains under the copy theory of movement when discussing the well-formedness of the phrase-marker in (5) below with respect to the LCA, as opposed to the one in (6) (Kayne 1994:10). According to him, (5) is a well formed phrase-marker because V asymmetrically c-commands N and, therefore, *see* precedes *John*; in (6), on the other hand, V and NP c-command each other and, therefore, no linear order between *see* and *John* can be established.

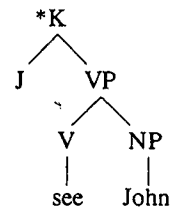
(5)



[1] The LCA is formalized as in (i) (Kayne 1994:6), where *d* is the non-terminal-to-terminal dominance relation; *A* is the set that contains all the ordered pairs of non-terminals $<X_j, Y_j>$ of a phrase-marker P such that for each j, X_j asymmetrically c-commands Y_j; and *T* is the set of terminal nodes of P. In his section 5.3, Kayne further claims that if <x,y> is in d(A), then x precedes y.

(i) Linear Correspondence Axiom:
d(A) is a linear ordering of T

(6)



As Kayne observes:

> The question arises of what happens if *John* (or any phrase) is moved. If the result of movement is that DP (or NP) dominates just a trace, then *see* and that trace will not be ordered at all with respect to one another, since the internal structure of DP (or NP), which ensured antisymmetry, will have been lost. This might conceivably be a tolerable consequence, since traces are in any event not visible. It is notable, though, that this question does not arise if movement transformations leave a copy, rather than a trace. (Kayne 1994:133, chap. 2, fn. 3)

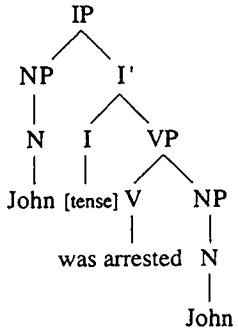
Kayne's suggestion is that under the copy theory of movement, there is no problem in linearizing a trace in complement position with respect to the head it is a sister of, provided that the trace has internal structure. In other words, traces do not differ from unmoved elements with respect to the well-formedness conditions on phrase-markers imposed by the LCA. However, an interesting problem is posed by the linearization of the non-trivial chain itself, if we take into consideration the initial array of the relevant structure (Chomsky 1993:20), as discussed below.

Chomsky (1994:7) proposes that the array that underlies a structural description is a *numeration* (see Uriagereka (forthcoming) for discussion):

> A numeration [is] a set of pairs (l, n), where l is an item of the lexicon and n is its index, understood to be the number of times that l is selected. (...) The procedure C_{HL} [the computational system] selects an item from N [the numeration] and reduces its index by 1, then performing permissible computations. C_{HL} does not converge unless all indices are zero. (Chomsky 1994:7)

With these notions in mind, let us consider the simplified phrase marker in (7), for example, where the NP (or DP) *John* moves to some Spec position leaving a copy behind.

(7)



Although (7) has two instances of *John*, its corresponding numeration has a single occurrence of this lexical item. Once pulled out from the lexicon, *John* in (7) gets duplicated as part of the inner workings of the operation Move α (Chomsky 1993:22, 35). In other words, the two instances of *John* in (7) are part of a single discontinuous element: a non-trivial chain. Let us assume that elements that are non-distinct in a numeration should count as the same element for purposes of linearization.

If the moved NP in (7) and its trace are taken as the same element for linearization purposes, *John* should in principle precede (and follow) itself, because the moved NP asymmetrically c-commands its copy. However, linear order as specified by the LCA is irreflexive (Kayne 1994:134, fn. 8). A word or phrase in a sentence does not precede itself. Hence, the phrase-marker in (7), as it stands, violates the irreflexivity requirement of the LCA. As a consequence of this violation, there arises a contradiction (a violation of the requirement that a linear order be antisymmetric): *was arrested* should precede and follow *John*, since V asymmetrically c-commands and is asymmetrically c-commanded by the NP dominating *John*.[2]

This provides a straightforward account for the fact that the phrase-marker in (7) cannot surface as the sentence in (8a) below. To put it more generally, if the links of a chain count as the same element as far as the LCA is concerned, we have an explanation for why a chain cannot surface at PF with all of its links realized: it cannot be linearized. This is a welcome result. Recall that we did not want the derivations of (8a) and (8b) to be both convergent and comparable in terms of economy. Otherwise, only (8a) should

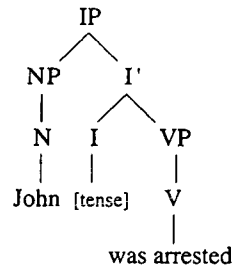
[2] The fact that *John* precedes and follows itself is, of course, a violation of the antisymmetry requirement of the LCA, as well.

surface, because it is more economic than (8b) in that its derivation does not involve the additional operation of deleting the copy in object position, as in (8b). On the other hand, if (8a) crashes at PF because it fails to meet the LCA, as claimed here, (8a) and (8b) are not comparable, giving rise to the correct results.

(8) a. *John was arrested John.
b. John was arrested.

I therefore propose that deletion in the PF component is forced upon chains in order to make their linearization possible (see Nunes (forthcoming), for another strategy). Let us suppose that the deletion operation targets a node X of a non-trivial chain and erases X and all the nodes it dominates. Thus, if the deletion operation targets the NP in object position in (7), for instance, we obtain the phrase-marker in (9) below. (9) can converge at PF because it can now be linearized (cf. (8b)): there is no violation of the irreflexivity or antisymmetry requirements of the LCA.

(9)



The approach sketched above correctly distinguishes impossible PF outputs involving copies, such as (8a), from possible outputs involving more than one instance of a given lexical item, such as (10) below. (10) can be a possible PF output if the initial numeration underlying it has n = 2 for *John*. If this is the case, the two instances of *John* do not count as the same element for the purposes of linearization, allowing the derivation of (10) to obey the LCA without violating its irreflexivity and antisymmetry requirements.[3]

[3] In (10), the traces of both instances of *John* left in the Specs of matrix and embedded VPs are irrelevant for the point under discussion. Notice also that a derivation of (10) with n = 1 for *John* in its initial numeration cannot converge because it violates not only the LCA, but also Greed and the θ-Criterion (see Chomsky 1994:14, 38-39): since *John* has all of its features checked in the embedded

(10) John said that John is smart.

Let us now consider Chomsky's (1993:35) suggestion that the deletion operation exemplified in (8) is an obligatory variant of the operation that optionally applies to constructions such as (11a), yielding (11b).

(11) a. John said that he was looking for a cat, and so did Bill [say that he was looking for a cat]
b. John said that he was looking for a cat, and so did Bill.

Clearly, the two instances of some of the lexical items of (11a) do not result from duplication by the operation of Move α. These double occurences should therefore be specified in the initial numeration.[4] The linearization of (11a) is thus as trivial as the linearization of (10). The question is whether (11b) is derived from (11a). Let us suppose that it is. The derivations of the sentences of (11) should then be compared in terms of economy, for both are convergent and presumably have the same numeration. Given that the derivation of (11b) invokes an apparently unmotivated operation that is not required by the derivation of (11a), namely deletion, economy considerations should block the derivation of (11b), yielding an incorrect result.[5]

Since the derivations of (11a) and (11b) are convergent but appear to differ in terms of economy, the only way to prevent them from being compared for economy purposes is to assume that they do not have the same numeration at the point where the alleged deletion operation takes place (see fn. 4). If this is so, then it must be the case that the two sentences of (11) cannot be related derivationally, contrary to what is proposed by Chomsky (1993)

subject position, it cannot raise to the Spec of the matrix VP to receive the external θ-role of *said*, or to the matrix subject position to check the strong NP-features of T.

[4] Notice that the double occurrence of lexical items in the initial numeration is not a necessary requirement for the alleged deletion in constructions such as (11b). The verbal form *say* is presumably deleted in (11b), but occurs only once in the underlying numeration (cf. (11a)). For relevant discussion of these matters, see Lasnik (1994).

[5] Noting that the interpretation of (11a) and (11b) is the same (for example, they are both subject to a "parallelism constraint") and that the bracketed constituent in (11a) has a distinctive low-flat intonation, Chomsky and Lasnik (1993:564) propose that "the deletion rule (...) could say simply that material with this intonational property may optionally delete". It seems to me that this proposal is at odds with the common assumption that deletion is an instance of Affect α (see Lasnik and Saito 1984) and, therefore, is in principle as costly as movement operations.

and Chomsky and Lasnik (1993) (see fn. 5). In fact, an alternative approach to the apparent deletion in (11b) has been proposed in the literature (for discussion, see Chao (1987) and references therein). The initial numeration underlying (11b) may be taken to include an empty category (the complement of *did*), which at LF is assigned the interpretation 'say that he was looking for a cat' (with the restrictions imposed by the "parallelism constraint", see fn. 5). Since they have different numerations, the derivations of the sentences in (11) cannot be compared in terms of economy, which correctly allows both to surface.

To sum up, I have proposed that a non-trivial chain cannot be linearized in the PF component with all of its links realized, because it fails to meet the irreflexivity and antisymmetry requirements of the LCA. Furthermore, I proposed that the deletion operation is a kind of repair strategy that may allow a chain to satisfy the LCA and converge at PF. We now have to provide an explanation for why the deletion operation targets the traces but not the head of a chain. This is the subject of the next section.

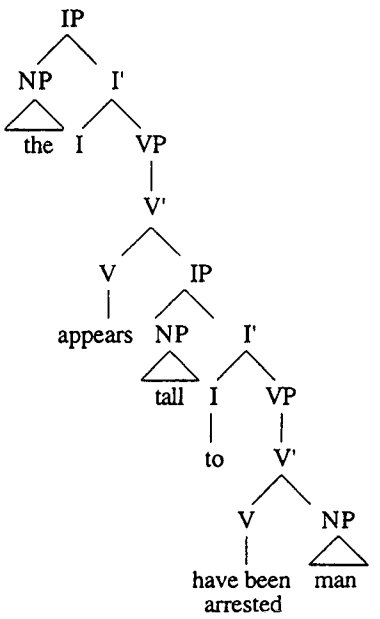
3 Optimality of Deletion at PF

3.1 Full vs. Scattered Deletion

Consider the simplified structure in (12) below, in which the embedded object NP raises to the matrix subject position, leaving two copies behind. As discussed in section 2, a structure such as (12) cannot be linearized as it is, because the NP chain does not satisfy the irreflexivity requirement of the LCA. The deletion operation could then allow (12) to be linearized, by erasing the "repeated" lexical items of the non-trivial chain. Nothing that has been said so far, however, prevents deletion from applying within the different links of the non-trivial chain of (12), yielding what may be called "scattered deletion", as exemplified in (13).

(12) [$_{IP}$ [$_{NP}$ the tall man] appears [$_{IP}$ [$_{NP}$ the tall man] [to have been arrested [$_{NP}$ the tall man]]]]

(13)



Although the NP in the matrix subject position of (13), for instance, asymmetrically c-commands the two other NPs of its chain, it is not the case that the terminal symbol dominated by the topmost NP is the same as the terminal symbols dominated by the lower NPs. Therefore, no terminal node of the chain will precede or follow itself. Once the reflexivity problem is circumvented, the chain should be linearized in compliance with the LCA, allowing the derivation to converge at PF. The problem, nonetheless, is that this derivation does not yield a well-formed sentence:

(14) *The appears tall to have been arrested man.

I propose that although (13) converges at PF and yields an interpretable object at the PF interface, it is not the most economic derivation. To put it more generally, scattered deletion is not an optimal derivation. Take (12), for example. Under standard assumptions, the phrase *the tall man* has a node that dominates only *tall* and *man*, but it has no node that dominates only *the* and *tall* or only *the* and *man*. Hence, in order to derive (13) from (12), the deletion operation must apply (at least) five times, targeting the

following non-terminal nodes: the node minimally dominating *tall* and *man* in the matrix subject position, the nodes minimally dominating *the* and *man* in the intermediate subject position, and the nodes minimally dominating *the* and *tall* in the object position. Three other derivations are more economic, though. If deletion targets two of the NP nodes in (12), the sentences below are derived with just two applications of deletion, since the deletion operation may target an NP node and erase all the terminal symbols that it dominates:

(15) a. The tall man appears to have been seen.
b. *Appears the tall man to have been seen.
c. *Appears to have been seen the tall man.

Economy considerations concerning the number of applications of the deletion operation, therefore, block the scattered deletion in (13), in favor of the more economic derivations that yield the outputs in (15).

3.2 Deletion of the Head of a Chain vs. Deletion of Traces: the Problem

We are still left with a problem from the previous section. If the three derivations that yield the distinct sentences in (15) are equally economic, we have to explain why the only derivation that yields an acceptable sentence (cf. (15a)) is the one in which the traces - but not the head of the NP chain - are deleted. Recall that under the copy theory of movement, the trace is a full copy of the moved element. Hence, there does not seem to be a principled reason based on the links themselves for PF deletion to target traces, rather than the head of the chain.

At first sight, the paradigm in (15) could be accounted for if one relied on the hypothesis that the NP-features of Tense are strong in English (Chomsky 1993:31). Since strong features are visible (Chomsky 1993:30) or cannot be deleted at PF (Chomsky 1993:47, fn. 37), the derivation of an English sentence will crash at PF unless the NP-features of T are checked before Spell-Out. This apparently derives the fact that a structure such as (12) can only surface as (15a), for the head of the NP chain is required to check the NP-features of the matrix T.

This approach does not sustain close scrutiny, though. If strong features need to be checked *prior* to Spell-Out, and the LCA applies in the PF component, *after* Spell-Out (Chomsky 1994:28), the strong NP-features of the matrix T in (12) have already been checked when the phrase-marker is shipped to the PF component. Therefore, these features cannot be resorted to in order to provide a

criterion for choosing among the derivations of the sentences in (15) *at the PF component*. By the time the structure in (12) is Spelled-Out, the NP-features of the matrix T are already inert. Notice in addition that the T head of the intermediate clause in (12) presumably has strong NP-features as well. However, if the intermediate NP trace survives at PF (regardless of whether or not the upper copy also survives), the resulting sentence is ill-formed (cf. (15b)).

In the next section, I pursue an alternative approach, which shares with the one discussed above the intuition that the checking operation paves the way for an account of the paradigm in (15).

3.3 Deletion of Infl-Features

In the Minimalist Program, lexical items are taken to have inflectional features in the lexicon which are later checked against inflectional heads:

> We may take a lexical element, say the verb V to be a sequence V = (α, $Infl_1$, ..., $Infl_n$), where α is the morphological complex [R-$Infl_1$-..., -$Infl_n$], R a root and $Infl_i$ an inflectional feature. The PF rules only "see" α. When V is adjoined to a functional category F (say, Agro), the feature $Infl_1$ is removed from V if it matches F; and so on. (Chomsky 1993:28)

Assuming that "like verbs, nouns are drawn from the lexicon with all of their morphological features, including Case and ϕ-features, and that these too must be checked in the appropriate position" (Chomsky 1993:29), let us see how a sentence such as (16b) can be derived from the simplified structure in (16a).

(16) a. [$_{IP}$ [John] [$_{VP}$ was arrested [John]]]
b. John was arrested.

For the purposes of this discussion, suppose that the lexical item *John* inserted in object position was drawn from the lexicon just with the feature [NOM] (nominative Case).[6] As discussed above, the NP *John* must move overtly to subject position in order to check the strong NP-feature of T before Spell-Out. Now there arises the question of what happens to the [NOM]-feature of the trace in (16)

[6] I leave open the question of the internal structure of lexical items, if understood as sequences of the type (α, $Infl_1$, ..., $Infl_n$), as proposed by Chomsky (1993:28). All that is necessary for my purposes is that the deletion operation may also target the weak Infl-features of a lexical item (see fn. 9 and 10 below), as suggested by Chomsky (1993:47, fn. 37).

after the NP in subject position checks its [NOM]-feature against T. Is the [NOM]-feature of the trace also checked, as represented in (16a), or is it unaffected by the checking operation, as represented in (17) below?

(17) [IP [NP John] [VP was arrested [NP [John] NOM]]]

If the features of both the head of the chain and the trace are checked, as represented in (16a), we still have the problem of deciding on independent grounds which link should be deleted for purposes of linearization at PF. Recall that targeting either of the links would be equally economic, for deletion would apply only once.

Let us then suppose, on the contrary, that only the features that are in the checking domain (Chomsky 1993:12) of an appropriate inflectional head can be checked. If so, (17) - and not (16a) - is the correct input to PF, for only the NP in subject position is in the checking domain of the head that can check [NOM], namely, T (or the chain (T, *t*)).[7] (17) now provides an economy criterion for choosing between deleting the head of a chain and deleting a trace.

If deletion targets the NP node in object position in (17), both *John* and the [NOM]-feature are erased, as represented in (18) below. The NP chain then meets the LCA and the derivation converges at PF (cf. (16b)).

(18) [IP [NP John] [VP was arrested]]

If, on the other hand, deletion targets the NP node in subject position, the output is as in (19) below.

(19) [IP [VP was arrested [NP [John] NOM]]]

As it is, (19) should crash at PF, because it contains an element that is not a legitimate PF object, namely, the [NOM]-feature of *John*.

[7] Jonas and Bobaljik (1993) have proposed that in English T raises overtly to Agrs independently of verb movement, and that the subject raises directly to Spec of Agrs, checking the NP-features of both T and Agrs. At first sight, this proposal seems to be incompatible with the analysis pursued here. One could say that the trace of T retains its strong NP-features, causing the derivation to crash at PF because strong features cannot be deleted (see fn. 9 below). This actually turns out not to be a problem. When T raises to Agrs, the upper copy of T does not have a checking domain of its own; rather, the T-chain does (see Chomsky 1993:12). A subject NP in Spec of Agrs is therefore able to check the strong NP-features of both links of the T-chain, because it is in the checking domain of the whole T-chain.

Hence, (19) requires further deletion of the [NOM]-feature in order for the derivation to converge at PF.[8] Such a derivation is, nevertheless, blocked by economy considerations: if deletion targets the subject NP first, as in (19), a convergent derivation can only arise after another application of the deletion operation, this time erasing the [NOM]-feature; if the object NP is targeted as in (18), on the other hand, the derivation converges with a single application of the deletion operation and, therefore, is the one to be chosen.[9]

The same reasoning applies to the choice among the derivations of the sentences in (15), repeated below in (20) for convenience. If the Infl-features of a lexical head are checked only in the checking domain of the relevant checker, (21) - and not (12) - is the (simplified) input to PF that underlies the sentences in (20).

(20) a. The tall man appears to have been seen.
b. *Appears the tall man to have been seen.
c. *Appears to have been seen the tall man.

(21) [IP [NP the tall man] appears [IP [NP [the tall man] NOM] [to have been arrested [NP [the tall man] NOM]]]]

Given the input to PF in (21), the sentences in (20) are not derived by equally economic derivations. (20a), for instance, can be derived from (21) with two applications of the deletion operation: one targeting the NP node of the intermediate subject and the other targeting the NP node in object position. In order for a convergent derivation to yield (20b) or (20c), on the other hand, there must be at least three applications of the deletion operation: one targeting the [NOM]-feature of the NP that survives, and two others targeting the remaining NP nodes. Since the most economic derivation must be chosen, only the sentence in (20a) is derived.

The asymmetry between the head and the traces of a chain with respect to PF deletion for purposes of linearization is, therefore, not intrinsic to the links of the chain themselves. Rather, it follows from the asymmetry created by the checking operation. Assuming that movement is always triggered by some

[8] The operation that deletes the [NOM]-feature in (19) is the same one that deletes the [ACC]-feature (accusative Case) in (i) (see fn. 9 below).

(i) [IP Mary [VP saw John-ACC]]

[9] Chomsky (1993) proposes two alternatives for the treatment of the Infl-features of the lexical items at PF. Under the first one (p. 30), strong features are visible, while weak features are invisible at PF. Under the second alternative (p. 47, fn. 37), weak features can be deleted at PF, whereas strong features cannot. The analysis pursued in this paper provides evidence for the second approach.

morphological requirement (Chomsky 1993:32), and that an inflectional head (or an inflectional head chain, see fn. 7) only checks the relevant features of the chain link that is in its checking domain, the head of a chain will always have fewer Infl-features (if any) to be checked (or deleted) than the lower copies.[10] Therefore, a derivation that deletes all the links but the head of the chain is always more economic than a derivation that deletes all of the links of the chain but one trace. Since both derivations still have to delete the Infl-features (if any) of the link that survives in order to converge at PF, the derivation in which the head of the chain is the link that survives involves fewer additional applications (if any) of the deletion operation than the derivation in which a trace survives (see fn. 10).[11]

4 Deriving Procrastinate

Within the Minimalist Program, overt movement always involves checking strong features. In the absence of strong features to be checked, all the movement operations take place at LF. Chomsky refers to this delay strategy as Procrastinate:

[10] This analysis entails that in the derivation of a sentence such as (i) below, the NP in the embedded subject position has fewer remaining features (it still has to move to the Spec of the Agro dominating *believes* to check its Case- and Agr-features) than its deleted copy (or copies). It is not clear, however, which Infl-feature the NP *Mary* checks in the embedded subject position (see Lasnik 1993:72, fn. 6). If some feature of *Mary* is checked in this position, then it must be the case that the deletion operation either targets a node and erases in a single operation that node and all the material (including lexical items and Infl-features) that it dominates (see section 2), or it targets a single Infl-feature per application. Were the deletion operation able to erase all the Infl-features at once without erasing the corresponding lexical items, deletion of *Mary* in subject position in (i) would be as economic as deletion of the copy left in object position.

(i) John believes Mary to be loved by everyone.

Alternatively, it may be the case that in (i) (or in English, in general), the verb moves past AgroP and the object checks its features in Spec of Agro overtly (for discussion, see Pesetsky (1989); Johnson (1991); Koizumi (1993); and Ura (1993); among others). If so, the linearization of the chain involving the embedded subject in ECM constructions such as (i) is no different than the linearization of the subject chain in (17). In both cases, the upper copy has all of its features checked.

[11] In fact, even the recoverability condition on deletion may be taken to follow from economy considerations in the case of deletion for purposes of linearization. A derivation in which all the links of a chain are deleted always involves an extra application of deletion than a derivation that deletes all but one link of a chain. Furthermore, since this additional application is unmotivated, it violates Greed (see Chomsky 1993:33).

> LF movement is "cheaper" than overt movement (call the principle *Procrastinate*). The intuitive idea is that LF operations are a kind of "wired-in" reflex, operating mechanically beyond any directly observable effects. They are less costly than overt operations. The system tries to reach PF "as fast as possible", minimizing overt syntax. (Chomsky 1993:30)

In this section, I show that the approach to the linearization of non-trivial chains at PF that I have pursued above provides a conceptual reason for why movement after Spell-Out is less costly than movement before Spell-Out.

Assuming that movement operations are part of the computation system, and that the computation system is the same before and after Spell-Out, the fact that LF movement is less costly than overt movement must follow from considerations regarding the LF component or the PF component. It is implausible that this fact has something to do with the LF component; after all, movement operations must take place by LF anyway. Thus, it is conceivable that the cost of overt movement comes from considerations concerning the PF component.

Kitahara (1994) has proposed that Procrastinate follows from economy considerations concerning the number of applications of the deletion operation.[12] If a non-trivial chain is sent to PF, the traces of that chain must be deleted (for linearization purposes, according to the present theory), whereas a trivial chain does not invoke the deletion operation. Under this view, overt movement always entails extra work in the PF component, being therefore dispreferred when possible. Below I pursue this intuition with a different technical implementation.

We have seen that the deletion operation at the PF component is invoked as part of two different repair strategies. One strategy prevents derivations from crashing at PF by deleting unchecked weak features (see fn. 9). The other strategy deletes links of non-trivial chains in order for these chains to be linearized. Although the latter may feed the former, they are independently required. Consider, for example, a language whose Agrs and Agro heads have weak V-features. If the verb complies with Procrastinate and does not raise overtly to Agro, for instance, at least two applications of the deletion operation are necessary in order for the derivation to converge at PF: one deleting the Agro-feature of V, and another one deleting the V-feature of Agro (or the Agro node entirely). If, on the other hand, the verb raises overtly to Agro in

[12] This possibility was independently suggested to me by Mark Arnold (personal communication).

violation of Procrastinate, the Agro-feature of the head of the verb chain and the V-feature of Agro will disappear after the checking operation takes place. In order for such a derivation to converge, only one application of deletion targeting the trace of the verb (erasing the verb copy as well as its Agro-feature) would then be necessary. Hence, were Procrastinate to be determined solely by the number of applications of the deletion operation, overt movement should be less costly than LF movement, contrary to the assumptions in the Minimalist Program.[13]

Rather than relying directly on the number of applications of the deletion operation, as in Kitahara's (1994) system, I propose that the effects of Procrastinate are derived by economy considerations regarding the number of applications of the operation *Linearize*, i.e., the operation that maps a phrase-marker into a linear order of lexical items in accordance with the LCA. Putting cliticization of complements without internal structure aside (Chomsky 1994:28; and Nunes forthcoming), a phrase-marker with only trivial chains can give rise to a linear order with a single application of the operation Linearize. On the other hand, if a phrase-marker has n non-trivial chains, it requires (at least) n+1 applications of Linearize in order to yield a linear order. Let us see why.

If a phrase-marker that contains non-trivial chains is presented as input to the operation Linearize, no output will be generated. Linearize fails to yield an output in this case because the non-trivial chains violate the irreflexivity and antisymmetry requirements of the LCA. Hence, before the whole phrase-marker can be successfully linearized, the operation Linearize must apply to each non-trivial chain individually. The number of applications of Linearize in a derivation therefore depends on the number of non-trivial chains of the phrase-markers. A convergent derivation D_1 employing n applications of the operation Linearize will block a competing derivation D_2 (i.e., a convergent derivation with the same numeration) that employs m applications of Linearize, where m>n. The computation of the number of applications of deletion for purposes of economy that was discussed in section 3 is now understood as the inner workings of the operation Linearize itself. First, the system tries to minimize the number of applications of Linearize; this is what derives the effects of Procrastinate. Then, for each application of Linearize, the system tries to minimize the number of applications of deletion, which has the effect of deleting all links but the head of the chain.

[13] If Agro (and functional heads in general) have to be deleted at the PF component because they do not have a phonetic matrix, the derivation in which the verb moves overtly to Agro actually involves two applications of the deletion operation. The point in the text still holds, however, because such a derivation is as economic as the derivation in which the verb stays in situ, again contrary to the assumptions of the Minimalist Program.

5 Conclusion

Chomsky (1993:sec. 5) has shown that adopting the copy theory of movement yields good results from a Minimalist point of view. It enables us to account for reconstruction effects, as well as to analyze Binding Theory as a property of an interface level, namely, LF. Left unresolved in Chomsky's paper was the problem of why the copies created by movement cannot be active at PF similar to how they can be active at LF. In other words, the question of why a chain cannot surface with all of its links overtly realized was unanswered.

This paper is an attempt to address these issues. Under a Minimalist perspective, the ban on the overt realization of "full" chains should be stated as an interface condition. I have proposed that such a ban follows from the properties of the operation Linearize at the PF component. Assuming that the operation Linearize is governed by the Linear Correspondence Axiom (LCA) of Kayne (1994), I claimed that a non-trivial chain cannot be linearized with all of its links overt due to the irreflexivity and antisymmetry requirements of the LCA.

Since the copies of a chain are created by the inner workings of the movement operation and are not part of the initial numeration, I proposed that they should count as the same element for the purposes of linearization. Hence, given that in a non-trivial chain C $= (\alpha_1, \alpha_2, ..., \alpha_n)$, α_i asymmetrically c-commands every α_m (where $i+1 < m \leq n$), α (or the terminal symbols dominated by α) should precede (and follow) itself. This, however, violates the irreflexivity and antisymmetry requirements of the LCA, preventing the chain from being linearized, and causing the derivation to crash at PF.

In order for a non-trivial chain to meet the LCA, it is then necessary to delete all but one link of the chain. The choice of the copies to be deleted (which are always the traces, and not the head of the chain) follows from economy considerations concerning the number of applications of the deletion operation: since the head of the chain has fewer weak Infl-features (if any) to be deleted at PF than the traces, fewer applications of deletion will be required in a derivation in which the head of the chain survives at PF than in a derivation in which a trace survives.[14]

[14] See Nunes (forthcoming) for an analysis of clitic chains that apparently have more than one copy realized at PF in terms of cliticization (see Chomksy 1994:28) of the tail of the chain.

Finally, I suggested that Procrastinate can be taken to follow from economy considerations concerning the computations of the number of applications of the operation Linearize. Overt movement is more costly than covert movement because it requires that Linearize apply to every non-trivial chain before applying to the whole phrase-marker.

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APPENDIX

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1. Syntactic Objects

According to the bare X'-Theory developed in Chomsky (1994, 1995:chap. 4), syntactic objects are recursively defined as in (1) (see Chomsky 1995:243, 262):

(1) *Syntactic Object:*
σ is a syntactic object if it is:
(i) a lexical item or the set of formal features of a lexical item; or
(ii) the set K = {γ, {α, β}} or K = {<u><γ, γ></u>, {α, β}} such that α and β are syntactic objects and γ or <u><γ, γ></u> is the label of K.

Complex syntactic objects such as K = {γ, {α, β}} or K = {<u><γ, γ></u>, {α, β}} result from applications of the operations Merge or Move forming a regular category or a two-segment category (see Chapters 3 and 4 and sections 2.3 and 2.4 below for general discussion). The specific choice of the constituents α and β of K in an optimal derivation depends, among other things, on whether K is formed overtly or in the covert component (see Chapters 4 and 5 for general discussion). In the case of syntactic objects such as K in (1ii), the label γ is said to be identical to either α or β; in instances where a syntactic object σ is either a lexical item or the set of formal features of a lexical item (cf. (1i)), we will assume for the purposes of this appendix that the label of σ is σ itself.

In sections 2-9 below, we discuss how various grammatical notions and relations can be reanalyzed given the definition of syntactic object in (1).

2. Domination and Containment

2.1. Domination: Tentative Definition

Thus far, the notion of domination has been informally discussed based on intuitive graph representations. A formal recursive definition of domination in terms of the syntactic objects defined in (1) is provided in (2) (adapted from Chomsky's (1995:247) definition of term; see section 3 below):

(2) *Domination*:
Given a syntactic object K = {γ, {δ, μ}} or K = {<γ, γ>, {δ, μ}}, K dominates α iff:
(i) α ∈ L and L ∈ K; or
(ii) K dominates M and M dominates α.

To see definition (2) at work, consider the partial representation of *He will like it* in the top line of (3) below, where the tense head *will* takes the VP *like it* (= A = {like, {like, it}}) as its complement and the pronoun *he* as its specifier. (In (3) and in the following diagrams, a double arrow represents the application of the operation Merge and the syntactic object resulting from this operation is placed above an upward arrow.)

(3) C = {will, {he, {will, {will, {like, {like, it}}}}}}
↑
he ↔ B = {will, {will, {like, {like, it}}}}
↑
will ↔ A = {like, {like, it}}
↑
like ↔ it

Consider the syntactic object A = {like, {like, it}} in (3), which is formed by merging *like* and *it*. Take A to correspond to K in the definition in (2), the set {like, it} to correspond to L, and *like* and *it* to correspond to α. *Like* and *it* are members of the set {like, it}, which in turn is a member of the set A = {like, {like, it}}. Hence, according to the base step of (2), A dominates *like* and *it*. Likewise, *will* and A are members of the set {will, {like, {like, it}}}, which in turn is a member of the set B = {will, {will, {like, {like, it}}}}. Thus, B dominates *will* and A, according to (2i). Since B dominates A and A dominates *like* and *it*, as we have just seen, B dominates *like* and *it* by the recursive step in (2ii). Finally, *he* and B are dominated by C given that they are members of the set {he, {will, {will, {like, {like, it}}}}}, which is itself a member of C = {will, {he, {will, {will, {like, {like, it}}}}}}. Given that C dominates B by the base step, it also dominates by the recursive step all the elements that B dominates, namely, *will*, A, *like*, and *it*.

2.2. Irreflexivity

There are several reasons for taking domination to be an irreflexive relation. For instance, consider the undesirable consequences of a reflexive notion of domination for the definition of command given in (4) below (see Chapter 3.3 and section 7 below for further discussion) and ultimately for the Linear Correspondence

Axiom, which is repeated here in (5) (see Chapter 3.3).

(4) *Command*:
Where α and β are accessible to C-hl, α commands β iff:
(i) α does not dominate β; and
(ii) the first category dominating α also dominates β.

(5) *Linear Correspondence Axiom (LCA):*
A category α precedes a category β iff:
(i) α asymmetrically commands β; or
(ii) γ precedes β and γ dominates α.

Given the syntactic object C in (3), for instance, it should be the case that *h e* asymmetrically commands *will*, so that we obtain the order specifier-head (see Chapter 3.3). However, if *he* dominated itself, it would fail to command *will* (or any other category), because the first category dominating *he*, namely *he* itself, does not dominate *will* (or any other category). This shows that domination is to be taken as an irreflexive relation (see Kayne 1994:chap. 3, fn. 8).

Let us see how the undesirable implications of a reflexive notion of domination can be prevented. According to the definition in (2), in order for K to dominate itself, K (= α) must be a member of the set L, which in turn must be a member of K; in other words, the syntactic object K, which is a set, must be a member of itself. However, there is evidence that set-membership is not a reflexive relation. If any given set were allowed to be a member of itself, Russell's paradox would arise: the specification of the set $U = \{x \mid x \notin x\}$ requires that U not be a member of itself in order for U to be a member of itself. Given these independent considerations, K cannot dominate itself by the base step of the definition of (2) because set-membership is not a reflexive relation.

In turn, in order for K to dominate itself by the recursive step of (2), K, M, and α should be identical in (2ii), which amounts to saying that K should dominate itself by the base step. Since this does not hold, as we have just seen, it is also the case that K does not dominate itself by the recursive step of the definition of domination.

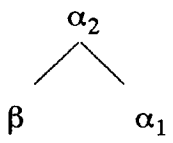
Therefore, if the definition of domination given in (2) is assumed, nothing needs to be added to the theory in order to ensure that domination is irreflexive. The notion of domination in (2) is defined for syntactic objects which are set-theoretic objects (cf. (1ii)) and relies on set-membership, which is an irreflexive relation. Thus, domination inherits its irreflexivity from set-membership.

2.3. Domination and Containment Relations in Adjunction Structures

Consider the phrase-marker representation in (6), where β adjoins to α_1,

forming the two-segment category $[\alpha_2, \alpha_1]$.

(6)



The idea behind this representation is that α_2 in (6) does not have any independent reality with respect to the computational system, but is merely a segment of the two-segment category $[\alpha_2, \alpha_1]$. The domination relation involving categories is then characterized in terms of the domination relation involving segments, as in (7) and (8) below (see May (1985), Chomsky (1986)).

(7) *Domination*:
A category α dominates a syntactic object β iff every segment of α dominates β.

(8) *Containment*:
A category α contains a syntactic object β iff some segment of α dominates β.

According to the definitions in (7) and (8), the category $[\alpha_2, \alpha_1]$ in (6) contains but does not dominate β, because the segment α_1 of $[\alpha_2, \alpha_1]$ does not dominate β. Thus, β in (6) can in principle command outside of $[\alpha_2, \alpha_1]$ (that is, β can command an element that is not dominated by $[\alpha_2, \alpha_1]$). Some of the consequences of these assumptions are reviewed below in the context of bare X'-Theory representations.

Consider now the bare phrase structure representation of (6), given in (9):

(9) $K = \{\underline{<\alpha, \alpha>}, \{\alpha, \beta\}\}$

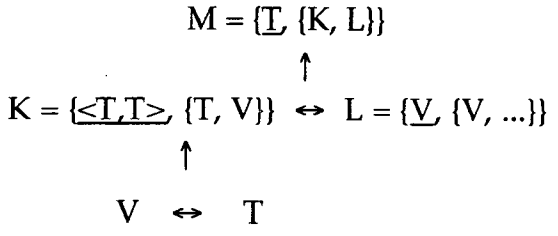
$\beta \leftrightarrow \alpha$

Chomsky (1994:15, 1995:248) takes the notation $K = \{\underline{<\alpha, \alpha>}, \{\alpha, \beta\}\}$ in (9) to correspond to the two-segment category $[\alpha_2, \alpha_1]$ in (6). Assuming that this is accurate, the two-segment category K in (9) dominates both α and β, according to the definition of domination given in (2); hence, neither α nor β can command out of K. Let us examine two concrete cases to discover if this is a welcome result.

Consider first the syntactic object K in (10), which is formed after V moves

and adjoins to T.

(10)



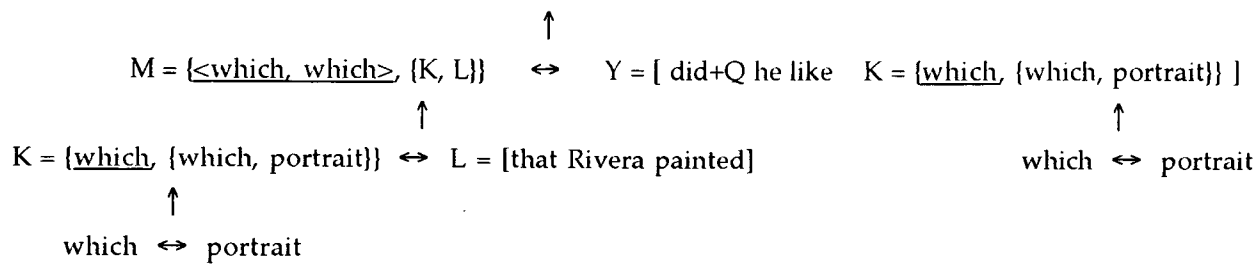
T and the moved V are members of the set {T, V}, which in turn is a member of the set K = {<T,T>, {T, V}}. Thus, according to (2), K dominates T and V. In order for a chain between the moved verb V and its trace to be formed in (10), V must command its trace (see Chapter 4.4). For this to hold according to the definition in (4), the first category dominating V should dominate the trace of V. As seen above, the first syntactic object dominating the moved V in (10) is K = {<T,T>, {T, V}}, which does not dominate the trace of V. Thus, if K is a (two-segment) category and the definition of domination in (2) is assumed, no chain can be formed between the moved V and its trace, predicting that the derivation should either crash or be canceled.

A similar undesirable result arises in constructions involving noncyclic adjunction of relative clauses. As discussed in Chapter 4.3 and 4.4, the derivation of sentences such as (11a) presumably involves noncyclic adjunction of the relative clause to the moved wh-phrase, as partially represented in (11b) and (11c), where Q stands for the null interrogative complementizer.

(11) a. Which portrait that Rivera$_i$ painted did he$_i$ like?

b. [$_{CP}$ [[which portrait] [that Rivera painted]] [did+Q he like [which portrait]]]

c.



In (11c), the relative clause L = [that Rivera painted] adjoins to the moved wh-phrase K = {which, {which, portrait}}, forming M. If the moved wh-phrase K and its trace within Y are to form a chain, K must command its trace. In order to determine whether this is the case, we need to identify the first category dominating K. The first

syntactic object dominating K is M, which does not dominate the trace of K. Thus, if M is a (two-segment) category and the definition of domination in (2) is assumed, K is prevented from commanding and forming a chain with its trace inside Y, which should then cancel the derivation, or make it crash.

In order to prevent this undesirable result, one could, for instance, take K = {<u>≤α, α≥</u>, {α, β}} in (9) to be a segment of a two-segment category [K, α], rather than a two-segment category in itself. Assuming that domination for categories is defined as in (7), the two-segment category D = [K, T] in (10), for example, does not dominate the moved V because it is not the case that every segment of D dominates V; the segment T of D = [K, T] does not dominate V. Thus, if K in (10) is a segment of the two-segment category D = [K, T], the first category dominating the moved V is actually M = {<u>T</u>, {K, L}}; given that M dominates K and K dominates V, M dominates V by the recursive step of (2). Since the first category dominating the moved V, namely M, also dominates the trace of V (by the recursive step of (2)), V commands and can form a chain with its trace. As for (11c), if M is only a segment of the two-segment category X = [M, K], the root object W = {<u>Q</u>, {M, Y}} is the first category dominating K. Crucially, the two-segment category X = [M, K] does not dominate K according to (7), because K does dominate itself, as discussed in section 1.2. Given that the root object W dominates the trace of K by the recursive step of (2), K commands its trace and a wh-chain can be formed, as expected.

In order to derive the expected command relations, this approach assumes an additional complex syntactic object: an object of the type K = [L, M] such that L is a segment built from M, (i.e. L = {<u>≤H(M), H(M)≥</u>, {α, M}}), and M is a category (i.e. M is a lexical item or a syntactic object of the type M = {<u>γ</u>, {α, β}}). This approach also raises the issue of whether [. . .] in K = [L, M] should be understood as a set, so that an adjunction structure would involve a set of syntactic objects with no label attached to it, as suggested in passing in Chapter 4.4, or whether [. . .] is a new kind of formal object.

Below, we pursue an alternative approach to this one, which also maintains that syntactic objects of the type K = {<u>≤γ, γ≥</u>, {α, β}} are two-segment categories. However, the notation of the label of syntactic objects formed by adjunction is slightly changed. The proposed change in notation does not increase the number of types of syntactic object or introduce new kinds of formal objects, as we will see directly.

2.4. Domination and Containment: Final Definitions

An ordered pair <α, β> is formally equivalent to the set A = {{α}, {α, β}}, and the set {α, α} is formally equivalent to {α}. Thus, an ordered pair <α, α> corresponds to the set B = {{α}, {α, α}} = {{α}, {α}} = {{α}}. Instead of using the ordered pair notation for the label of syntactic objects formed by adjunction, let us use its set theoretic correspondent, so that the formalization of syntactic objects is as given in (12):

(12) *Syntactic Object:*

σ is a syntactic object if it is:

(i) a lexical item or the set of formal features of a lexical item; or

(ii) the set K = {$\underline{\gamma}$, {α, β}} or K = {{{$\underline{\gamma}$}}, {α, β}} such that α and β are syntactic objects and $\underline{\gamma}$ or {{$\underline{\gamma}$}} is the label of K.

Observe that according to the base step of both (1) and (12), the label of syntactic objects formed by adjunction ($\underline{\leq\gamma, \gamma\geq}$ or {{$\underline{\gamma}$}}) does not correspond to a syntactic object. Given the alternative notation for the label of objects formed by adjunction in (12ii), the definitions of domination and containment can be updated as in (13) and (14):

Given a syntactic object K such that K = {$\underline{\gamma}$, {δ, μ}} or K = {{{$\underline{\gamma}$}}, {δ, μ}}:

(13) *Domination*:

K dominates a syntactic object α iff:

(i) for every set L such that L ∈ K, α ∈ L; or

(ii) K dominates M and M contains α.

(14) *Containment*:

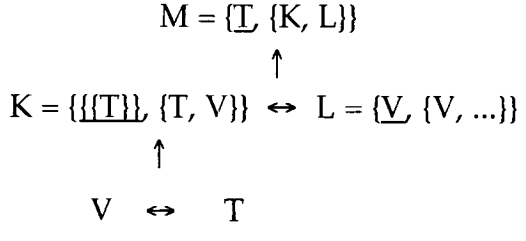
K contains a syntactic object α iff:

(i) for some set L such that L ∈ K, α ∈ L; or

(ii) K contains M and M contains α.

Let us reconsider the relevant domination and containment relations in (10), repeated in (15) with the new notation:

(15)



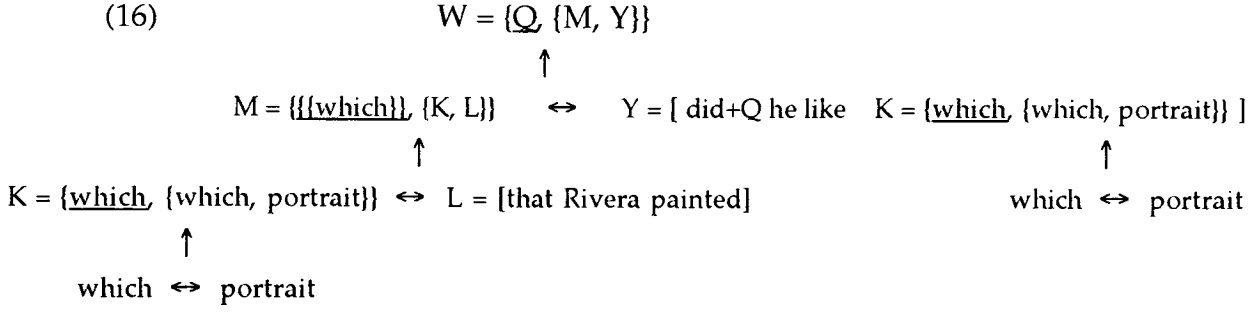
The object K in (15) has two sets as members: {{T}} and {T, V}. T and V are members of {T, V}, but not of {{T}}. Note that (13i) poses, as a necessary condition for domination, that all sets in an element like K in (15) have, say, T as a member, if K is to dominate T. This condition will never be met in standard phrasal objects, unless these objects only have as members a label without set-theoretic properties and an arbitrary set. This is not the case for K in (15), which has a nontrivial label {{T}}, a complex set-theoretic object. In contrast, the condition that (14i) imposes for

containment is much weaker: it is enough that some set in K have, say, T as a member in order for K to contain T. In consequence, according to the definitions in (13) and (14), K in (15) contains but does not dominate T or V.

In turn, M has only one set as a member, namely, {K, L}. Thus, M contains and dominates K and L. Given that M dominates K and K contains V and T, M dominates V and T by the recursive step in (13ii). Hence, according to the definition of domination in (13), the moved V in (15) commands and can form a chain with its trace: the first category that dominates the moved V, namely M, also dominates the trace of V (by the recursive step of (13ii)).

As for (11c), repeated in (16) below using the new notation, the moved K is contained but not dominated by the two-segment category M = {{{which}}, {K, L}}, according to the definitions in (13) and (14). The first category which dominates K is the root object W, which also dominates the trace of K (by the recursive step in (13ii)). Thus, the moved K commands its trace and the two copies can form a chain, as expected.

(16)



Notice that, assuming the definitions of domination and containment in (13) and (14), there is no sense is asking whether K in (15) dominates or contains {{T}} or whether M in (16) dominates or contains {{which}}. As stated in (13) and (14), domination and containment are relations established between syntactic objects, and according to the list of possible syntactic objects in (12), {{T}} and {{which}} are not syntactic objects. The label of a syntactic object formed by adjunction is akin to the "top" segment α_2 in the phrase-marker representation in (6) in that it is not accessible to the computational system or interpreted by the interface systems.

3. Terms

In standard X'-Theory representations, the constituents of a given syntactic object correspond to nodes in a phrase-marker. Chomsky (1995:247) proposes that syntactic constituents in bare X'-Theory correspond to terms, as defined in (17):

(17) *Term*:
For any syntactic object K,
(i) K is a term of K;
(ii) if L is term of K, then the members of the members of L are terms of K.

Consider the syntactic object M in (18), for instance.

(18) $M = \{\underline{\alpha}, \{\delta, \{<\alpha, \alpha>, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}\}\}$

$\delta \leftrightarrow L = \{\underline{<\alpha, \alpha>}, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}$

$\gamma \leftrightarrow K = \{\underline{\alpha}, \{\alpha, \beta\}\}$

$\alpha \leftrightarrow \beta$

According to the base step in (17i), M in (18) is a term of M. If M is a term of M, then the members of the members of M are also terms of M, according to recursive step in (17ii). M has two members: the label $\underline{\alpha}$, which is irrelevant for our purposes because it has no members, and the set $\{\delta, \{<\alpha, \alpha>, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}\}$, whose members are δ and $L = \{\underline{<\alpha, \alpha>}, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}$. Thus, δ and L are terms of M by (17ii). L in turn has two members: the label $\underline{<\alpha, \alpha>}$, which is not relevant because it is not a set (more on this below), and the set $\{\gamma, \{\alpha, \{\alpha, \beta\}\}\}$, which has γ and $K = \{\underline{\alpha}, \{\alpha, \beta\}\}$ as members. Given that L is a term of M, and γ and K are members of a member of L, γ and K are also terms of M by the recursive step of (17). Finally, the set K has two members: the label $\underline{\alpha}$, which is irrelevant in virtue of not having any members, and the set $\{\alpha, \beta\}$. Thus, α and β are terms of K by the base step of (17) and terms of L and M by the recursive step.

The definition of term in (17) raises some problems for adopting the notation $\underline{\{\{\gamma\}\}}$ instead of the ordered pair $\underline{<\gamma, \gamma>}$ for the label of objects formed by adjunction, as proposed in section 2.4. Consider L of (18) under the notation adopted in (12), for instance:

(19) $L = \{\underline{\{\{\alpha\}\}}, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}$

$\gamma \leftrightarrow K = \{\underline{\alpha}, \{\alpha, \beta\}\}$

$\alpha \leftrightarrow \beta$

Under the new notation, L is comprised of two sets: $\{\underline{\{\alpha\}}\}$ and $\{\gamma, \{\alpha, \{\alpha, \beta\}\}\}$. Given that L is a term of L by the base step in (17i), the members of these two sets, namely $\{\alpha\}$, γ and $K = \{\underline{\alpha}, \{\alpha, \beta\}\}$, are also terms of L by the recursive step in (17ii). However, this is a conceptually odd result; $\{\alpha\}$ in (19) is a term of L although $\{\alpha\}$ is not a syntactic object (cf. (1) or (12)). Moreover, the combination of the new notation adopted in (12) with the definition of term in (17) has the a priori dubious implication that operations forming adjunction structures yield more terms than operations forming "substitution" structures. The merge operation forming K in (19), for instance, yields three terms: K, α and β, whereas the merge operation forming K in (20) yields four terms: K, α, β, and $\{\alpha\}$.

(20) $K = \{\underline{\{\{\alpha\}\}}, \{\alpha, \beta\}\}$

$\uparrow$

$\alpha \leftrightarrow \beta$

In section 2.4, we saw that the new notation for the label of syntactic objects formed by adjunction allowed domination and containment relations to be computed without the introduction of new primitive syntactic objects or relations. We will thus continue to use this new notation and revise the definition of term in terms of containment, repeated below in (21), as given in (22):

(21) *Containment*:
Given a syntactic object $K = \{\underline{\gamma}, \{\delta, \mu\}\}$ or $K = \{\underline{\{\{\gamma\}\}}, \{\delta, \mu\}\}$, K contains a syntactic object α iff:
(i) for some set L such that $L \in K$, $\alpha \in L$; or
(ii) K contains M and M contains α.

(22) *Term*:
T is a term of a syntactic object K iff:
(i) K = T; or
(ii) K contains T.

According to (22), the terms of the syntactic object M in (23) (which is (18) under the revised notation) are M by the base step, and δ, L, γ, K, α and β by the recursive step, given that M contains δ, L, γ, K, α and β. The two problems noted above thus do not arise. As stated in (22), *term of* is a relation between syntactic objects; given that $\{\alpha\}$ in (20) does not conform to a possible syntactic object according to (20), it is not a term of M or any other syntactic object. Therefore, the number of terms resulting from an adjunction operation is the same as the one resulting from a substitution operation.

(23) $M = \{\underline{\alpha}, \{\delta, \{\{\{\alpha\}\}, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}\}\}$

$\uparrow$

$\delta \leftrightarrow L = \{\underline{\{\{\alpha\}\}}, \{\gamma, \{\alpha, \{\alpha, \beta\}\}\}\}$

$\uparrow$

$\gamma \leftrightarrow K = \{\underline{\alpha}, \{\alpha, \beta\}\}$

$\uparrow$

$\alpha \leftrightarrow \beta$

4. Minimal, Maximal, and Intermediate Projections

As discussed in Chapter 3.1, bare output conditions require that minimal and maximal projections be distinguished from intermediate projections, since only minimal and maximal projections receive an interpretation at the interface and hence are accessible to the computational system. Intuitively, minimal projections are lexical items, maximal projections are projections which project no further, and intermediate projections are neither minimal nor maximal. Evidence for taking intermediate projections to be inaccessible to the computational system comes from the linearization of structures involving a complex specifier. Consider how a structure such as (26), for example, should be linearized in accordance with the definitions of command and the LCA given in (4) and (5) and repeated in (24) and (25).

(24) *Command*:
Where α and β are accessible to C-hl, α commands β iff:
(i) α does not dominate β; and
(ii) the first category dominating α also dominates β.

(25) *Linear Correspondence Axiom (LCA):*
A category α precedes a category β iff:
(i) α asymmetrically commands β; or
(ii) γ precedes β and γ dominates α.

(26) $M = \{\underline{saw}, \{\{the\ \{the, man\}\}, \{saw, \{saw, it\}\}\}\}$

$\uparrow$

$L = \{\underline{the}\ \{the, man\}\} \leftrightarrow K = \{\underline{saw}, \{saw, it\}\}$

$\uparrow$ $\uparrow$

$the \leftrightarrow man$ $saw \leftrightarrow it$

If the intermediate projection K in (26) were accessible to the computational

system and thus able to command, it would asymmetrically command, and should therefore precede, *the* and *man*. By the recursive step of the LCA in (25), the categories dominated by K, namely *saw* and *it*, should then precede *the* and *man*. In turn, since L asymmetrically commands *saw* and *it*, *the* and *man* should precede *saw* and *it*, in accordance with (25ii). This however yields a violation of the asymmetry requirement of a linear order; *the* and *man* should precede and be preceded by *saw* and *it*. This leads us to conclude that intermediate projections are inaccessible to the computational system and cannot command. Thus, given that *the* and *man* are not commanded by K in (26), *the* and *man* should precede *saw* and *it* according to (25ii), as expected.

It should be noted however that at the point in the derivation where L in (26) merges with K, K must be accessible to the computational system. In other words, the notions of minimal, maximal and intermediate projection must be computed at each step of a derivation. These notions can be defined as in (28)-(30) in terms of the definition of domination given in (13) and repeated here in (27):

(27) *Domination*:
Given a syntactic object K = {$\underline{\gamma}$, {δ, μ}} or K = { $\underline{\{\gamma\}}$, {δ, μ}}, K dominates a syntactic object α iff:
(i) for any set L such that L ∈ K, α ∈ L; or
(ii) K dominates M and M contains α.

(28) *Minimal Projection:*
A syntactic object α is a minimal projection iff there is no syntactic object β such that α dominates β.

(29) *Maximal Projection*:
A syntactic object α is a maximal projection iff there is no syntactic object β such that β dominates α and β has the same label as α.

(30) *Intermediate Projection:*
α is an intermediate projection iff α is a syntactic object which is not a minimal or a maximal projection

To see the definitions of (28)-(30) at work, let us examine derivations involving instances of multiple specifiers and multiple adjunction. Consider the derivational steps involved in the formation of the verb phrase headed by the light verb *du* in (31), for instance (see Chapters 4 and 6):

(31) Basque:

a. Jonek Miren maite du
Jon-subj Miren-object love light-verb
'Jon loves Mary.'

b. [Jonek T [Miren [(Jonek) [maite+du [(maite) (Miren)]]]]]

The computational system selects *maite* and *Miren* and merges them, forming K in (32) below. Before these two lexical items merge, they are both minimal and maximal projections, according to (28) and (29); they dominate and are dominated by no syntactic objects. After K is formed, *maite* and *Miren* are still minimal projections since they dominate no syntactic objects. Since they are now dominated by K, their status as maximal projections may change. The label of K is the same as the label of *maite*, which is *maite* itself (see section 1); hence, according to (29), although *Miren* is still a maximal projection after K is formed, *maite* is no longer a maximal projection. In turn, K is a maximal projection because it is dominated by no syntactic object and is not a minimal projection because it dominates *maite* and *Miren*.

(32) K = {<u>maite</u>, {maite, Miren}}
↑
maite ↔ Miren

The next steps of the derivation involve selection of the light verb *du*, which then merges with K in (32) forming L, as shown in (33) below. Like *maite* in (32), *du* in (33) is a minimal maximal projection (both a minimal and a maximal projection) before merging with K, and becomes a minimal nonmaximal projection after the merger, because in (33) *du* is dominated by L and the label of *du*, namely *du* itself, is the same as the label of L. On the other hand, K remains a nonminimal maximal projection after merger; although it is dominated by L in (33), the label of K is different from the label of L. Finally, L is a maximal projection because it is dominated by no syntactic object, and is not a minimal projection because it dominates *du*, K, *maite* and *Miren*.

(33) L = {<u>du</u>, {du, K}}
↑
du ↔ K = {<u>maite</u>, {maite, Miren}}

Assuming a cyclic derivation for (31b), the main verb *maite* then moves from within K in (33) and adjoins to the light verb *du* of L, forming M in (34a), which then replaces *du* in L, forming X in (34b).

(34) a. $M = \{\{\underline{du}\}, \{maite, du\}\}$

$\uparrow$

maite $\leftrightarrow$ du

b. $X = \{\underline{du}, \{M, K\}\}$

In (34), M contains but does not dominate *du* or the moved *maite*; hence, M is a minimal projection according to (28), because it dominates no syntactic object. M is not a maximal projection according to (29), because its label is the same as the label of X, which dominates it. Therefore, a two-segment category formed by adjunction inherits the projection status of the target of adjunction. In the case of adjunction to heads, for instance, a "larger head" is formed, an issue to which we return below (see chapters 4 and 6 for a general discussion of instances where a head is more than just a lexical item). As far as the status of the moved verb *maite* is concerned, it dominates no syntactic object and is dominated by X by the recursive step of (27), whose label is the same as the label of the light verb *du*; hence, the moved V is a minimal maximal projection, according to the definitions in (28) and (29) (on the reasons why this result is irrelevant to the Uniformity Condition on chains, see Chapter 4.3). Finally, X in (34b) is a maximal projection because it is dominated by no syntactic object, and is not a minimal projection, given that it dominates M and K by the base step of (27), and *du*, the moved *maite*, the trace of *maite*, and *Miren* by the recursive step.

The following steps of the derivation involve selection of *Jonek*, which then merges with X, forming W in (35) below. *Jonek* is a minimal maximal projection before and after merging with X, because in each derivational step *Jonek* dominates no syntactic object and is dominated by no syntactic object whose label is the same as its own label. As for X, recall that it was a nonminimal maximal projection before merging with *Jonek*. After merger, it remains a nonminimal projection in W since it still dominates the syntactic objects it did before merger, but becomes a nonmaximal category because it has the same label as W, which dominates it. Since X within W is neither a minimal nor a maximal projection, it is an intermediate projection, according to (30). Thus, although X was accessible to the computational system in (34), it becomes inaccessible after merging with *Jonek* in (35):

(35) $W = \{\underline{du}, \{Jonek, X\}\}$

$\uparrow$

Jonek $\leftrightarrow$ $X = \{\underline{du}, \{M, K\}\}$

Under the assumption that the light verb *du* in Basque has a strong feature, *Miren* moves from within W and merges with W, forming Y in (36). The moved *Miren* in (36) is a minimal projection because it dominates no syntactic object and a maximal projection because it does not have the same label as the object which dominates it, namely Y. In turn, W, which was a nonminimal maximal projection

before merging with the moved *Miren*, becomes an intermediate projection after merger in (36); W is not a minimal projection because it dominates some syntactic objects and is not a maximal projection because it has the same label as Y, which dominates it. This sequence of derivational steps again shows that the projection status of a given syntactic object may change as the derivation proceeds.

(36) Y = {du, {Miren, W}}
↑
Miren ↔ W = {du, {Jonek, X}}

Let us now turn to instances of multiple adjunction to a head, which has consequences for checking theory, as will be discussed in section 6. Consider the T head of the *there*-existential construction in (37), for instance. Before verb movement takes place, the object Z is formed as shown in (38), where the internal structure of K is irrelevant for the point under consideration.

(37) a. There is a cat on the mat

b. [there [is+T [(is) [a cat on the mat]]]]

(38) Z = {T, {there, M}}
↑
there ↔ M = {T, {T, L}}
↑
T ↔ L = {is, {is, K}}
↑
is ↔ K = [a cat on the mat]

After the verb moves and adjoins to T overtly, the object W in (39a) is formed. W thus replaces T in M within (38), forming the object Y in (39b), which in turn replaces M within Z in (38), forming X in (39c).

(39) a. W = {{{T}}, {is, T}}
↑
is ↔ T

b. Y = {T, {W, L}}

c. X = {T, {there, Y}}

As seen above, an object such as W in (39b) is a minimal nonmaximal

projection. It is not a maximal projection because it has the same label as Y, which dominates it, and it is a minimal projection because it dominates no syntactic object (W in (39a) contains but does not dominate *is* or T). As discussed in Chapter 4.1, the relevant set FF of formal features of *a cat* moves from within K in the covert component and adjoins to W, forming the object R in (40a). R then replaces W within Y in (39b), forming S in (40b), which in turn replaces Y within X in (39c), forming U in (40c).

(40) a. $R = \{\underline{\{T\}}, \{FF, W\}\}$

$FF \leftrightarrow W = \{\underline{\{T\}}, \{is, T\}\}$

$is \leftrightarrow T$

b. $S = \{\underline{T}, \{R, L\}\}$

c. $U = \{\underline{T}, \{there, S\}\}$

R in (40b) is not a maximal projection because it has the same label as S, which dominates it. On the other hand, although R contains FF and W by the base step of the definition of containment (cf. (21)), and contains *is* and T by the recursive step, R dominates no syntactic object; hence R is a minimal projection. Again, the syntactic object formed by adjunction has the same projection status as the target for adjunction; thus, R "inherits" its status as a minimal nonmaximal projection from W, which in turn inherits it from T. Another way to state this, as observed above, is that adjunction to a head creates a "larger head". See section 6 below for further discussion.

Notice that, according to the definitions of projections in (28)-(30), the set of formal features FF in (40) is a minimal maximal projection, since it dominates no syntactic object and its label is different from the label of the categories which dominate it (S and U). The trace of FF, however, is not a projection, because it is part of a lexical item and enters into neither domination nor containment relations (cf. (13) and (14)). The fact that the chain CH = (FF, FF) is not uniform with respect to its projection status is not problematic if at LF word-level elements are immune to the algorithm that determines projection status, as stated by the Word Interpretation Principle (see Chapter 4.3). It is also possible that the notion of projection is not defined for sets of formal features, but is only defined for categories (see Chomsky 1995:270), where a category is a syntactic object (cf. (12)) which is not a set of formal features of a lexical item. We leave this issue open. For concreteness, we continue to use the notions of minimal, maximal and intermediate projection in (28)-(30).

5. Specifiers and Complements

Given the definitions of projection status in (28)-(30), repeated below in (41)-(43), and the definition of sisterhood in (44), the notions of specifier and complement can be defined as in (45) and (46):

(41) *Minimal Projection:*
A syntactic object α is a minimal projection iff there is no syntactic object β such that α dominates β.

(42) *Maximal Projection*:
A syntactic object α is a maximal projection iff there is no syntactic object β such that β dominates α and β has the same label as α.

(43) *Intermediate Projection:*
α is an intermediate projection iff α is a syntactic object which is not a minimal or a maximal projection

(44) *Sisterhood:*
The syntactic objects α and β such that $\alpha \neq \beta$ are sisters iff for every syntactic object γ such that γ contains α, γ also contains β, and conversely.

(45) *Specifier*:
A syntactic object α is a specifier of the head H iff α is a sister of an intermediate projection P such that P has the same label as H.

(46) *Complement*:
A syntactic object α is a complement of the minimal nonmaximal projection H iff α is a sister of H.

Consider the syntactic object M in (47) below in light of the definitions in (45) and (46). In (47), *he* and K, on the one hand, and *saw* and *it*, on the other, are contained by the same elements; hence, *he* is a sister of K, and *saw* is a sister of *it*, according to (44). Given that *he* is a sister of K and K is an intermediate projection, *he* is the specifier of the head of K (i.e. *saw*), according to (45). In turn, since *it* is a sister of *saw* and *saw* is a minimal nonmaximal projection, *it* is the complement of *saw*, according to (46).

(47)
$$M = \{\underline{saw}, \{he, \{saw, \{saw, it\}\}\}\}$$
$$\uparrow$$
$$he \leftrightarrow K = \{\underline{saw}, \{saw, it\}\}$$
$$\uparrow$$
$$saw \leftrightarrow it$$

The definition of complement in (46) may be revised to extend to instances where there are syntactic objects adjoined to the head H itself as in (48), where the verb has moved from within VP and adjoined to T, forming K. According to the definition of complement in (46), VP is a complement of T before the verb moves, but a complement of K after the verb moves. Although the revision is straightforward, we will not pursue the matter here, because the notions *specifier* and *complement* are merely descriptive terms which will be subsumed under the notions of checking and internal domains (see section 8).

(48)
$$L = \{\underline{T}, \{K, VP\}\}$$
$$\uparrow$$
$$K = \{\{\underline{\{T\}}\}, \{T, V\}\} \leftrightarrow VP$$

6. X^{0max} and Sublabels

As discussed in section 4, adjunction to a minimal projection creates a "larger head", that is, another minimal projection. In the case of U in (40), repeated below in (49), for instance, W and R are minimal nonmaximal projections which have the same label as T, also a minimal nonmaximal projection.

(49)
$$U = \{\underline{T}, \{there, S\}\}$$
$$\uparrow$$
$$there \leftrightarrow S = \{\underline{T}, \{R, L\}\}$$
$$\uparrow$$
$$R = \{\{\underline{\{T\}}\}, \{FF, W\}\} \leftrightarrow L = [\text{ is a cat on the mat }]$$
$$\uparrow$$
$$FF \leftrightarrow W = \{\{\underline{\{T\}}\}, \{is, T\}\}$$
$$\uparrow$$
$$is \leftrightarrow T$$

Chomsky (1995:245) uses the term X^{0max} to refer to the "largest" among heads of the same type which enter into checking relations. In (49), for instance, R corresponds to T^{0max}. A given syntactic object α can then enter into a checking relation with X^{0max} if α enters into a checking relation with a sublabel of X^{0max}, that

is, either a feature of X or a feature of a syntactic object adjoined to X (see (52) below for a definition).

Given the definitions of projections and containment proposed in sections 4 and 2.4, X^{0max} can be defined as in (50):

(50) *X^{0max}:*
The syntactic object K is a X^{0max} projection iff:
(i) K is a minimal projection; and
(ii) there is no minimal projection L such that L contains K.

According to (50), among the minimal projections R, FF, W, *is*, and T in (49), only R qualifies as an X^{0max} projection: whereas FF, W, *is* and T are contained by R, no other minimal projection contains R. Since R has the same label as T, R is said to be a T^{0max} projection in (49).

Sublabels can now be defined as in (52), based on the notion of term given in (51) (a repetition of (22)):

(51) *Term*:
T is a term of a syntactic object K iff:
(i) K = T; or
(ii) K contains T.

(52) *Sublabel:*
σ is a sublabel of K iff:
(i) σ is a formal feature of a term of K; and
(ii) K is a X^{0max} projection.

Let us identify the sublabels of the T^{0max} projection R in (49). R has the following terms: R itself by (51i) and FF, W, *is* and T by (51ii). According to (52), each formal feature of FF, *is* and T is thus a sublabel of T^{0max}. As for the complex syntactic objects W and R, their formal features are the formal features of the elements that they contain; hence, W and R do not themselves contribute any sublabels to the set of sublabels of T^{0max}.

7. Command

7.1. Tentative Definition

Let us reconsider the definition of command given in (4) and repeated below in (53), which has been used thus far.

(53) *Command*:
Where α and β are accessible to C-hl, α commands β iff:
(i) α does not dominate β; and
(ii) the first category dominating α also dominates β.

Given that the recursive step of the definition of domination in (27ii) states that domination is a transitive relation, (53ii) need not be restricted to the first category dominating α. According to (27ii), if the first category dominating α also dominates β, then every category that dominates α also dominates β. We can therefore simplify the definition of command in (53) and replace "first category" in (53ii) with the simpler quantification "every category", as in (54):

(54) *Command*:
Where α and β are accessible to C-hl, α commands β iff:
(i) α does not dominate β; and
(ii) every category dominating α also dominates β.

Notice also that it is not necessary to include in the definition of command the requirement that β not dominate α (cf. Chomsky 1995:339). This follows from the conjunction of (54ii) and the irreflexivity property of domination discussed in section 2.2. In order to see this, consider whether α commands β in (55), for instance.

(55) $\beta = \{\gamma, \{\delta, \alpha\}\}$
$\uparrow$
$\delta \leftrightarrow \alpha$

According to (54ii), in order for α to command β, every category dominating α must also dominate β. Since β dominates α in (55), β is required to dominate itself in order for α to command β. This is not permitted, given that domination is irreflexive (see section 2.2). Since there is a category which dominates α, namely β, which does not dominate β, α does not command β in (55), according to the definition in (54). Put generally, a category α does not command a category β which dominates it.

7.2. Irreflexivity

The definition of command in (54) allows an element to command itself. Consider the command relation between α and itself in the structure in (56) below, for instance. In (56), α does not dominate itself, because domination is irreflexive;

hence (54i) is satisfied. In turn, (54ii) is obviously satisfied: the only category dominating α, namely K, dominates α. Therefore, according to (54), α in (56) commands itself.

(56) $K = \{\underline{\gamma}, \{\alpha, \beta\}\}$
$\uparrow$
$\alpha \leftrightarrow \beta$

However, Binding Theory considerations indicate that command should be an irreflexive notion (see Lasnik and Uriagereka 1988: fn. 14). As discussed in Chapter 4.3, a sentence such as (57a) below, represented in (57b), shows that a name cannot have the same referent as a commanding expression. Consider the predictions of this coreference restriction for a sentence such as (58a), with its verb phrase represented in (58b):

(57) a. Bacon puzzled Bacon.

b. L = {<u>puzzled</u>, {Bacon, K}}
↑
Bacon ↔ K = {<u>puzzled</u>, {puzzled, Bacon}}
↑
puzzled ↔ Bacon

(58) a. Bacon left.

b. {<u>left</u>, {Bacon, left}}

As shown in (56), in a structure such as (58b), *Bacon* commands itself, according to the definition in (54). This however gives rise to a contradiction. Since the Binding Theory requires that names not be interpreted as coreferential with any commanding element, *Bacon* in (58b) cannot refer to the entity that *Bacon* refers to. In order to prevent such a state of affairs, it is thus necessary to take command to be irreflexive, as in (59):

(59) *Command*:
Where α and β are accessible to C-hl, α commands β iff:
(i) α does not dominate β;
(ii) $\alpha \neq \beta$; and
(iii) every category dominating α also dominates β.

According to the requirement in (59ii), *Bacon* in (58b) (and α in (56)) cannot be

taken to be α and β of the definition of command; hence *Bacon* does not command itself in (58b) and the Binding Theory restriction on the interpretation of names is not violated. (57b), on the other hand, involves two instances of *Bacon*; thus the first instance can be taken as α in (57) and the second instance as β. If so, the first instance commands the second instance and the Binding Theory requires that they not be understood as coreferential, which corresponds to the interpretation of (57a).

8. Domains

8.1. Tentative Definitions

Let us now consider the definitions of domains formulated in Chapter 6.1, which define the configurations in which grammatical relations take place.

Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α:

(60) *Max(α):*
Max(α) is the smallest maximal projection dominating α.

(61) *Domain of CH (D(CH)):*
D(CH) is the set of categories/features dominated by Max(α) that are distinct from and do not contain α or *t*.

(62) *Minimal Domain of CH (Min(D(CH))):*
Min(D(CH)) is the smallest subset K of D(CH) such that for any $\gamma \in$ D(CH), some $\beta \in$ K reflexively dominates γ.

(63) *Internal Domain of α (Int(D(CH))):*
Int(D(CH)) is the subset L of Min(D(CH)) such that for any $\gamma \in$ L, γ is a sister of a projection of α.

(64) *Checking Domain of α (Check(D(CH))):*
Check(D(CH)) is the subset M of Min(D(CH)) such that M is the set-theoretic complement of Int(D(CH)).

The notions in (60)-(64) above are based on phrase-marker representations of syntactic objects. In the next sections, we discuss how (60)-(64) should be revised in order to be compatible with the set-theoretic notion of syntactic object adopted in the bare X'-Theory (see section 2.4). For the sake of brevity, we focus on the parts of the definitions in (60)-(64) which do not work properly if the definitions of syntactic object and domination assumed here are adopted.

8.2. Revisions

8.2.1. Max(α)

Let us begin the discussion with the notion of Max(α) in (60), repeated here in (65).

(65) *Max(α):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, Max(α) is the smallest maximal projection dominating α.

Let us make precise what "smallest" stands for in a representation such as (66), where V is a main verb, IO an indirect object, DO a direct object, v a light verb, and SU a subject. Take Max(V), for instance. Intuitively, the smallest maximal projection dominating V is VP = {V, {DO, V'}}.

(66)
$$\begin{array}{l} vP = \{\underline{v}, \{SU, v'\}\} \\ \quad\uparrow \\ SU \leftrightarrow v' = \{\underline{v}, \{v, VP\}\} \\ \qquad\uparrow \\ v \leftrightarrow VP = \{\underline{V}, \{DO, V'\}\} \\ \qquad\quad\uparrow \\ DO \leftrightarrow V' = \{\underline{V}, \{V, IO\}\} \\ \qquad\qquad\uparrow \\ V \leftrightarrow IO \end{array}$$

The revised definition of Max(α) in (67) below expresses the notion of "smallest maximal projection" through the notion of domination. According to (67), Max(V) cannot be vP, for instance, because VP is a maximal projection which dominates V but does not dominate vP. Hence, Max(V) in (67) is VP; the only other maximal projection that dominates V, namely vP, also dominates VP.

(67) *Max(α):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, Max(α) is the maximal projection P such that P dominates α and for every maximal projection $Q \neq P$, if Q dominates α, then Q dominates P.

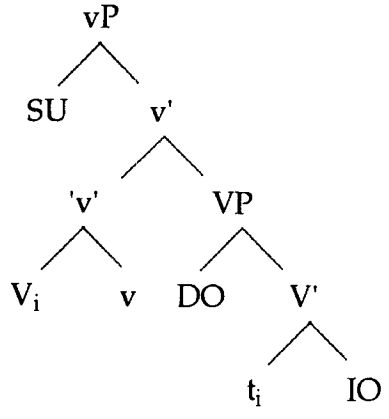
8.2.2. Domain

Consider now the definition of domain in (61), repeated below in (68).

(68) *Domain of CH (D(CH)):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, D(CH) is the set of categories/features dominated by Max(α) that are distinct from and do not contain α or *t*.

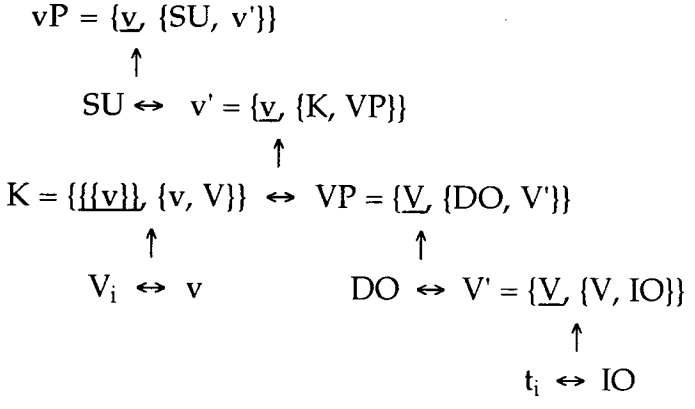
Applied to the chain CH = (V_i, t_i) of (69) below, the graph representation of (66) after the main verb adjoins to the light verb, the definition in (68) states that D(CH) is the set with the following members: SU, DO, IO and whatever these categories contain. VP, V', V_i and t_i are not members of D(CH) because they are — in some sense to be made precise (see below) — nondistinct from V_i; in turn, vP, v' and the two-segment category ['v', v] are not members of D(CH) because they contain V_i.

(69)



Consider the bare-phrase structure representation of (69) in (70).

(70)



One aspect in which the definition of D(CH) in (68) fails to yield the expected results in (70) regards the exclusion of *v* from the $D(V_i, t_i)$. The notion of containment in (68) is not sufficient to exclude *v* in (70) from $D(V_i, t_i)$; although the two segment category K contains V_i, the light verb itself does not contain V_i. The correct results can be obtained if we exclude the elements which have the same label as Max(α) from the definition of D(CH). Incorporating nondistinctiveness in terms of labels, the appropriate notion of domain needed for set-theoretic syntactic objects can then be defined as in (71):

(71) *Domain of CH (D(CH)):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, D(CH) is the set K such that for any $\gamma \in K$:
(i) γ is dominated by Max(α);
(ii) for any β, such that β has the same label as α, $\gamma \in \beta$; and
(iii) for any δ, such that δ has the same label as Max(α), $\gamma \in \delta$.

According to (71), D(v) in (70) is the set with the following members: SU, V_i, VP and whatever these categories contain. (71i) excludes vP = {v, {SU, v'}} from D(v) because vP is not dominated by Max(v) = vP (Recall that domination is an irreflexive relation; see section 2.2). When a domain is computed with respect to a trivial chain such as D(v) in (70), the conditions in (71ii) and (71iii) have the same effect, for *v* has the same label as Max(v) = vP. Thus, *v*, K = {{v}, {v, V}}, and v' = {v, {K, VP}}, in (70) are excluded from the D(v) by either (71ii) or (71iii). On the other hand, when a domain is computed with respect to a nontrivial chain such as $D(V_i, t_i)$ in (70), the conditions in (71ii) and (71iii) are not redundant; in the case at hand, for instance, V_i does not have the same label as $Max(V_i)$ = vP. Thus, $D(V_i, t_i)$ has the following members: SU, DO, IO and whatever these categories contain. As before, vP = {v, {SU, v'}} is not a member of $D(V_i, t_i)$ because it is not dominated by $Max(V_i)$ = vP (cf. (71i)); (71ii) excludes from $D(V_i, t_i)$ the following elements: V_i, VP, and t_i (a copy of V_i), all of which have the same label as V_i. Finally, (71iii) excludes v' = {v, {K, VP}}, K = {{v}, {v, V}} and *v*, all of which have the same label as $Max(V_i)$ = vP.

8.2.3. Minimal Domain

Let us now consider the definition of minimal domain in (62), repeated here in (72).

(72) *Minimal Domain of CH (Min(D(CH))):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, Min(D(CH)) is the smallest subset K of D(CH) such that for any $\gamma \in D(CH)$, some $\beta \in K$ reflexively dominates γ.

(72) is incompatible with the assumptions of the preceding sections in that it takes domination to be a reflexive relation. As discussed in section 2.2, if domination is defined along the lines of (27), repeated below in (73), it inherits irreflexivity from set-membership.

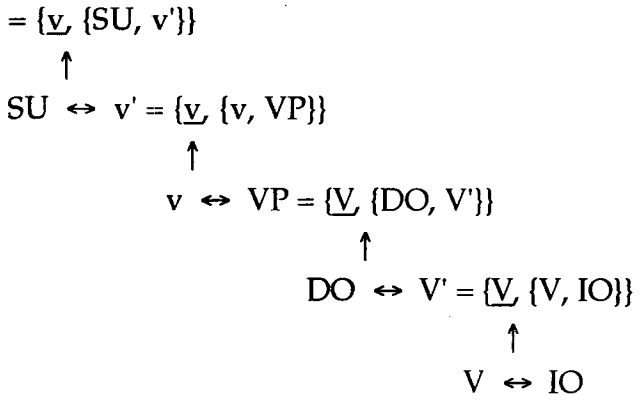
(73) *Domination:*
Given a syntactic object $K = \{\gamma, \{\delta, \mu\}\}$ or $K = \{\{\{\gamma\}\}, \{\delta, \mu\}\}$, K dominates a syntactic object α iff:
(i) for any set L such that $L \in K$, $\alpha \in L$; or
(ii) K dominates M and M contains α.

The expected relations can be established under an irreflexive notion of domination, if minimal domains are defined as in (74).

(74) *Minimal Domain of CH (Min(D(CH))):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, Min(D(CH)) is the subset K of D(CH) such that for any $\gamma \in K$, if some $Max(\beta) \neq Max(\alpha)$ dominates γ, then $Max(\beta)$ dominates $Max(\alpha)$.

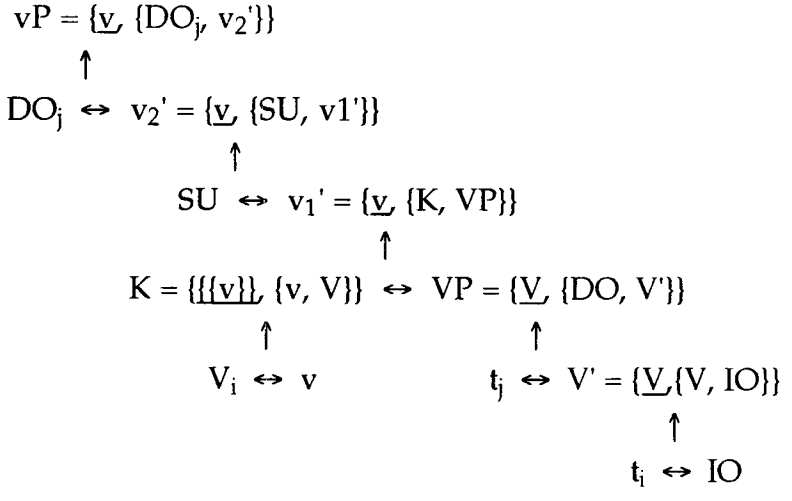
Let us consider the effects of (74), by reexamining the minimal domains of (66), repeated below in (75). Assume for the sake of discussion that SU, DO, and IO in (75) are just lexical items. Let us see why, according to (74), DO and IO, for instance, are part of Min(D(V)), but not part of Min(D(v)). According to the definition of domain in (73), D(V) is the set {DO, IO} and D(v) is the set {SU, VP, DO, V', V, IO}, since, by assumption, SU, DO, and IO are lexical items and contain no other element. The only two members of D(V) are dominated by VP (= $Max(\alpha)$ in (74)) and by Max(v) (= $Max(\beta)$ in (74)); given that vP dominates VP, the two members of D(V), namely, DO and IO, are also members of Min(D(V)), according to (74). As for D(v), we have to consider two cases: (i) SU and VP, which are dominated by only one maximal projection, namely vP; and (ii) DO, V', V and IO, which are dominated by vP and by VP. Since SU and VP are dominated by no maximal projection other than vP (= $Max(\alpha)$ in (74)), SU and VP are members of Min(D(v)); on the other hand, since VP (= $Max(\beta)$ in (74)) does not dominate vP (= $Max(\alpha)$ in (74)), the members of D(v) which are dominated by VP, namely DO, V', V and IO, are not members of

Min(D(v)), according to (74).

(75)


8.2.4. Internal Domain

Consider now the diagram in (76) below, formed after DO in (70) moves, creating the chain CH = (DO_j, t_j).

(76)


In (76), Max(v) is vP; D(v) involves DO_j, SU, V_i, VP and whatever these categories contain, and Min(D(v)) is the set {DO_j, SU, V_i, VP}. As discussed in Chapter 4.6, DO_j and V_i must fall within the checking domain of *v* because they enter into checking relations with *v*. Given the definitions of internal and checking domains in (63) and (64), repeated below in (77) and (78), the question then is whether the definition in (78) does not incorrectly entail that both DO_j and V_i fall within the internal domain of *v* and, consequently, not within the checking domain of *v*, which is the set-theoretic complement of Int(D(v)).

Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α:

(77) *Internal Domain of α (Int(D(CH))):*
Int(D(CH)) is the subset L of Min(D(CH)) such that for any $\gamma \in L$, γ is a sister of a projection of α.

(78) *Checking Domain of α (Check(D(CH))):*
Check(D(CH)) is the subset M of Min(D(CH)) such that M is the set-theoretic complement of Int(D(CH)).

Under plausible assumptions, this unwelcome result can be prevented by the Principle of Chain Integrity given in (71) (see Chapter 5.7):

(79) *Principle of Chain Integrity:*
Only entire chains enter into C-hl operations.

The intuitive idea is that chains are discontinuous objects; thus, it is not the case that all the links of the chains $CH_1 = (V_i, t_i)$ and $CH_2 = (DO_j, t_j)$ in (76) are sisters of a projection of *v*. Put differently, only trivial chains can be part of an internal domain. Incorporating this idea to (77), the notion of internal domain can be revised as in (80).

(80) *Internal Domain of α (Int(D(α))):*
Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α, Int(D(CH)) is the subset L of Min(D(CH)) such that for any $\gamma \in L$, γ is a nontrivial chain and is a sister of a projection of α.

According to (80), neither DO_j nor V_i in (76) are in the Int(D(v)) because they are not trivial chains; rather they each head a nontrivial chain. Given that DO_j and V_i are in Min(D(v)), according to (74), but are not in Int(D(v)), according to (80), (78) states that they are in Check(D(v)), as desired.

8.3. Final Definitions

With the revisions in section 8.2, the final definitions of grammatical domains are as follows:

Where α is a feature matrix or a head #X# and CH is a given chain (α_i, t_i) or (the trivial chain) α:

(81) *Max(α):*
Max(α) is the maximal projection P such that P dominates α and for every maximal projection $Q \neq P$, if Q dominates α, then Q dominates P.

(82) *Domain of CH (D(CH)):*
D(CH) is the set K such that for any $\gamma \in K$:
(i) γ is dominated by Max(α);
(ii) for any β, such that β has the same label as α, $\gamma \in \beta$; and
(iii) for any δ, such that δ has the same label as Max(α), $\gamma \in \delta$.

(83) *Minimal Domain of CH (Min(D(CH))):*
Min(D(CH)) is the subset L of D(CH) such that for any $\gamma \in$ L, if some $\text{Max}(\beta) \neq \text{Max}(\alpha)$ dominates γ, then Max(β) dominates Max(α).

(84) *Internal Domain of α (Int(D(α))):*
Int(D(CH)) is the subset X of Min(D(CH)) such that for any $\gamma \in X$, γ is a nontrivial chain and is a sister of a projection of α.

(85) *Checking Domain of α (Check(D(CH)))*
Check(D(CH)) is the subset Y of Min(D(CH)) such that Y is the set-theoretic complement of Int(D(CH)).

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PORTUGUÊS BRASILEIRO

Uma viagem diacrônica

Homenagem a Fernando Tarallo

RIZZI, L. "Ristrutturazione", *Rivista di Grammatica Generativa, 1*, pp. 1-54, 1976.

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VII
DIREÇÃO DE CLITICIZAÇÃO, OBJETO NULO E PRONOME TÔNICO NA POSIÇÃO DE OBJETO EM PORTUGUÊS BRASILEIRO

Jairo M. Nunes

1. Introdução

Tem-se defendido tanto dentro do quadro teórico da Teoria da Variação (cf. Omena, 1978; Tarallo, 1983; Duarte 1986; Corrêa, 1991, entre outros), quanto dentro do quadro teórico da Teoria Gerativa (cf. Galves, 1989; Cyrino, 1990; Kato 1991; entre outros), que o português brasileiro está passando por um processo de perda dos clíticos acusativos de terceira pessoa. Esse processo deu origem a uma extensão dos contextos em que o objeto nulo é aceito em português brasileiro quando comparado ao português europeu, (cf. Raposo, 1986), bem como ao aparecimento de pronomes tônicos na posição de objeto direto, construção agramatical em português europeu.

Como os estudos variacionistas (cf. referências acima) têm evidenciado, os clíticos acusativos de terceira pessoa não fazem parte do vernáculo (no sentido de Labov, 1972) do português brasileiro. Ao contrário, o uso dessas formas está associado a aprendizado escolar, revela grau de instrução elevado e é identificado com língua escrita e estilo formal. Vale notar ainda que, nos contextos em que são usados, os clíticos acusativos de terceira pessoa não obedecem à distribuição dos demais clíticos, como exemplificado em (1):

(1) a. *Me* chame amanhã.
b. *Te* chamo amanhã.

c. *Lhe* telefono amanhã.
d. **O* chamo amanhã.

Neste trabalho pretendo mostrar que todas essas características do português brasileiro moderno decorrem de uma mudança na direção de cliticização fonológica ocorrida no século passado, que impossibilitou o licenciamento da sílaba dos clíticos acusativos de terceira pessoa. O trabalho está organizado da seguinte forma: na seção 2 abordarei brevemente a origem dos clíticos acusativos de terceira pessoa; na seção 3 discutirei o licenciamento do *onset* da sílaba dos clíticos acusativos de terceira pessoa em português europeu moderno, em português antigo e em português brasileiro moderno; e na seção 4 tratarei da mudança de cliticização fonológica no português brasileiro e de suas conseqüências.

2. Origem dos clíticos acusativos de terceira pessoa

Os clíticos acusativos de terceira pessoa no português desenvolveram-se a partir dos pronomes demonstrativos latinos *illum/illam/illud*. Ao contrário da maioria das outras línguas românicas em que os clíticos acusativos de terceira pessoa preservaram o /l/ dos demonstrativos latinos (v.g. francês: *le*; espanhol: *lo*), o português parece ter perdido o *onset* da sílaba do clítico, o que deu origem às formas superficiais *o(s)*, *a(s)*. No entanto, o fato de essas formas poderem superficializar-se como *lo(s)*, *la(s)* ou *no(s)*, *na(s)* depois de algumas formas verbais pode estar indicando que, na verdade, a sílaba desses clíticos tenha um *onset* subjacente.

Esta é a linha de raciocínio que aqui pretendo seguir. Minha hipótese é que os clíticos acusativos de terceira pessoa em português não perderam o *onset* de suas sílabas. Esse *onset* será tido como subespecificado subjacentemente, necessitando, portanto, ser licenciado por processos outros que não o licenciamento pelo nódulo da sílaba. Na próxima seção examinarei como essa necessidade é satisfeita em português antigo, assim como nos dialetos modernos do português europeu e brasileiro.

3. Direção de cliticização e licenciamento do clítico

3.1. Português europeu moderno

De acordo com Carvalho (1989), os clíticos do português europeu moderno são sempre enclíticos fonologicamente, qualquer que seja a palavra precedente. Em outras palavras, ao resultado do processo sintático de colocação dos clíticos aplica-se um processo de cliticização fonológica da direita para a esquerda, como ilustrado em (2), (cf. Carvalho, 1989):

(2) a. Quem-*me* vê?
b. Não-*te* vi.
c. Já-*te* digo.
d. Vamo-*nos* encontrar.

A cliticização fonológica da direita para a esquerda, portanto, é uma das razões que bloqueiam sentenças iniciadas por clítico em português europeu, como exemplificado em (3):

(3) **Me* diga uma coisa.

O fato de a direção de cliticização fonológica ser da direita para a esquerda, em português europeu moderno, provê várias maneiras para que a sílaba do clítico tenha seu *onset* licenciado. Em particular, dois processos específicos são ativados quando a palavra em que o clítico se apóia é um verbo. O primeiro envolve a assimilação das terminações em /s/ (representado ortograficamente por *s* ou *z*) e /r/ aos traços presentes no *onset* da sílaba do clítico, como exemplificado em (4):

(4) a. ver + *o* —< vê-*lo*
b. fizemos + *o* — < fizemo-*lo*

A segunda regra específica no que diz respeito aos clíticos acusativos de terceira pessoa envolve multiassociação do traço [+nasal] quando o clítico segue-se a uma forma verbal terminada em ditongo nasal, como ilustrado em (5):

(5) compraram + *o* —< compraram-*no* ([kõprarãwno])

No que tange à aquisição da linguagem, dados simples e robustos como *vê-lo*, *fizemo-lo* e *compraram-no*, por exemplo, presumivelmente levam a criança a postular um *onset* subespecificado para a sílaba dos clíticos acusativos de terceira pessoa, uma vez que a aplicação das duas regras mencionadas acima se restringem a esses clíticos.

Essas regras, no entanto, aplicam-se somente quando há incorporação sintática do clítico à forma verbal (i.e., essas regras são lexicais) e não quando o clítico está apoiado fonologicamente em palavras outras que não verbos terminados em /s/, /r/ ou ditongo nasal, como se pode ver abaixo:

(6) a. Que amor-*o* fez sofrer?
b. *Que amô-*lo* fez sofrer?

(7) a. Todos-*o* fizeram sofrer.
b. *Todo-*lo* fizeram sofrer.

(8) a. João não-*o* viu.
b. *João não-*no* viu.

Como as regras exemplificadas em (4) e (5) não fazem parte do conjunto de regras pós-lexicais, o *onset* da sílaba dos clíticos de (6)-(8) deve ser licenciado por outros processos. Esses processos podem ser divididos em preservadores e reestruturadores, dependendo da superficialização da sílaba dos clíticos. Vejamos alguns deles.

Um dos processos que preservam a estrutura da sílaba do clítico envolve a possibilidade de multiassociação de elementos vocálicos com o traço [+alto] (vogais e semivogais), configurando uma situação de ambissilabicidade. No caso dos clíticos acusativos de terceira pessoa, esse processo permite que o *onset* de suas sílabas seja preenchido tanto lexicalmente, como pós-lexicalmente, conforme ilustrado em (9) e (10), respectivamente:

(9) a. comi-*o* ([komiyu])
b. atrai-*a* ([atrayya])
c. compro-*a* ([kõpruwa])
d. comprou-*a* ([kõprowwa])

(10) a. Nem a sucuri-*a* fez fugir. ([sukuriya])
b. Quem-*o* viu? ([kẽỹỹu])
c. Só o peru-*a* bicou. ([peruwa])
d. João não-*a* viu. ([nãw̃wa])

Outro processo preservador de estrutura que pode aplicar-se pós-lexicalmente envolve o chamado *maximal onset principle*, (cf. Goldsmith, 1990). *Grosso modo*, esse princípio requer que, não havendo restrição fonotática, fonemas consonantais intervocálicos sejam associados ao *onset* da sílaba seguinte e não à coda da sílaba precedente. Como em português as únicas consoantes que podem aparecer na posição de coda são /r/, /s/ e /l/, o *maximal onset principle* tem o efeito de reassociar essas consoantes ao *onset* da sílaba do clítico, desassociando traços incompatíveis, como exemplificado abaixo:

(11) Que amor-*o* fez sofrer? ([a.mo.ru])
(12) Que mal-*o* atingiu? ([ma.lu])
(13) Todos *o* fizeram sofrer. ([to.do.zu])

Quando a palavra em que o clítico apóia-se fonologicamente termina em /a/, como exemplificado em (14) abaixo, nenhum dos processos mencionados acima, no entanto, pode licenciar o *onset* da sílaba do clítico. Nesse caso, ocorre uma reestruturação de modo que a questão do licenciamento do *onset* torna-se irrelevante porque a sílaba do clítico funde-se à sílaba precedente.

(14) a. compra-*o*
b. compra-*a*

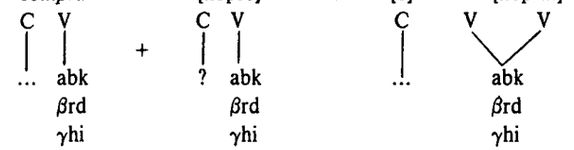
Em (14) a. o [-] reduzido da forma verbal funde-se com a vogal do clítico, superficializando-se como [O], como ilustrado em (14) a'.:

(14) a'. [kõprɐ] + *u* —< [kõprɔ]

Já em (14) b. o *obligatory contour principle* (cf. Goldsmith, 1990, para uma avaliação de diferentes formulações) provoca uma reestruturação na seqüência de vogais idênticas permitindo que o clítico superficialize-se numa estrutura bem formada, como representado em (15):

(15) a. *compra* [kõprð] + a [ð] → [kõpra:]

b.



Em suma, o fato de que a cliticização fonológica dá-se da direita para a esquerda em português europeu moderno permite que o *onset* da sílaba dos clíticos acusativos de terceira pessoa seja licenciado mesmo quando o clítico não se incorpora sintaticamente à palavra que o precede. Isso equivale a dizer que, se a direção de cliticização em português europeu fosse da esquerda para a direita, uma outra situação viria à tona em relação ao licenciamento do *onset* da sílaba do clítico. Mais à frente teremos condições de avaliar essa possibilidade, quando da abordagem ao português brasileiro. Antes, porém, gostaria de voltar um pouco no tempo e verificar o estado de coisas do português antigo quanto à direção de cliticização fonológica e ao licenciamento do *onset* da sílaba do clítico.

3.2. Português antigo

Em português antigo o *onset* da sílaba dos clíticos acusativos de terceira pessoa já se apresentava enfraquecido. Esporadicamente, porém, podia superficializar-se, como exemplificado em (16), (cf. Mattos e Silva, 1990):

(16) a. pois *lo* San Beento preguntou
b. pois *lo o* meni˜ho vio

Embora devamos ser extremamente cautelosos em postular uma certa direção de cliticização fonológica para uma língua morta e tenhamos de lidar com todos os vieses que documentos escritos impõem, parece que podemos tomar a direção de cliticização em português antigo como também sendo da direita para a esquerda. A maior evidência para issso é que as regras lexicais específicas que licenciam o *onset* da sílaba do clítico em português europeu moderno também podiam aplicar-se pós-lexicalmente, como discutido abaixo.

De acordo com Williams (1938), o mesmo processo de assimilação que ocorre com a seqüência *verbo + clítico* em português europeu moderno ocorria em português antigo quando clíticos acusativos de terceira pessoa seguiam-se a quase toda palavra terminada em /r/ ou /s/, como exemplificado em (17), (cf. Williams, 1938):

(17) a. melho-*la* fezestes (melhor + *a*)
b. Deu-*lo* sabe poi-*la* vi (Deus + *o*; pois + *a*)
c. a toda-*lo* el diria (todas + *o*)
d. o bom rei en seu podê'-*la* ten (poder + *a*)
e. a vo'-*lo* devo muit' agradecer (vós + *o*)
f. volla averees (vós + *o*)

Não entrarei aqui na questão de estabelecer se a cliticização fonológica em português antigo exemplificada em (17) estava ou não associada à incorporação sintática do clítico à palavra anterior. Para os nossos propósitos, basta a observação de que a direção de cliticização era da direita para a esquerda em português antigo e que, portanto, o *onset* da sílaba do clítico presumivelmente podia ser licenciado de modo semelhante ao licenciamento do português europeu moderno.

Quanto à regra correspondente à multiassociação de [+nasal] do português europeu moderno, é provável que em português antigo uma regra de assimilação progressiva precedeu a regra de multiassociação de [+nasal], já que a letra *n* em final de palavras deve ter representado uma verdadeira consoante nasal antes de ser usada como marca de nasalização da vogal precedente. De qualquer forma, o que é interessante é que, embora mais raramente, esta regra também podia aplicar-se pós-lexicalmente e não somente lexicalmente como em português europeu moderno, como se vê em (18):

(18) a. bem-*no* (bem + *o*)
b. que'-*no* (quem + *o*)

Em suma, na medida em que construções como (17) e (18) possam ser tomadas como evidência de que a direção de cliticização fonológica em português antigo era da direita para a esquerda, podemos dizer que o português antigo deve ter tido não só os processos disponíveis em português europeu moderno, mas também processos pós-lexicais adicionais, como a multiassociação de [+nasal] e assimilação de /r/ e /s/, que permitiam seqüências que correspondem a construções agramaticais em português europeu moderno compare (6) e (8) com (17) e (18).

3.3. Português brasileiro moderno

No português brasileiro atual a direção de cliticização fonológica claramente é da esquerda para a direita, como exemplificado em (19):

(19) a. Já *te*-vi.
b. João vai *te*-ver.
c. João tinha *me*-visto.
d. Vamos *nos*-encontrar.

A cliticização da esquerda para a direita, portanto, permite que clíticos outros que não os acusativos de terceira pessoa ocorram em início de sentença, como exemplificado em (20), diferentemente do português europeu (cf. 3, acima):

(20) *Me* diga uma coisa.

Uma vez que tanto o português antigo quanto o português brasileiro moderno exibem cliticização da direita para a esquerda como vimos acima, é plausível tomar a cliticização da esquerda para a direita como uma inovação do dialeto brasileiro. Na próxima seção tentarei mapear o surgimento dessa inovação, bem como discutirei o licenciamento do *onset* da sílaba do clítico num sistema de cliticização da esquerda para a direita.

4. Mudança na direção de cliticização e suas conseqüências

Uma maneira indireta de identificar o momento da mudança na direção de cliticização fonológica no português brasileiro pode

ser viabilizada através do mapeamento diacrônico da variação *verbo + clítico* vs. *clítico + verbo* em início de sentença. Como vimos anteriormente, um sistema com cliticização da direita para a esquerda, como o português europeu moderno, proíbe construções com clítico em início de sentença. Assim, sentenças com clíticos em posição inicial no português brasileiro constituem um indício da mudança na direção de cliticização fonológica.

Para realizar esse mapeamento, vou me valer do estudo diacrônico de Cyrino (1990), que entre outras coisas retrata a variação entre ênclise e próclise a verbos no imperativo afirmativo, que em geral ocorrem em início de sentença. De acordo com Cyrino, a porcentagem de ênclise a verbos no imperativo afirmativo registrada em peças de teatro cai de 100% na primeira metade do século XVIII para 0% na segunda metade do século XX. As primeiras instâncias de próclise a imperativo afirmativo ocorrem na segunda metade do século XIX, com uma porcentagem de 14%. Isso indica que a mudança na direção de cliticização já devia ter se dado por essa época.

Confirmação adicional para essa hipótese provém da variação próclise ao verbo principal *vs.* ênclise ao verbo auxiliar na seqüência *verbo auxiliar + verbo principal,* também investigada por Cyrino (1990). A autora mostra que a próclise ao verbo principal cresce de 0% na primeira metade do século XVIII para 100% na segunda metade do século XX. A construção inovadora surge na primeira metade do século XIX, uma pouco mais cedo que a próclise a imperativo afirmativo, com uma porcentagem de 7.7%. Combinando esses dois resultados, podemos tomar a mudança na direção de cliticização como tendo ocorrido por volta da virada para o século XIX.

4.1. Obsolescência dos clíticos acusativos de terceira pessoa

Uma vez que as crianças do início do século XIX adquiriram um sistema com cliticização fonológica da esquerda para a direita, não havia meio de o *onset* da sílaba dos clíticos acusativos de terceira pessoa ser licenciado. Numa situação como essa, as crian-

ças poderiam reanalisar os clíticos como sílabas sem *onset*, poderiam reformular o sistema fonológico introduzindo novas maneiras para licenciar o *onset* da sílaba dos clíticos, ou poderiam adquirir uma gramática sem clíticos acusativos de terceira pessoa.

A primeira possibilidade deve ter sido descartada porque dados simples e robustos como (21) demandariam uma análise dos clíticos como sílabas com *onset* subespecificado, como mencionado acima:

(21) a. comprá-*lo*
b. fizeram-*no*

Minha hipótese é que, entre introduzir novas regras para licenciar o *onset* da sílaba dos clíticos e adquirir uma gramática sem clíticos acusativos de terceira pessoa, as crianças do início do século optaram por esta última possibilidade. Esse sistema inovador, por sua vez, abriu caminho para duas novas construções que substituíram a antiga construção com clíticos acusativos de terceira pessoa: construções com objeto nulo e construções com pronome tônico na posição de objeto direto, respectivamente exemplificadas por (22) e (23):

(22) Eu entreguei *ec* pro João.
(23) Eu entreguei *ele* pro João.

(23) é agramatical em português europeu moderno e estigmatizado sociolingüisticamente em português brasileiro. (22), por outro lado, é também gramatical em português europeu moderno, mas com uma estrutura diferente. O objeto nulo do português europeu, conforme Raposo (1986), é uma variável ligada por um operador nulo e, portanto, exibe efeitos de ilha; já o objeto nulo do português brasileiro tem um estatuto diferente pois pode perfeitamente aparecer dentro de ilhas. Assim, qualquer que seja a natureza desta categoria vazia em português brasileiro (cf. Galves, 1989; Farrel, 1990 e Kato, 1991, entre outros), pode-se tomar a expansão dos contextos em que objetos nulos são aceitos em português brasileiro como subproduto do desaparecimento dos clíticos acusativos de terceira pessoa, ou, em outras palavras, subproduto da inexistência de aquisição de clíticos acusativos de terceira pessoa por crianças que internalizaram um sistema com cliticização fonológica da esquerda para a direita.

Cyrino (1990), que toma o objeto nulo do português brasileiro como um *pro*, a contraparte fonologicamente nula do pronome tônico, data o aparecimento da nova construção com objeto nulo como sendo da segunda metade do século XIX, período em que os pronomes tônicos começam a ocupar a posição de objeto (com uma porcentagem de 8.6% se comparados com os clíticos). O que é interessante para os nossos propósitos é que o surgimento tanto da nova construção com objeto nulo, quanto da construção com pronome tônico na posição de objeto segue-se ou é simultâneo à mudança na direção de cliticização fonológica, que presumivelmente se deu no começo do século XIX.

A manutenção dos clíticos acusativos de terceira pessoa no português brasileiro atual deve-se à ação normativa da escola, como podemos verificar nas tabelas 1 e 2 abaixo (adaptadas de Corrêa, 1991), que evidenciam a relevância do nível de escolaridade dos falantes no uso de objetos diretos que se referem a algo já mencionado no discurso (''objetos diretos anafóricos''):

Tipo de Obj.	adultos analfab.	série %					Total
	%	1ª/2ª	3ª/4ª	5ª/6ª	7ª/8ª	Univers.	%
Obj. Nulo	66,6	72,4	77,7	71,2	71,1	67,8	72,0
Pron. Tônico	25,6	24,1	8,6	19,1	20,1	7,1	18,2
NP Anafórico	7,6	3,4	13,6	7,4	7,6	14,2	8,3
Clíticos	-	-	-	2,1	0,9	10,7	1,3

Tabela 1: Objetos diretos anafóricos encontrados na fala.

Tipo de Obj.	Série %					Total %
	1ª/2ª	3ª/4ª	5ª/6ª	7ª/8ª	Univers.	
Obj. Nulo	57,5	65,6	52,3	53,5	9,5	51,4
Pron. Tônico	7,5	6,2	15,3	10,7	-	9,8
NP Anafórico	35,0	18,7	13,8	5,3	4,7	15,4
Clíticos	-	9,3	18,4	30,3	85,7	23,3

Tabela 2: Objetos diretos anafóricos encontrados na escrita.

A média geral de objetos diretos anafóricos na tabela 1 mostra claramente que os clíticos acusativos de terceira pessoa constituem a variante menos utilizada para objetos diretos anafóricos (1.3% = 6/433). Esses clíticos não ocorrem na fala de adultos analfabetos e começam a aparecer na fala das crianças somente nas 5ª/6ª séries (com uma taxa de 2.1% = 2/94). Nessa faixa escolar as crianças têm entre 11 e 13 anos, período em que presumivelmente já se deu o estágio relevante de aquisição de linguagem. Por outro lado, os clíticos aparecem mais expressivamente, embora ainda numa taxa baixa (10.7% = 3/28), na fala de estudantes universitários.

Cumpre também observar que, além das duas instâncias de clítico acusativo de terceira pessoa nas 5ª/6ª séries computadas na tabela 1, há uma instância de hipercorreção em que o clítico é reduplicado, como mostra (24):

(24) para *o* identificá-*lo*.

Esse dado é bem ilustrativo na medida em que evidencia os dois sistemas conflitantes com que se depara a criança na tentativa de aprender o uso dos clíticos acusativos de terceira pessoa. (24) mostra tanto a direção de cliticização da esquerda para a direita já internalizada (*o identificar*), quanto o licenciamento do *onset* da sílaba do clítico (*identificá-lo*), que está sendo aprendido na escola.

Observemos agora a tabela 2. Como esperado, a média geral do uso de clíticos de terceira pessoa na escrita é bem mais alta

(23.3% = 50/214) que na fala (1.3% = 6/433). Com efeito, da fala para a escrita há uma reversão do uso de pronomes tônicos *vis a vis* clíticos. Enquanto os pronomes tônicos são preferidos aos clíticos na fala, os clíticos são preferidos aos pronomes tônicos na escrita. Observe-se ainda que na escrita os clíticos aparecem nas 3ª/4ª séries (9.3% = 3/32), enquanto na fala aparecem nas 5ª/6ª séries, como visto nas tabela 1. Isso parece indicar que a aprendizagem desses clíticos dá-se antes que as crianças eventualmente os usem na fala.

Esse aprendizado, contudo, não tem a mesma natureza que a aquisição de pronomes tônicos em posição de objeto direto, por exemplo. Note-se que a média do uso de pronomes tônicos na fala (24.1% = 21/87) não é consideravelmente diferente da média dos adultos analfabetos (25.6% = 10/39). Em outras palavras, as crianças não precisam ser formalmente ensinadas para internalizar pronomes tônicos na posição de objeto, enquanto a aquisição dos clíticos acusativos de terceira pessoa só se dá via instrução formal (os adultos analfabetos não usam clíticos).

Alia-se a isso o fato de que as percentagens de uso de clítico pelas crianças das 4ª/5ª à 7ª/8ª séries na tabela 2 somente se referem a 32 instâncias de uso adequado. Além desses dados, Corrêa (1991) registrou 8 instâncias de hipercorreção semelhantes a (24). Assim, embora das 3ª/4ª à 7ª/8ª séries haja um crescimento geral no uso de clíticos acusativos de terceira pessoa, como se pode ver na tabela 2, para cada 4 instâncias de uso adequado há uma instância de hipercorreção. Por outro lado, de acordo com os resultados de Corrêa, não ocorrem casos de hipercorreção entre estudantes universitários.

Voltemos agora à questão de os clíticos acusativos não poderem ocupar a posição inicial de uma sentença, ao contrário dos demais clíticos, como ilustrado em (25):

(25) a. *Te* chamo amanhã.
b. **O* chamo amanhã.
c. Eu *o* chamo amanhã.

Em termos meramente especulativos, gostaria de aventar a possibilidade de que o aprendizado dos clíticos acusativos de terceira

pessoa na escola inclua também o licenciamento do *onset* da sílaba dos clíticos. De modo semelhante ao que ocorre com a criança portuguesa diante de seqüências como (21), o aprendiz brasileiro também deve postular um *onset* subespecificado para a sílaba desses clíticos. É bem provável, porém, que esse licenciamento seja diferente do que ocorre em português europeu, seja pela diferença na direção de cliticização fonológica, seja pela diferença no processo de aquisição desses clíticos. De qualquer modo, o que o contraste em (25) mostra é que os clíticos acusativos de terceira pessoa em português brasileiro precisam, pelo menos, de material fonológico que os preceda.

5. Conclusão

Mudanças lingüísticas que levam à obsolescência de algumas formas, como a que envolve os clíticos acusativos de terceira pessoa, podem lançar alguma luz na natureza da experiência engatilhadora na aquisição de linguagem (cf. Lightfoot, 1991, capítulo 6). Construções simples e robustas envolvendo clíticos acusativos de terceira pessoa certamente faziam parte do ambiente lingüístico disponível à criança brasileira do princípio do século XIX. Entretanto, para uma geração que adquiriu um valor diferente para a direção de cliticização fonológica, tornou-se impossível adquirir também os clíticos acusativos de terceira pessoa, uma vez que o *onset* de suas sílabas não pôde mais ser licenciado.

Com a inexistência de aquisição dos clíticos acusativos de terceira pessoa por uma geração de falantes, construções com esses clíticos tornaram-se menos freqüentes no ambiente lingüístico. Isso, por sua vez, forneceu combustível adicional para que as gerações subseqüentes que já tinham adquirido um sistema com cliticização da esquerda para a direita também não adquirissem esses clíticos. Assim, em pouco mais de um século depois que a mudança na direção de cliticização teve início, os clíticos acusativos de terceira pessoa vêem-se ameaçados de extinção no português brasileiro. A obsolescência das antigas construções com clíticos, então, abriu caminho para a expansão das construções com objeto nulo e para a introdução de construções com pronome tônico na posição de objeto.

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VIII
*RECONTANDO A HISTÓRIA DAS RELATIVAS EM UMA PERSPECTIVA PARAMÉTRICA**

Mary A. Kato

1. O estudo de Tarallo, 1983

Tarallo (1983/1985), em seu estudo diacrônico, já clássico, das relativas no português do Brasil, mostra, em uma perspectiva variacionista acoplada à teoria gerativa, que o português contava, até os fins do século XIX, com duas estratégias de relativização: a estratégia do pronome relativo (1)a. e a estratégia do pronome resumptivo (1)b.,também conhecida como relativa copiadora, sendo esta, contudo, uma estratégia menor. Para Tarallo, a estratégia inovadora no português do Brasil é a relativa cortadora, (1)c., que começa a aparecer, na metade do século XIX, para as posições de objeto indireto e outros constituintes preposicionados (cf. tabela 6 do autor).

(1) a. A moça *com quem* falei ontem está aqui.
b. A moça *que* eu falei *com ela* ontem está aqui.
c. A moça *que* eu falei ontem está aqui.

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THE DIACHRONIC DISTRIBUTION OF BARE AND PREPOSITIONAL INFINITIVES IN ENGLISH

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1 Introduction

In this paper I investigate constructions involving bare and prepostional infinitives in the history of English.[1] Based on the distribution of bare and prepositional infinitives in Romance (see Raposo 1986), I propose that English has a null infinitival head with the features [–V, +N], which needs to satisfy the Case Filter (see Chomsky 1981) in the same way the overt infinitival head in Romance does. I show that the preposition *to* is a dummy Case marker that allows the null infinitival head to comply with the Case Filter. Finally, I argue that the general replacement of bare infinitives by prepositional infinitives in the history of English is due to the loss of verb movement in infinitivals.

The paper is organized as follows. In section 2 I briefly present Raposo's (1986) proposal to account for the distribution of bare and prepositional infinitives in Romance. In section 3 I propose that Raposo's analysis can be successfully extended to English. And finally in section 4 I discuss the history of some infinitival constructions: in section 4.1, perception and causative constructions; in section 4.2, ECM constructions; in section 4.3, 'split infinitives'; and in section 4.4, the distribution of sentential subjects.

2 Bare and prepositional infinitives in Romance

Raposo (1986) argues that infinitival clauses in Romance behave like nominal projections with respect to the Case Filter. He shows that bare infinitives can only appear in positions selected by Case-assigning elements, as exemplified by the Portuguese sentences in (1-3):

[1]This is a revised and shortened version of the papers I presented at the Fourth Student Conference in Linguistics at Ohio State University (see Nunes 1992), and at the 11th International Conference on Historical Linguistics, at the University of California Los Angeles (see Nunes MS). I would like to thank Norbert Hornstein, David Lightfoot, Alan Munn, Ellen Thompson, and Juan Uriagereka for insightful comments and suggestions on earlier versions of this paper. The remaining errors are my own responsibility.

(1) *O rapaz receia [chumbar o exame]*
the boy fears [fail-INF the exam]
"The boy fears failing the exam"

(2) *O receio *(de) [chumbar o exame]...*
the fear *(of) [fail-INF the exam]
"The fear of failing the exam ..."

(3) *O rapaz está receoso *(de) [chumbar o exame]*
the boy is fearful *(of) [fail-INF the exam]
"The boy is fearful of failing the exam"

In order to account for the data above, Raposo proposes that Romance infinitival clauses are partly characterized as a projection of a [–V,+N] element, namely, the infinitival morpheme. As a nominal element, the infinitival morpheme (or its projection) is subject to the Case Filter. Thus, the infinitival clause of (1) can be Case-marked by the verb *recear* and satisfy the Case Filter. On the other hand, the infinitival clause complement of a cognate noun, as in (2), or a cognate adjective, as in (3), requires the insertion of a dummy preposition (*de*) in order to be Case-marked.

In the next section I investigate how Raposo's analysis can be extended to English.

3 *English infinitives*

As is well known, before the phonological weakening of inflectional endings in its history, English had an overt infinitival morpheme, namely, *-an*. Roberts (1992) claims that from Old English to Modern English *to* was reanalysed as the head of the infinitival TP after the phonological weakening of *-an*. This proposal, however, does not provide an account for the distribution of bare infinitives and *to*-infinitives BEFORE the weakening of the infinitival TP. Crucially, not only did bare infinitives in *-an* coexist with *to*-infinitives in Old English, but infinitival morphemes preceded by *to* surfaced as *-anne* or *-enne*, exhibiting inflection for the dative Case assigned by *to* (see Callaway 1913).

Lightfoot (1979), on the other hand, claims that infinitives were nominal projections in Old English, but were reanalysed as VPs in Middle English. Alternatively, it seems reasonable to think that, other than phonological differences, the properties of both the infinitival morpheme and the preposition *to* remain constant throughout the history of English. Extending Raposo's (1986) proposal to Old English, I propose that the infinitival morpheme is still a nominal element, and *to* has always been a dummy Case-marker (see Stowell 1981:177ff.), used as a last resort in order for the infinitival morpheme

(*-an* in Old English and Ø in Modern English) to satisfy the Case Filter. In other words, the phonological weakening of *-an* gave rise in Modern English to an infinitival TP headed by a phonologically null infinitival morpheme. Furthermore, the fact that *to*-infinitives in general came to replace bare infinitives is related to the loss of verb movement in English, as will be shown below.

Assuming that AgrP, when present, dominates a TP (see Belletti 1990), there are four logically possible ways for an infinitival TP to satisfy the Case Filter, as sketched in (4).

(4) (a) The infinitival TP is subcategorized for by a Case-assigner.
(b) The infinitival TP moves to a Case-marked position.
(c) The infinitival head moves to a position where it can be Case-marked.
(d) As a 'last resort operation' (see Chomsky 1991), the infinitival morpheme is Case-marked after the insertion of a dummy Case-marker.

Below I will consider some specific constructions in which these possibilities are actualized.

4 *Diachronic analysis*

4.1 *Perception and causative constructions*

Infinitival complements of perception and causative verbs in Modern English present us with an interesting puzzle. In their active forms these verbs take bare infinitives as their complements, whereas in their passive forms they take prepositional infinitives (see Zagona 1982, Lightfoot 1991, among others):

(5) (a) *Bill saw Mary (*to) eat*
(b) *Mary was seen *(to) eat*

(6) (a) *Bill made Mary (*to) eat*
(b) *Mary was made *(to) eat*

As we can see in (7) and (8) below, perception and causative verbs in Old English subcategorize for a bare infinitival clause.[2] Under the plausible assumption that the phonological weakening of the infinitival morpheme did not lead to changes in the subcategorization features of perception and

[2]In his study of infinitives in Old English, Callaway (1913) counts 1512 instances of bare infinitives and 15 instances of *to*-infinitives as complements of perception and causative verbs (for discussion of Callaway's figures, see Russom 1980).

causative verbs, the complements of *see* and *make* in (5a) and (6a) should be taken still to be infinitival clauses, rather than 'bare VPs', as often assumed. The question that then arises is what the structure of the infinitival clause of (5a) and (6a) is, which allows both *Mary* and the null infinitival morpheme to satisfy the Case Filter.

(7) *þa þa he geseah his fostormoder wepan*
"then he saw his foster mother weep"
(Gregory's *Dialogues* (C) 97.14; apud Lightfoot 1991:82)

(8) *swa du dydest minne broder his god forlætan*
"as you made my brother forsake his god"
(Ælfric, *Homilies* i, 468, 21; apud Lightfoot 1991:82)

Assuming the standard view that perception and causative verbs trigger 'S-deletion' (see Chomsky 1981), we need to determine whether the infinitival clauses of (5a) and (6a) are AgrPs or TPs, and how the nominal elements of the infinitival clauses satisfy the Case Filter. Some of the logical possibilities are listed in (9)-(11), where the null infinitival morpheme is represented by Ø:

(9) *Bill saw/made* $[_{Agr'}$ Agr $[_{TP}$ *Mary* $[_{T'}$ Ø $[_{VP}$ *eat*]]]]

(10) *Bill saw/made* $[_{AgrP}$ *Mary*$_i$ $[_{Agr'}$Agr $[_{TP}$ t_i $[_{T'}$ Ø $[_{VP}$ *eat*]]]]]

(11) *Bill saw/made* $[_{TP}$ *Mary* $[_{T'}$ Ø $[_{VP}$ *eat*]]]

In order to choose among these structures, I will rely on the recursive definition of government proposed by Raposo and Uriagereka (1990), as stated in (12) and (13):

(12) α (= X^0) governs β iff: (a) α is a sister of β, or (b) α governs δ, and there is no γ, γ a barrier for β, such that γ excludes δ; and there is no μ, μ a closer governor of β than α, where μ is a closer governor of β than α, iff μ governs β by fewer steps than α does.

(13) α is a barrier only if α is an $X^{\max}$ (a specified functional projection).

According to (12), the matrix verb in (9) does not govern either *Mary* or the infinitival morpheme, because there is an intervening barrier (TP) and a closer governor for these elements (Agr). Therefore, (9) is ruled out by the Case Filter: both *Mary* and the infinitival morpheme do not receive Case.

In (10), on the other hand, the matrix verb governs AgrP by the base step of the definition (12), as well as governing *Mary* by the induction step, since there is no barrier for *Mary* that excludes the projection governed by the matrix verb, and Agr is not closer as a governor. However, the matrix verb does not govern the infinitival morpheme, because TP is an intervening barrier for the infinitival morpheme and Agr is a closer governor. Hence, (10) also yields a Case Filter violation.

In (11) the matrix verb governs the TP by the base step, as well as governing *Mary* and the head of TP by the induction step. If the matrix verb assigns its Case to TP, the Case percolates down to the infinitival head, which allows both *Mary* and the infinitival head to satisfy the Case Filter by 'sharing' this Case through Spec-head agreement. Since the infinitival TP in (11) is a complement of a Case assigner (cf. (4a)) and the infinitival morpheme can satisfy the Case Filter, the last resort rule of *to*-insertion is not triggered (cf. (5a), (6a), (7) and (8)).

By contrast, if the matrix verb is passivized and consequently loses its ability to assign Case, as in (5b) and (6b), both the embedded subject and the infinitival morpheme will have to find alternative ways to be Case-marked. The embedded subject undergoes the familiar NP movement, being assigned nominative by the matrix Infl. The infinitival morpheme, in turn, is Case-marked by the last resort process of *to*-insertion (cf. (4d)). This then derives the fact that the active and passive forms of perception and causative verbs apparently differ in terms of their subcategorization features.[3]

The fact that the general replacement of bare infinitives by *to*-infinitives in the history of English did not extend to perception and causative verbs (in their active forms) lends support to the structure proposed in (11). Once the infinitival TP is subcategorized by a Case assigner (cf. (4a)), the last resort rule of *to*-insertion is not activated.

4.1.1 Moving the infinitival TP

Assuming the analysis presented in the previous section, we may ask why a sentence like (14a) below is ungrammatical; the embedded subject and the infinitival morpheme could satisfy the Case Filter by sharing the Case

[3]The unacceptability of (i) below is apparently problematic for the present approach, because the embedded subject and the infinitival morpheme should be able to share the case assigned by *to*. Nunes (1993) proposes that Case Theory should be relativized in terms of both the Case Filter and the Visibility Condition, yielding a system with four kinds of structural Case: [+PF, +LF], [–PF, –LF], [–PF, +LF] and [+PF, –LF]. Based on this proposal, Nunes (MS) suggests that the Case assigned by *to* is of the kind [+PF, –LF]. Thus, if *Bill* and the infinitival morpheme share the Case assigned by *to*, both elements will comply with the Case Filter; however, a violation of the Visibility Condition will arise, because *Bill* receives a θ-role, but not a [+LF] case.

(i) **It/there was made Bill to leave*

assigned by the matrix Agr through Spec-head agreement, along the lines of the account proposed for (11).

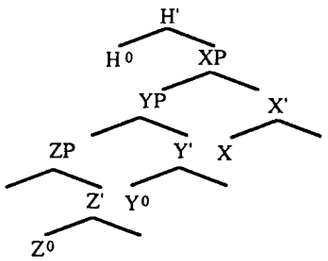
(14) (a) **Bill leave was seen*

(b) *[$_{TP}$ *Bill* [$_{T'}$ Ø [$_{VP}$ *leave*]]]$_i$ *was seen* t$_i$

My claim is that the ungrammaticality of (14) can be accounted for if we rely on Raposo and Uriagereka's (1990) recursive definition of government (cf. (12) and (13)). Assuming that Case assignment takes place under government, it is natural to think that an element that shares the Case assigned by X to Y must also be governed by X. This condition captures the fact that Case assignment can resort to Spec-head agreement only once, as shown below.

If XP in a configuration like (15) below receives a Case from H^0 and this Case percolates down to X^0, X^0 and YP can share the Case assigned by H^0 because both of them are governed by H^0 (notice that in terms of (12), X^0 is as close to YP as H^0). By assumption, the Case assigned to YP percolates down to Y^0. However, Y^0 cannot further share this Case with ZP because H^0 (the potential source of Case) does not govern ZP: YP is an intervening barrier for ZP that excludes the nodes governed by H^0, and Y^0 is a closer governor.

(15)



Thus, the nominative Case assigned by the matrix Agr in (14) to the infinitival TP and, consequently, to the infinitival head, cannot reach the subject of the infinitival clause, because the Agr head does not govern it: the TP is a barrier for *Bill* that excludes the nodes that the matrix Agr governs and T^0 is a closer governor than the matrix Agr. Hence, *Bill* is not Case-marked, violating the Case Filter. This approach is further confirmed by the ungrammaticality of gerundive TPs and infinitival AgrPs (cf. section 4.2) in subject position, as respectively illustrated in (16):

(16) (a) *[*Bill leaving*]$_i$ *was seen* t$_i$

(b) *[*Mary to be intelligent*]$_i$ *was believed* t$_i$ *by everyone*

To sum up, movement of an infinitival TP to a Case-marked position (cf. (4b)) is itself not ungrammatical. The problem is that after such movement takes place, the subject of the infinitival clause will not be in an accessible position for Case-marking, yielding a Case Filter violation.[4]

4.2 ECM constructions

One difference between perception and causative verbs, on one hand, and the other verbs of 'exceptional Case-marking', on the other, is that the former select a bare infinitive, as discussed above, and the latter select a *to*-infinitive, as shown in (17):

(17) *John expected* [*Mary* **(to) leave*]

Given the analysis of causative and perception constructions outlined in section 4.1, *expect* in (17) cannot subcategorize for a TP. Otherwise, *Mary* and the infinitival morpheme could share the Case assigned by the matrix verb through Spec-head agreement, and *to*-insertion would not be required. Hence, ECM verbs like *expect* plausibly subcategorize for an AgrP, as shown in (18):

(18) *John expected* [$_{AgrP}$ *Mary*$_i$ [$_{Agr'}$ Agr [$_{TP}$ t$_i$ [$_{T'}$ Ø [$_{VP}$ *leave*]]]]]

Evidence showing that the structure of the infinitival complement of ECM verbs is more complex than the structure of the infinitival complement of perception and causative verbs is provided by modification with temporal adverbs, as illustrated in (19):

(19) (a) **John saw/made [Mary leave tomorrow]*

(b) *John expected [Mary to leave tomorrow]*

According to Hornstein's (1990) theory of tense, the tense structure of the infinitival complements of perception and causative verbs includes just an E-

[4]The fact that PRO cannot be licensed in the Spec of a moved TP, as shown in (i), may follow if PRO cannot be assigned a null Case (in Chomsky & Lasnik's (1991) terms) or a [–PF, +LF] Case (in Nunes's (1993) terms) by the head of the infinitival TP:

(i) *[$_{TP}$ PRO *leave*] *was seen by everybody*

point (the time of the event), which is linked to the matrix E-point, whereas the tense structure of the complement of ECM verbs includes an E-point and an R-point (the reference time), which is linked to the matrix E-point. Hence, independent temporal modification is allowed in the complement of ECM verbs, as in (19b), but not in the complement of perception and causative verbs, as in (19a). Under the assumption that complexity in tense structure is reflected in syntactic structure, the contrast in (19) indicates that ECM verbs involve more structure than perception and causative verbs.

Let us now return to (18). According to the definitions of government and barrier in (12) and (13), *expect* governs *Mary* but not the infinitival morpheme (Ø). Thus, as it stands, (18) yields a Case Filter violation. There are, nevertheless, two strategies to save a structure like (18). Under the first one, the verb raises to Agr, picking up the infinitival morpheme on its way, as represented in (20) below. This V-to-T-to-Agr movement yields a configuration where the embedded subject and the infinitival morpheme can share the Case assigned by the matrix verb through Spec-head agreement; cf. (4c). If such a movement cannot occur, *to*-insertion is triggered as a last resort device; cf. (4d).

(20) *John expected* $[_{AgrP}$ *Mary*$_k$ $[_{Agr'}$ $[[leave]_i$-Ø$]_j$-Agr $[_{TP}$ t_k $[_{T'}$ t_j $[_{VP}$ t_i]]]]]

The choice between these two strategies will depend on the availability of long verb movement within infinitivals in the language in question. Given that movement of V to infinitival Agr is not available in Modern English (see Pollock 1989, Belletti 1990), *to*-insertion is triggered in (18), in order for the infinitival morpheme to satisfy the Case Filter (cf. (17)).

This approach makes the following prediction for a diachronic analysis of ECM constructions: ECM constructions with a *to*-infinitive could not have existed while verb movement was still available in English. Verb raising to the head of the infinitival TP and further up to the head of AgrP would not trigger *to*-insertion, because the embedded subject and the infinitival morpheme could share the Case assigned by the ECM verb via Spec-head agreement.

In fact, ECM constructions either with bare or with *to*-infinitivals were not productive in Old English. The small number of instances in this period may certainly be attributed to literal translations of Latin *accusativus cum infinitivo* constructions. ECM constructions without Latin influence are believed to have appeared only in Middle English (see Fischer 1988,

Lightfoot 1991). Thus, while Old English, a language with canonical verb movement, neither confirms nor falsifies our prediction, it seems that we cannot account for the fact that ECM constructions with *to*-infinitivals arose in Middle English, a period in which verb movement was still productive.

This, nonetheless, can be explained if we recall that the relevant movement here is verb movement to a non-finite rather than to a finite Infl. Cross-linguistically, verb movement to an infinitival Agr seems to be a costly alternative. This is presumably due to the inherent morphological weakness of the infinitival Agr head in the majority of languages. Thus, we should expect that a language that undergoes a process of weakening of its agreement inflection and, consequently, loss of verb movement, first loses verb movement to an infinitival Agr.

This process can be exemplified by verb movement in French. In Modern French, all verbs move to Agr in finite sentences, but in infinitival clauses only auxiliaries can move to the infinitival Agr (see Pollock 1989, Belletti 1990). In earlier stages of French, however, main verbs could move to infinitival Agr, as exemplified in (21) (apud Hirschbühler & Labelle MS), where the infinitive precedes the negative marker *pas*:

(21) *Ce qui est difficile, c'est de ne s'abandonner pas au plaisir de les suivre*
(Mme. de la Fayette, Clèves 1678:94)

With this in mind, I propose that although verb movement to finite Infl was still productive in Middle English, the loss of movement to infinitival Agr had already started by then. This explains why ECM constructions with verbs like *expect* take *to*-infinitives even in Middle English: once the infinitival morpheme could not move to the head of AgrP to share with the embedded subject the Case assigned by the governing verb, *to*-insertion was triggered.

Two pieces of evidence confirm the hypothesis that the loss of verb movement to infinitival Agr preceded the one to finite Agr: the appearance of 'split infinitives' and the change in the distribution of infinitival sentential subjects. I discuss these changes in the following two sections.

4.3 The appearance of 'split infinitives'

Pintzuk (MS) argues that by the year 1000 the percentage of 'Infl-medial' structures (Infl VP) in English reaches 100% in matrix clauses and 60% in subordinate clauses. The change from Infl-final to Infl-medial allows us to investigate verb movement within infinitivals, by checking the position of the

verb with respect to adverbs.

Consider (22), the representation of an infinitival clause (*-an* stands for the infinitival morpheme) with the new Infl-medial structure:

(22) $[_{AgrP}\ [_{Agr'}[_{TP}\ [_{T'}\text{-an}\ [_{VP}\ \text{adverb}\ [_{VP}\ \ldots\ V\ \ldots\ ]]]]]]$

Now suppose that the dummy Case-marker *to* is adjoined to the head of TP. If the verb raises (at least) to T^0, the surface order will be *to* + verb+*an* + adverb; if the verb remains in situ, the surface order (after affix lowering) will be *to* + adverb + verb+*an*. Hence, examples of the latter constitutes evidence for the loss of verb movement in infinitivals.

(23) below exemplifies the innovative construction. According to Visser (1963-73:1035), the earliest examples in which the infinitival verb is separated from *to* (or *forto*) by a word date back to the thirteenth century. Although Visser observes that the number of examples in the thirteenth, fourteenth, and fifteenth centuries is rather small, the appearance of 'split infinitives' in this period and subsequent variation suggests that loss of verb movement within infinitival clauses had already started by then.

(23) *What movede the pape of Rome to thus accepte mennes persones*
(c.1382 Wyclif, *Sel. Wks.* II, 303, apud Visser (1963-73:1041))

4.4 *Sentential subjects*

Lightfoot (1979) points out that from the tenth to the fourteenth century subject *to*-infinitivals occur only in 'extraposed position'. In the fourteenth century they also begin to appear in subject position, but only in the fifteenth century does this become a productive variant position.

Let us consider how the infinitival morpheme of a sentential subject in subject position like (24) below could be assigned Case in Old English and Early Middle English. Assuming that infinitival subjects are CPs and that verb movement inside an infinitival clause was allowed in Old English and Early Middle English, the verb of an infinitival subject in subject position could move to the head of CP, as roughly represented in (25) below, where the infinitival morpheme could be assigned nominative by the matrix Agr. Thus, the fact that there seems to be a ban on *to*-infinitives in subject position in Old English and Early Middle English follows from the possibility of verb movement within an infinitival clause in these periods.

(24) *richten hire & smeden hire is of euch religiun... þe god & alde strengde*
(c.1225 Ancr. R. (EETS 1952) ii 18; apud Visser (1963-73:949))

(25)
$[_{IP}\ [_{C'}\ [[[V]_i + \text{-}an\ ]_j + Agr]_k\ [_{AgrP}\ PRO_m\ [_{Agr'}\ t_k\ [_{TP}\ t_m\ [_{T'}\ t_j\ [_{VP}\ t_i\ \ldots]]]]]]]\ \text{Infl VP}]$

In 'extraposed' subject constructions like (26) below, however, the matrix Infl assigns its Case to the expletive *hit* in subject position. Thus, given that verb movement cannot provide a way for the infinitival morpheme of (26) to be Case marked, *to*-insertion is triggered as a saving strategy:[5]

(26) *hit is swide earfode ænigum to dowinne twam hlafordum*
(c.1000 Hexameron St Basil, 36 apud Lightfoot 1979:201)

The reasons for the subsequent change in Late Middle English toward allowing *to*-infinitives to appear also in subject position are by now familiar. As soon as English started losing verb movement to infinitival Agr, the infinitival morpheme of a sentence like (24) could no longer be assigned nominative via V-to-T-to-Agr-to-C movement. Thus, from the fourteenth century on, the last resort rule of *to*-insertion begins to be triggered before infinitivals in subject position.

5 *Conclusion*

The analysis developed above provides evidence that the nominal properties of the infinitival morpheme in English remain constant despite its phonological weakening. The infinitival morpheme can be Case-marked (and, therefore, satisfy the Case Filter) either if its projection is selected by a Case assigner, or if it moves to a position where it can receive Case. If neither of

[5]Bare infinitives could also appear in the 'extraposed position' when there was no expletive in subject position, as schematically represented below. The definition in (12) and (13) above allows the matrix Infl to assign nominative Case to the infinitival morpheme in C^0 (see Raposo & Uriagereka 1990 for their analysis of long distance Case assignment, as well as for the role of overt expletives in blocking such an assignment). Since the complement clause as a whole in (i) (the C') does not have an element in its Spec, it does not count as a barrier for government of the infinitival morpheme. Given that the matrix Infl is as close a governor as the matrix verb from C^0, nominative Case can be assigned, and the infinitival morpheme can satisfy the Case Filter. In the absence of verb movement to C, on the other hand, *to*-insertion is required, for the matrix Infl is not able to govern the infinitival morpheme, because AgrP now does count as a barrier:

$[_{IP}\ \text{Infl}\ V\ [_{C'}\ [[[V]_i + \text{-}an\ ]_j + Agr]_k\ [_{AgrP}\ PRO_m\ [_{Agr'}\ t_k\ [_{TP}\ t_m\ [_{T'}\ t_j\ [_{VP}\ t_i\ \ldots\ ]]]]]]]$

these alternatives is available, the last resort rule of *to*-insertion is triggered. The fact that *to*-infinitives came to replace bare infinitives in all the contexts where the infinitival morpheme is not governed in situ by a Case assigner is thus attributed to the loss of verb-movement to infinitival Agr in the history of English.

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Temporal Reference, Aspect and Actionality.
Vol. 1: Semantic and Syntactic Perspectives

Rosenberg & Sellier

Jairo Nunes
Ellen Thompson

THE DISCOURSE REPRESENTATION OF TEMPORAL DEPENDENCIES

1. *Introduction*. The temporal interpretation of matrix clauses and independent sentences differs from that of finite complement clauses. Whereas the event time of matrix clauses and independent sentences is generally located with respect to the utterance time, the event time of finite complement clauses can be located either with respect to the utterance time (henceforth, the temporally independent reading), or with respect to the event time of the subcategorizing verb (hereafter, the temporally dependent reading). These two possible interpretations for finite complement clauses are illustrated in (1) below. In (1a), Mary's departure on Monday is temporally located after the utterance time, whereas in (1b) it is located after the time of saying.

(1) a. John said that Mary will leave on Monday.
b. John said that Mary would leave on Monday.

The purpose of this paper is to show that the similarity between temporally independent embedded clauses like the one in (1a) and independent sentences goes far beyond the fact that they are both temporally located with respect to the utterance time. We show that temporally independent clauses behave like independent sentences at the level of discourse, giving rise to interesting contrasts between temporally independent and dependent embedded clauses.

The discussion is organized as follows. In sections 2 and 3 we briefly summarize Hornstein's (1990) analysis of Sequence of Tense (SOT) and Chierchia's (1992) Dynamic

Type Theory, upon which we build our analysis. Based on these analyses, we propose in section 4 that an unlinked S point in a tense structure is associated with a propositional variable. Thus, temporally independent embedded clauses differ from temporally dependent embedded clauses in that they replace the propositional variable associated with the embedding clause. This distinction explains the different behavior of these clauses in interclausal quantifier binding, scope interaction, licensing of negative polarity items, and counterfactual readings, as shown in section 5. Section 6 is reserved for consideration of crosslinguistic variation. Finally, some concluding remarks are presented in section 7.

2. *Hornstein's (1990) Sequence of Tense Rule.* Hornstein (1990) develops a neo-Reichenbachian analysis of the tense structure of a clause, taking it to be the set of relations between temporal points: the relation between the S point (usually, the utterance time) and the R point (the reference time), and the relation between the R and the E point (the time of the event). In Hornstein's system, the structures of the basic tenses of English are as in (2) below, where the linear order of the S, R and E points reflects their temporal order. If two points are separated by a line, the leftmost point is interpreted as temporally preceding the other point. If two points are separated by a comma, they are interpreted as contemporaneous:

(2)

S,R,E present	E,R_S past	S_R,E future
E_S,R present perfect	E_R_S past perfect	S_E_R future perfect

To account for the distinct readings available in (1), Hornstein proposes an optional rule (the Sequence of Tense Rule, henceforth SOT Rule) that links the S point of an embedded tense structure to the E point of the embedding tense structure so that they are interpreted as contemporaneous. If the rule applies, the temporally dependent reading is derived. If it does not, the unlinked S point is identified as the utterance time by default, deriving the independent reading. Thus, the tense structures of (1a) and (1b) are as in (3a) and (3b):

(3) a. E,R_S
S_R,E

b. E,R_S
|
S_R,E

3. *Chierchia's (1992) Dynamic Type Theory.* Based on Stalnaker (1979) and Groenendijk and Stokhof (1991), among others, Chierchia (1992) develops a dynamic version of Discourse Representation Theory, which he calls Dynamic Type Theory. According to this theory, the computation of the semantics of a sentence involves placing constraints on stretches of discourse yet to come. Thus, the context-changing character of a

sentence S is represented as [S' ∧ p], where S' is the truth-conditional content of S and *p* is a propositional variable that acts as a place holder for the following sentence of the discourse.

The discourse representation of a sequence of sentences "S_1 S_2", for example, is as in (4) (Chierchia's (46)):[1]

(4) $[S_1' \wedge p] + [S_2' \wedge p] = [S_1' \wedge p'][S_2' \wedge p] = [S_1' \wedge S_2' \wedge p]$

The meaning of the discourse sequence "S_1 S_2" is computed by replacing the propositional variable of S_1 with the dynamic truth conditional representation of S_2. The truth conditions of the discourse sequence $[S_1' \wedge S_2' \wedge p]$ can be determined by filling in the propositional variable with something uninformative, such as a tautology.

4. *The Discourse Representation of Temporally Dependent and Independent Embedded Clauses.* We propose that at the level of the discourse, temporally independent embedded clauses replace the propositional variable associated with the matrix clause, behaving like independent sentences, while temporally dependent clauses do not. This amounts to saying that the propositional variable is a place holder for temporally independent structures (structures with an unlinked S point), including both independent sentences, as proposed by Chierchia, and temporally independent embedded clauses. Thus, the (simplified) dynamic representations of (1a), which has a temporally independent embedded clause, and (1b), with a temporally dependent embedded clause, are as in (5) and (6), respectively:

(5) [John said [that Mary will leave on Monday] ∧ p]
= [John said ∧ [that Mary will leave on Monday]]

(6) [John said [that Mary would leave on Monday] ∧ p]

Before examining the evidence that supports this distinction between temporally dependent and independent clauses at the discourse level, we must first eliminate two inadequacies of the dynamic representation proposed in (5) for (1a). The first problem with (5) concerns the lack of connection between the verb *say* and its complement, after the embedded clause replaces the propositional variable. With such a disconnection, (5) should receive a deviant interpretation or no interpretation at all.

This may not be a problem, however, if temporally independent embedded clauses are not real complements. The idea that the apparent complement clause of verbs like *say* may

actually not be a complement has been pursued by several authors in different frameworks (see Davidson (1969), Torrego and Uriagereka (1993), among others). Torrego and Uriagereka (1993), for instance, hypothesize that only subjunctive clauses are real complements. Indicative embedded clauses, on the other hand, are analyzed as paratactic constructions in an appositive relation with the null object of the subcategorizing verb. This is schematically illustrated in (7) and (8), respectively (Torrego and Uriagereka's (1a-b)):

(7) a. Platon quiere que Aristoteles lea a Socrates.
Plato wants that Aristotle read-subj. to Socrates
'Plato wants Aristotle to read Socrates.'
b. ... [$_{V'}$ V [$_{CP}$ ...]]

(8) a. Platon dice que Aristoteles lee a Socrates.
Plato says that Aristotle read-ind. to Socrates
'Plato says that Aristotle reads Socrates.'
b. ... [$_{V'}$ V [$_{DP}$ DP [$_{CP}$ ...]]]

We propose that the structure conjectured by Torrego and Uriagereka for indicative embedded clauses shown in (8b) is restricted to clauses that do not undergo SOT, such as the one in (1a). By contrast, indicative embedded clauses that undergo SOT, such as the one in (1b), are true complements of the subcategorizing verb (cf. (6)), similar to the representation of subjunctive embedded clauses as shown in (7b).[2] Thus, a more precise representation of (5) should encode the appositive relation between the null object of *say* and the embedded clause. Such a refinement is provided in (9) below, where *e* is a constant representing the null object of *say*, and "≡" stands for an identificational predicate:[3]

(9) [John said e ∧ [e ≡ that Mary will leave on Monday] ∧ p]
= [John said e ∧ e ≡ that Mary will leave on Monday]

The second problem with the representation in (5), which persists in (9), is that the output of the propositional variable replacement is static, rather than dynamic. This predicts that the corresponding sentence in (1a) can not be combined with following stretches of discourse, which is clearly not the case. Notice, however, that the right results are obtained if the embedded clause of (9) also contains a propositional variable. The question then is why this should be the case.

Let us suppose that an unlinked S point is always associated with a propositional variable. The intuition behind this idea is that due to its deictic nature (it encodes the utterance time), an unlinked S point anchors the context that constrains the stretches of discourse yet to

come.[4] If so, the appropriate dynamic representation of (1a) is as in (10) below, rather than in (9). If unlinked S points are associated with a propositional variable, replacement of the outermost propositional variable in (10) by the dynamic representation of the embedded clause results in a dynamic representation, allowing the sentence in (1a) to be combined with a sentence that might follow it in a discourse sequence.

(10) [John said e ∧ [e ≡ that Mary will leave on Monday ∧ p] ∧ p]
= [John said e ∧ e ≡ that Mary will leave on Monday ∧ p]

In the next section, we will see that the discourse representations we have proposed for temporally dependent and independent embedded clauses receive empirical support from a wide variety of syntactic phenomena.

5. *Supporting Evidence.*[5]

5.1. *Interclausal and Cross-sentential Quantifier Binding*. We have claimed in section 4 that at the discourse level, temporally independent clauses behave like independent sentences. Let us then examine the behavior of independent sentences at the discourse level, and see whether our claim about temporally independent clauses holds.

As shown in (11), cross-sentential quantifier binding (Q-binding) of a pronoun is possible with existential quantifiers, and not with universal quantifiers (see Kamp (1981), Heim (1982), Chierchia (1992), among others):[6]

(11) a. Someone$_i$ arrived. He$_i$ was handsome.
b.*Everyone$_i$ arrived. He$_i$ was handsome.

Chierchia accounts for the different binding behavior of universal and existential quantifiers in cross-sentential binding in terms of the position of the propositional variable with respect to the scope of the quantifier. Simply put, the propositional variable is placed inside the scope of existential quantifiers and outside the scope of universal quantifiers, as represented in (12) below. The (simplified) dynamic representations of the sequences in (11a) and (11b), for instance, are as in (13) and (14), respectively:

(12) a. ∃[... ∧ p]
b. ∀[...] ∧ p

(13) ∃x[x is a person ∧ x arrived ∧ p] + [x was handsome ∧ p]
= ∃x[x is a person ∧ x arrived ∧ x was handsome ∧ p]

(14) ∀x[x is a person → x arrived] ∧ p + [x was handsome ∧ p]
= ∀x[x is a person → x arrived] ∧ x was handsome ∧ p

After the propositional variable of the first sentence is replaced by the dynamic representation of the second sentence at the discourse level, the pronoun of (11) can be bound by the quantifier, as shown in (13), whereas the pronoun of (12a) cannot, as shown in (14). Sequences like those in (11) thus show that Q-binding must be checked at the discourse level, for the quantifier does not c-command the pronoun at LF.

Our proposal predicts that the different behavior of universal and existential quantifiers with respect to cross-sentential binding should also arise in Q-binding into temporally independent clauses. As shown in (15) below, this prediction is met: Q-binding into temporally independent embedded clauses is allowed with existential, and not with universal quantifiers:[7]

(15) a. Someone$_i$ said that he$_i$ will leave on Monday.
b. *Everyone$_i$ said that he$_i$ will leave on Monday.

Extending Chierchia's analysis of cross-sentential binding to interclausal Q-binding into temporally independent embedded clauses, (15a) and (15b) are represented as in (16) and (17), respectively:

(16) ∃x[x is a person ∧ x said e ∧ [e = that x will leave on Monday ∧ p] ∧ p]
= ∃x[x is a person ∧ x said e ∧ e = that x will leave on Monday ∧ p]

(17) ∀x[x is a person → x said e ∧ [e = that x will leave on Monday ∧ p]] ∧ p
= *∀x[x is a person → x said e] ∧ e = that x will leave on Monday ∧ p

Given that the embedded clauses of (15a) and (15b) are temporally independent (they have an unlinked S point), they fill in for the propositional variable associated with the matrix clause, as proposed in section 4. After the propositional variable is replaced by the dynamic representation of the embedded clause, the variable corresponding to the pronoun falls inside the scope of the existential quantifier, as in (16), and outside the scope of the universal quantifier, as in (17). Therefore, binding into a temporally independent embedded clause is possible just in case the quantifier is existential. The data in (15) further confirm that pronoun binding by quantifiers must be checked at the discourse level. If Q-binding were checked solely at LF, there should be no contrast between (15a) and (15b). In both cases, the quantifier presumably c-commands the pronoun in the embedded clause at LF.

In contrast to Q-binding into temporally independent clauses, Q-binding into temporally dependent clauses is permitted with both existential and universal quantifiers:

(18) a. Someone$_i$ said that he$_i$ would leave on Monday.
b. Everyone$_i$ said that he$_i$ would leave on Monday.

The lack of contrast between existential and universal Q-binding into temporally dependent clauses follows on our analysis from the fact that temporally dependent clauses do not replace the propositional variable associated with the embedding clause at the discourse level. Thus, the dynamic representation of (18a) and (18b) is as in (19) and (20), respectively:

(19) ∃x[x is a person ∧ x said that x would leave on Monday ∧ p]
(20) ∀x[x is a person → x said that x would leave on Monday] ∧ p

In both (18a) and (18b), the S point of the embedded clause is linked to the matrix E point. The embedded clause then cannot replace the propositional variable associated with the matrix clause, as shown in (19) and (20). Since the scope relations of (18a) and (18b) are not changed from LF to the discourse level, the variables corresponding to the pronouns can be bound by the existential or the universal quantifier.

5.2. *Scope Interaction.*

5.2.1. *Existential and Universal Quantifiers*. As is well known, cross-sentential binding by an indefinite in a sequence like (21a) below is only possible if the indefinite has wide scope. This is explained in Chierchia's system, since the position of the propositional variable is determined by the quantifier that has wide scope. After the dynamic representation of the second sentence of (21a) fills in for the propositional variable of the first sentence, the pronoun falls inside the scope of the indefinite if the indefinite takes wide scope, as shown in (21b), but not if the universal quantifier takes wide scope, as shown in (21c):

(21) a. Every student drove a car$_i$. It$_i$ was fast.
b. ∃x[x is a car ∧ ∀y[y is a student → y drove x] ∧ p] + [x was fast ∧ p]
= ∃x[x is a car ∧ ∀y[y is a student y drove x] ∧ x was fast ∧ p]
c. ∀x[x is a student → ∃y[y is a car ∧ x drove y]] ∧ p + [y was fast ∧ p]
= *∀x[x is a student → ∃y[y is a car ∧ x drove y]] ∧ y was fast ∧ p

A similar state of affairs is found in instances involving multiple quantification and binding into temporally independent clauses. Thus, a sentence like (22a) below is well-

formed when the existentially quantified phrase takes wide scope but not when the universally quantified phrase takes wide scope. In other words, (22a) can only mean that there is a specific man such that all women said that that man will be a father. Under the approach pursued here, the binding possibilities of (22a) receive a straightforward explanation. If the existential quantifier takes wide scope, the pronoun remains inside its scope after the temporally independent embedded clause replaces the propositional variable, as shown in (22b). By contrast, if the universal quantifier takes wide scope, the pronoun falls outside its scope after propositional variable replacement, as shown in (22c), and binding is not allowed:

(22) a. Every woman told some man$_i$ that he$_i$ will be a father.
b. ∃x[x is a man ∧ ∀y[y is a woman → y told x e ∧ [e ≡ x will be a father ∧ p]] ∧ p]
= ∃x[x is a man ∧ ∀y[y is a woman → y told x e] ∧ e ≡ x will be a father ∧ p]
c. ∀x[x a woman → ∃y[y is a man ∧ x told y e ∧ [e ≡ y will be a father ∧ p]]] ∧ p
= *∀x[x a woman → ∃y[y is a man ∧ x told y e]] ∧ e ≡ y will be a father ∧ p

(22a) contrasts with (23a) below, which has a temporally dependent embedded clause. (23a) allows interclausal Q-binding regardless of scope interaction. In other words, it can mean either that there is a specific man to whom all women said: "You will be a father", or that each woman said to a (possibly different) man: "You will be a father". This fact is also explained under the present analysis. Since the embedded clause of (23a) does not have an unlinked S point, it cannot replace the propositional variable associated with the matrix clause. Hence, the scope relations of (23a) established at LF are preserved at the discourse level and the pronoun can be bound with either scope order, as shown in (23b-c):

(23) a. Every woman told some man$_i$ that he$_i$ would be a father.
b. ∃x[x is a man ∧ ∀y[y is a woman → y told x that x would be a father] ∧ p]
c. ∀x[x a woman → ∃y[y is a man ∧ x told y that y would be a father]] ∧ p

The contrast between the binding possibilities of (22a) and (23a), therefore, argues in favor of the discourse level distinction between temporally independent and dependent embedded clauses proposed here.

5.2.2. *Existential Quantifiers and Negation.* A similar pattern of scope interaction is exhibited by negation and existential quantifiers. Cross-sentential binding by the indefinite of sequences like (24a) below is only possible if the indefinite takes wide scope. This fact is explained under an analysis in which negation, like the universal quantifier, takes the

propositional variable outside of its scope (see Groenendijk and Stokhof (1991), Chierchia (1993), among others). After propositional variable replacement, the variable corresponding to the pronoun ends up within the scope of the indefinite when the indefinite takes wide scope, as shown in (24b), but not when the negation takes wide scope, as shown in (24c):

(24) a. A teacher$_i$ wasn't available. He$_i$ was busy.
b. ∃x[x is a teacher ∧ ¬ [x was available] ∧ p] + [x was busy ∧ p]
= ∃x[x is a teacher ∧ ¬ [x was available] ∧ x was busy ∧ p]
c. ¬∃x[x is a teacher ∧ x was available] ∧ p + [x was busy ∧ p]
= *¬∃x[x is a teacher ∧ x was available] ∧ x was busy ∧ p

As expected under our analysis, the contrast shown in (24) also emerges in the case of binding into temporally independent clauses, and does not appear in the case of binding into temporally dependent clauses, as illustrated in (25) and (26), respectively:

(25) a. A teacher$_i$ didn't say that he$_i$ will leave.
b. ∃x[x is a teacher ∧ ¬[x said e ∧ [e ≡ that x will leave ∧ p]] ∧ p]
= ∃x[x is a teacher ∧ ¬[x said e] ∧ e ≡ that x will leave ∧ p]
c. ¬∃x[x is a teacher ∧ x said e ∧ [e ≡ that x will leave ∧ p]] ∧ p
= *¬∃x[x is a teacher ∧ x said e] ∧ e ≡ that x will leave ∧ p

(26) a. A teacher$_i$ didn't say that he$_i$ would leave.
b. ∃x[x is a teacher ∧ ¬[x said that x would leave] ∧ p]
c. ¬∃x[x is a teacher ∧ x said that x would leave] ∧ p

After the embedded clause of (25a) replaces the propositional variable associated with the matrix clause, the variable corresponding to the pronoun falls within the scope of the indefinite if the indefinite takes wide scope, as shown in (25b), but not if negation takes wide scope, as shown in (25c). The bound reading of the pronoun in (26a), on the other hand, allows either the wide or narrow scope reading of the indefinite, represented in (26b) and (26c), respectively, since in either case the variable corresponding to the pronoun remains within its scope.

5.3. *Licencing of Negative Polarity Items.* Uribe-Etxebarria (1993) notes that the licensing of a negative polarity item (NPI) in an embedded clause is sensitive to the temporal interpretation of the embedded clause, as shown in (27) (her (23a) and (23c)):

(27) a. Mary didn't say that Ann would read any books tomorrow.
b. *Mary didn't say that Ann will read any books tomorrow.

In the terms adopted here, the contrast in (27) shows that negation in an embedding clause can license an NPI within a temporally dependent, but not within a temporally independent clause. Assuming that an NPI must be within the scope of negation at the discourse level, the contrast in (27) is explained on our analysis by the fact that temporally independent clauses replace the propositional variable, as opposed to temporally dependent clauses. Since the embedded clause of (27a) does not replace the propositional variable associated with the matrix clause, as represented in (28) below, the NPI is licensed, since it is within the scope of negation. The embedded clause of (27b), by contrast, replaces the propositional variable, as represented in (29), placing the NPI outside the scope of negation:

(28) ¬[Mary said that Ann would read any books tomorrow] ∧ p

(29) ¬[Mary said e ∧ [e = that Ann will read any books tomorrow ∧ p]] ∧ p
= ¬[Mary said e] ∧ e = that Ann will read any books tomorrow ∧ p

5.4. *Availability of Counterfactual Readings*. The embedded clause of a sentence like (30) below, in which both the matrix and the embedded clause have past tense morphology, is ambiguous between a temporally dependent and an independent reading:

(30) John said that Peter was leaving on Friday.

Hornstein (1990) argues that under the temporally dependent reading, the embedded clause of (30) has present tense structure, and that the past tense morphology is actually a reflex of the evaluation of the present tense embedded clause with respect to the past event in the matrix clause. This is confirmed by the possible interpretations of a sentence such as (31) below. When the present tense is modified by a future time adverb in English, it allows a temporal interpretation, as illustrated in (32), whereas a past tense with future time adverbial modification allows only a counterfactual (nontemporal) reading, as exemplified in (33). The embedded clause of (31) allows both a temporal and a counterfactual reading. This is what is predicted if the embedded clauses of (30) and (31) are ambiguous between a present tense and a past tense structure (see Hornstein (1990:162) for further discussion).

(31) John said that Peter was leaving tomorrow .
(32) Peter is leaving tomorrow. (temporal reading)
(33) Peter was leaving tomorrow. (counterfactual reading)

Combining Hornstein's analysis of this tense structure ambiguity with our account of interclausal Q-binding, we predict that (34a) below is ambiguous between the readings in (34b) and (34c), whereas (35a) can only have the reading in (35b):

(34) a. Someone$_i$ said that he$_i$ was leaving tomorrow.
b. ∃x[x is a person ∧ x said that x was leaving tomorrow ∧ p]
c. ∃x[x is a person ∧ x said e ∧ [e = that x was leaving tomorrow ∧ p] ∧ p]
= ∃x[x is a person ∧ x said e ∧ e = that x was leaving tomorrow ∧ p]

(35) a. Everyone$_i$ said he$_i$ was leaving tomorrow.
b. ∀x[x is a person → x said that x was leaving tomorrow] ∧ p
c. ∀x[x is a person → x said e ∧ [e = that x was leaving tomorrow ∧ p]] ∧ p
= *∀x[x is a person → x said e] ∧ e = that x was leaving tomorrow ∧ p

(34b) and (35b) represent the temporally dependent reading of (34a) and (35a), respectively, and (34c) and (35c) represent the independent reading. According to the representations in (34), both the temporal and the counterfactual reading for the embedded clause of (34a) are available. In other words, someone may have said either "I am leaving tomorrow" or "I was leaving tomorrow". The representations in (35), on the other hand, show that only the temporal reading is available, i.e., each person said "I am leaving tomorrow" and not "I was leaving tomorrow". Although the judgments are subtle, they point to the predictions made by the representations in (34b-c) and (35b-c), lending further support to the analysis advocated here.

5.5. *Binding into Nonfinite Complement Clauses.* We have proposed that an unlinked S point is always associated with a propositional variable. In fact, a stronger claim can be made: a propositional variable *can only* be associated with an unlinked S point. This predicts that pronoun binding into a clausal complement that does not have an S point, such as an infinitival or gerundive complement (see Hornstein (1990)), should be possible regardless of the type of quantifier. This is due to the fact that the embedded clause could never replace the propositional variable associated with the matrix clause. This prediction seems to be met, as exemplified by (36):[8,9]

(36) Everyone$_i$/someone$_i$ remembered locking/to lock his$_i$ car.

6. *Apparent Counterevidence: Tense Sequencing in Modern Greek*. Modern Greek sentences such as (37) below seem to be an obvious counterexample to the analysis

developed here. If the present tense morphology of the embedded clause in (37) is an indication that the embedded clause has not undergone SOT, binding should not be permitted. At the discourse level, after the dynamic representation of the embedded clause replaces the propositional variable associated with the matrix clause, the pronoun should fall outside the scope of the universal quantifier.

(37) Kathenas$_i$ ipe oti pro$_i$ ine arostos.
everyone said that (he) is sick
'Everyone$_i$ said that he$_i$ was sick.'

Sentences like (38) below, however, show that Modern Greek differs from English with respect to the temporal interpretation assigned to embedded clause present tense morphology. Based on common knowledge, it is not felicitous to temporally locate Mary's pregnancy as contemporaneous with both the utterance time and her saying, which took place two years before the utterance time (hence, the oddity of the literal translation of (38)). The only pragmatically plausible interpretation for (38) is that Mary was pregnant at the time of her saying (two years ago). In other words, in languages like Modern Greek, as opposed to languages like English, present tense morphology embedded in a clause with past tense morphology can also allow a temporally dependent reading, in addition to the independent reading (see Comrie (1985), Enç (1987) and Hornstein (1990), among others).

(38) Prin dio chronia i Maria$_i$ ipe oti pro$_i$ ine egios.
before two years the Maria said that (she) is pregnant
'Two years ago Maria$_i$ said that she$_i$ was pregnant.'

This property of Modern Greek present tense morphology leads us to expect that (37) is well-formed only under a temporally dependent reading, as in English. This prediction is borne out by sentences like (39) below, in which the present tense adverbial modification *aftes tis meres* ('these days') forces the temporally independent reading. If the embedded clause does not undergo SOT in order to be compatible with the adverbial modification, it must replace the propositional variable associated with the matrix S point. Given that the relevant propositional variable is outside the scope of the universal quantifier, binding of the pronoun is not allowed.[10]

(39) *Kathenas$_i$ ipe oti pro$_i$ ine arostos aftes tis meres.
everyone said that (he) is sick these the days
'Everyone$_i$ said that he$_i$ is sick these days.'

7. *Conclusion*. We have argued that interclausal tense relations are represented at the discourse representation level. Adopting the discourse representation of Chierchia (1992), we have shown that temporally independent embedded clauses, like independent sentences, replace propositional variables, while temporally dependent clauses do not. This difference between temporally independent and dependent embedded clauses with respect to their dynamic representation explains their different behavior in constructions involving interclausal quantifier binding, scope interaction, licensing of negative polarity items, and counterfactual readings. In as much as it provides a uniform account for these data, our analysis shows that temporal dependency, besides being encoded morphologically and syntactically, must also be encoded at the discourse level.

8. *Notes*

1. Throughout this paper we keep to Chierchia's informal presentation of Dynamic Type Theory. The reader is referred to the original paper for formalization and further discussion (see also Chierchia (1993)).
2. Under this perspective, the SOT-rule may not be optional, as proposed by Hornstein (1990). If the approach pursued here is on the right track, the SOT-rule should be taken to be obligatory when possible.
3. The reading represented in (9) is analogous to that of the sentence "John said this: that Mary will leave on Monday", where the direct object position is filled with a demonstrative.
4. See Raposo and Uriagereka (1993) for related discussion about the anchoring of contexts by tense.
5. Sections 5.1, 5.2.1 and 5.3 are based on Nunes and Thompson (1993b). See that paper for additional evidence concerning interclausal binding in multiembedding constructions, and Nunes and Thompson (1993a) for evidence concerning the interaction of tense dependencies and the availability of *de se* and non-*de se* readings.
6. Following Russell (1905) and Kartunnen (1977), respectively, we assume that indefinites and wh-expressions are semantically existential quantifiers, which predicts their analogous behavior in cross-sentential and interclausal Q-binding, as shown in (i) and (ii):

(i) a. A man$_i$ arrived. He$_i$ was handsome.
b. A man$_i$ said the he$_i$ will leave on Monday.

(ii) a. I don't know exactly who$_i$ arrived. But I know that he$_i$ was handsome.
b. Who$_i$ said that he$_i$ will leave on Monday?

7. Enç (1987:654) takes the contrast in (i) below as evidence for her claim that present tense must get out of the scope of past tense at LF. According to her analysis, if the embedded S' is adjoined to a position higher than the position of the raised quantifier, the pronoun will fail to be bound; on the other hand, if the quantifier

raises past the embedded S' and binds the pronoun, an instance of Weak Cross Over will arise. Enç's proposal, however, wrongly predicts that (ii) should exhibit the same contrast as (i) (see Hornstein (1990:164) for additional discussion of Enç's analysis). The hypothesis proposed in section 4 that temporally dependent and independent clauses differ in their discourse representations, on the other hand, provides a straightforward explanation for the contrast between (i) and (ii), as shown in the text.

(i) Every child$_i$ said that he$_i$ was/*is tough.
(ii) Some child$_i$ said that he$_i$ was/is tough.

8. The tense structure of subjunctive clauses presumably does not have an unlinked S point. Thus, we should expect there to be no contrast between existential and universal quantifiers with respect to pronoun binding into subjunctive clauses. This prediction is met, as illustrated in (i):

(i) Everyone$_i$/someone$_i$ wishes that he$_i$ were smart.

9. Interesting support for this proposal comes from the fact that independent infinitival clauses do not appear to successfully form a discourse sequence with a following sentence. Suppose, for instance, that (ia) and (ib) below are titles of a written text, whose first sentence is given in (ii). There is a contrast between (ia) and (ib) with respect to binding of the pronoun of (ii), which is accounted for if infinitivals are not associated with a propositional variable. If there is no propositional variable in the discourse representation of (ib) to be replaced by the dynamic representation of (ii), the pronoun of (ii) remains outside the scope of the indefinite at the discourse level. The reason why (ib) is not as bad as we should expect may be attributed to the fact that the presupposition that a title must be somehow connected to the following text makes it possible for pronoun binding to be accommodated.

(i) a. How you convince a student$_i$ of the existence of traces.
b. ?How to convince a student$_i$ of the existence of traces.
(ii) First, present him$_i$ with the *wanna*-contraction facts.

10. For some English speakers, the contrast between *will* and *would* as far as interclausal binding by a universal quantifier is concerned is stronger than the one between simple past and simple present embedded under a past tense clause. We speculate that these speakers may marginally admit a temporally dependent reading for a present under past structure, similar to what happens in Modern Greek, which disguises the distinction between universal and existential quantifiers in interclausal binding.

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The organization of Nasal either as a dependent of the SP node or the feature SV does not reflect two parameters of Universal Grammar, but two competing theories of feature organization. In the SP articulator model, the hierarchical organization of features reflects the phonetic and physiological facts of speech production. In the SV model, the hierachical organization of features reflects their phonological patterning. Which of the two models is accurate cannot be decided based on the data presented in this paper. However, unless we believe that languages differ in that some organize their features according to the articulators that are involved in their production, while other languages organize their features according to phonological criteria, one of the two models should do.

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RELATIVIZING CASE THEORY

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1. Introduction*

Two positions have been taken with respect to the status of the Case Filter[1] and the Visibility Condition[2] in Universal Grammar. Some scholars (see Chomsky and Lasnik (1991), for instance) claim the Case Filter can be reduced to the Visibility Condition, whereas others (see Raposo and Uriagereka (1990), for example) argue that these are separate well-formedness conditions in the theory of grammar. In this paper I will take the latter position and explore some of the consequences such a hypothesis has with respect to the types of Case available in Universal Grammar.

If the Case Filter is a PF condition on nominals independent from the (LF) Visibility Condition on arguments, there are four logical possibilities as to how a given Case K is able to make an element interpretable at the relevant level of representation, as shown in (1):

(1) a. K is active at PF and at LF ([+PF,+LF])
b. K is active neither at PF nor at LF ([-PF,-LF])
c. K is active at LF but not at PF ([-PF,+LF])
d. K is active at PF but not at LF ([+PF,-LF])

(1a) refers to the standard instances where nominal arguments are said to be assigned Case, yielding grammatical outputs, as in (2) below. In (2), both nominal arguments of the verb *see* are assigned Case: *John* receives nominative and *the bug*, accusative. Given that (2) is grammatical and, therefore, violates neither the Case Filter nor the Visibility Condition, we may say that the Cases assigned by the finite Infl and the verb in (2) are [+PF,+LF] Cases.

(2) John saw the bug.

(1b) is equivalent to lack of Case assignment. Thus, we can say that in (3) below, either the passivized verb does not assign Case to its complement (on the reasons for this, see section 3.2 below), or that the Case assigned by *destroyed* to *the city* is able to satisfy neither the Case Filter nor the Visibility Condition (it is a [-PF,-LF] Case). In both situations an ungrammatical result obtains.

(3) *It was destroyed the city by the enemy.

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1 "*[$_N$ α], where α includes a phonetic matrix, if N has no Case" (Chomsky (1981:49), following J.-R. Vergnaud).

2 "An element is *visible* for θ-marking only if it is assigned Case" (Chomsky (1986:94), following J. Aoun).

(1a) and (1b), therefore, have the same empirical coverage as the "classical" Case Theory, formulated in Chomsky (1981). If the possibilities (1c) and (1d) can be empirically motivated, the hypothesis that the Case Filter and the Visibility Condition are independent conditions will receive independent support. This is the line of reasoning I will pursue here.

The paper is organized as follows. In section 2 I propose that what Chomsky and Lasnik (1991) call "null Case" is an instantiation of the type of Case listed in (1c), a [-PF,+LF] Case, and then I discuss *wanna*-contraction and the distribution of PRO under this perspective. The discussion of the [+PF,-LF] type of Case in section 3 constitutes the bulk of the paper. It will be argued that the auxiliary ***have*** in English and the participial Agr head in Lithuanian assign a [+PF,-LF] Case, for they are able to license a participle affix only if it is not assigned a θ-role. In addition, it will be shown that the crosslinguistic variation with respect to the presence and distribution of [+PF,-LF] Case-marking auxiliaries in languages like English, Lithuanian and Italian follows from economy considerations prohibiting insertion of superfluous features in the course of a derivation. Finally, it will be claimed that Frisian infinitives provide morphological evidence for postulating a [+PF,-LF] type of Case. Some concluding remarks are then presented in section 4.

2. [-PF,+LF] Case

The Visibility Condition of Chomsky (1981:334) includes an undesirable disjunction. Every θ-chain except the one headed by PRO must be Case-marked:

> "Suppose that the position *P* is marked with the θ-role *R* and C = (α_1, ... , α_n) is a chain. Then C is assigned *R* by *P* if and only if for some *i*, α_i is in position *P* and C has Case **or is headed by PRO**." [emphasis added, JMN]

Chomsky and Lasnik (1991:80) proposes that such a disjunction can be eliminated if PRO also receives Case. But since the Case that presumably licenses PRO does not license an overt NP, as shown in (4) below, Chomsky and Lasnik take it to be "a Case different from the familiar ones", referring to it as "null Case".

(4) a. It's necessary [$_{CP}$ [$_{AgrP}$ PRO [$_{Agr'}$ Agr [$_{TP}$ to leave early]]]]
b. *It's necessary [$_{CP}$ [$_{AgrP}$ Mary [$_{Agr'}$ Agr [$_{TP}$ to leave early]]]]

I would like to claim that the inventory of types of Case available in UG proposed in (1) provides us with the means to distinguish Chomsky and Lasnik's null Case from the more familiar types of Case, such as the ones assigned by finite Infl or by a transitive verb, for example. If Chomsky and Lasnik's null Case is taken to be in fact the type of Case listed in (1c) (a [-PF,+LF] Case), the contrast between (4a) and (4b) can be easily explained. In (4b), *Mary* satisfies the Visibility Condition, as does PRO in (5a), by being assigned a [+LF] Case by the infinitival Agr. (4b), however, violates the Case Filter, because *Mary* does not receive a [+PF] Case. By contrast, PRO in (4a) vacuously satisfies the Case Filter, if we assume that it does not have a representation at PF.[3]

[3] Under such an approach, PRO contrasts with *pro* in that the latter is lexically specified as having a representation at PF and, therefore, must be assigned a [+PF] Case. Admittedly, until a better understanding of the representation of null elements at PF is achieved, such a distinction between PRO and *pro* is stipulative. However, it is, at most, as stipulative as current accounts. In Chomsky and Lasnik's (1991:78-80) theory, for instance, the fact that PRO must receive null Case, whereas *pro* must receive "regular" Case, does not follow from anything.

With the four-way distinction of types of Case proposed in (1), therefore, the Visibility Condition may simply require that a thematic chain be Case-marked and the appropriate type of Case which this chain should be assigned ([±PF,±LF]) will depend on the morphological nature of its head.

2.1. [-PF,+LF] Case and *Wanna*-Contraction

This approach also provides a simple explanation for the different behavior of PRO and variables with respect to *wanna*-contraction constructions. As is well known, variables block *wanna*-contraction, whereas PRO does not:

(5) a. Who$_i$ do you want PRO to greet t_i?
b. Who do you wanna greet?
(6) a. Who$_i$ do you want t_i to greet Mary?
b. *Who do you wanna t_i greet Mary?

In both (5) and (6), the operator-variable chain receives a [+PF,+LF] Case from the verbs *greet* and *want*, respectively, whereas the chain headed by PRO in (5) is assigned a [-PF,+LF] Case by the infinitival Agr. Assuming that *wanna*-contraction is a PF phenomenon, the variable in (6) blocks contraction, because it receives a [+PF,+LF] Case and, therefore, is "active" at PF. By contrast, since PRO does not have a representation at PF, it does not interfere with *wanna*-contraction or any process that takes place at this level.

2.2. Distribution of PRO

The restricted distribution of PRO in *LGB* was believed to follow from the PRO Theorem. In the present analysis, the absence of PRO in what corresponds to *LGB*'s governed domains follows either from the lack of the relevant Case or from an "overload" of Case.

Consider a construction like (7) below, for example. Under the assumption that passive verbs do not assign Case to their object (see section 3.1 below), PRO in (7) violates the Visibility Condition, for it receives a θ-role, but no [+LF] Case.

(7) *$I t_{expl}$ was greeted PRO by John

Let us now consider constructions where PRO receives a [+LF] Case, but the resulting sentence is still ruled out, as exemplified by (8) below. Since the Agr head of finite clauses assigns a [+PF,+LF] Case (see discussion above), PRO in (8) satisfies the Visibility Condition and the sentence should be well formed.

(8) *PRO left

I propose that (8), however, violates the Principle of Full Interpretation (see Chomsky (1986:98)). It was claimed above that PRO has no representation at PF. If so, when PRO is assigned a [+PF,+LF] Case by the Agr of the finite clause in (8), there is no nominal element at PF to bear the [+PF] Case feature. Hence, although Case-assignment to PRO in (8) satisfies the Visibility Condition, it also

leaves a [+PF] Case feature stranded at PF. Under the plausible hypothesis that such a feature can only receive an interpretation when associated to a nominal element, (8) yields a violation of the Principle of Full Interpretation.

If this is right, we predict that if a language has an independent bearer for the [+PF] feature in sentences analogous to (8), PRO is allowed to receive Case from the Agr head of a finite clause. This prediction is borne out by "impersonal *se/si* constructions" in Romance, as exemplified by the Portuguese sentence in (9):

(9) Aqui se trabalha bastante.
here SE works hard
'Here people work hard.'

Having observed that the semantic restrictions on impersonal *se*-constructions are the same as the ones associated with PRO (see Cinque (1988), among others), Raposo and Uriagereka (1993) propose that these constructions involve a PRO in the subject position, which is prevented from being governed by the clitic *se*. Although I will follow Raposo and Uriagereka in assuming a PRO in these constructions, I will depart from them with respect to the role ascribed to the clitic *se*. Under the perspective of the present analysis, the clitic *se* of impersonal constructions is just a [+PF] Case bearer. PRO in (9), for instance, can receive a [+PF,+LF] Case from Agr without giving rise to a violation of the Principle of Full Interpretation, because the clitic *se* can bear the [+PF] Case feature. In fact, since it is a nominal clitic, *se* not only can, but must receive a [+PF] Case in order to comply with the Case Filter.

Evidence for this approach comes from constructions like (10) below, in which the clitic *se* is attached to a transitive verb yielding a slight change in meaning, which need not concern us here:

(10) a. João utilizou (*d)aqueles documentos.
b. João se utilizou *(d)aqueles documentos
João (SE) utilized of-those documents
'João used those documents.'

(10a) shows that the verb *utilizar* licenses its nominal object without resorting to the dummy preposition *de*. In the terms adopted here, *utilizar* assigns a [+PF,+LF] Case to its object. When *se* is added, the insertion of the dummy case marker becomes necessary, as shown in (10b). Since the clitic *se* must receive a [+PF] Case, when a dummy Case-marker is not inserted in (10b), a Case Filter violation arises because either the clitic or the object NP does not receive a [+PF] Case.[4]

The last construction I would like to examine in this section involves instances where PRO apparently can receive a [-PF,+LF] Case by the Agr head of

[4] Interestingly, some verbs that underwent a historical change that deleted the so-called "inherent *se*" came to license their object without the help of a preposition, as illustrated in (i):

(i) a. O rei assinou-se nos documentos (Old Portuguese)
the king signed-SE on the documents
b. O rei assinou os documentos (Modern Portuguese)
the king signed the documents
'The king signed the documents.'

an infinitival clause, but the result is still ungrammatical, as exemplified in (11):

(11) *I consider [$_{AgrP}$ PRO to be intelligent]

(11) can be accounted for if complement clauses must also satisfy the Visibility Condition. If so, the infinitival clause of (11) must be Case-marked by *consider* in order to be visible at LF. Assuming that the infinitival clause of (11) is an AgrP, the Case assigned by the matrix verb percolates down to the Agr head. By being in a spec-head configuration, PRO and the Agr head will have to agree with respect to ϕ-features. The problem that then arises is that PRO ends up receiving a [+PF,+LF] Case through spec-head agreement. Since PRO does not have a representation at PF, the [+PF] Case feature assigned to it does not have a bearer at PF and, therefore, a violation of the Principle of Full Interpretation will arise.

Other constructions disallowing PRO can be accounted for in similar ways. But given that their examination requires a more detailed discussion of the internal structure of non-finite projections and their subcategorization, which would go beyond the scope of this paper, I will now move on to the discussion of the possibility mentioned in (1d): a [+PF,-LF] Case.

3. [+PF,-LF] Case

In order to empirically motivate a [+PF,-LF] Case, we need a test like the one represented in (12), where a certain Case K is able to license a nominal element only if it is not assigned a θ-role:

(12) a. [$K_{Case\text{-}assigner}$ $X_{[\alpha V,+N],\ -\theta\text{-role}}$]
b. *[$K_{Case\text{-}assigner}$ $X_{[\alpha V,+N],\ -\theta\text{-role}}$]

I claim that such a configuration arises in English (see Nunes (1993a)) and Lithuanian participle constructions (see Nunes (1994)), as shown below.

3.1. Participle Constructions in English

Baker, Johnson and Roberts (1989) propose that the passive morpheme *-en* in English is an argument base-generated as the head of Infl, as represented in (13) below, where θ_E stands for external θ-role. Based on Roberts's (1987) proposal that the "passive" *-en*, exemplified in (13a), and the "perfective" *-en*, exemplified in (14a), are in fact instances of the same morpheme,[5] Nunes (1993a) extends Baker, Johnson and Roberts's representation for passive sentences to perfective constructions, as shown in (14b):

(13) a. The car was stolen.
b. [the car]$_i$ was [$_{IP}$ -en$_{\theta E}$ [$_{VP}$ steal- t$_i$]]
(14) a. John had stolen the car.
b. John$_i$ had [$_{IP}$ -en [$_{VP}$ t$_i$ steal- the car]]

If this is correct, we have to explain why *-en* behaves like an argument in

[5] As Roberts (1987:40) observes, "the combination of either *-en* [the "passive" or the "perfective" *-en*, JMN] with a verb-stem triggers exactly the same phonological form in all instances, including suppletions and lexical gaps."

(13), as argued by Baker, Johnson and Roberts, but not in (14), where it does not receive θ-role.[6] Following a suggestion by Jaeggli (1986, fn. 6), according to which an element must be N-like to carry Case and θ-role, Nunes (1993) proposes that the participle morpheme is a [-V,+N] element and, as such, a possible θ-role bearer.[7] Evidence for taking the participle affix as [-V,+N] element comes from the fact that in languages with overt agreement, participial verbal forms may take nominal agreement markers, as illustrated by the Portuguese sentence in (15) (see also the Lithuanian sentence in (22) below):

(15) As meninas não foram vistas
the-fem-pl girl-fem-pl not were-3pl seen-fem-pl
'The girls were not seen.'

To say that an element must be N-like to receive Case and θ-role, however, does not entail that an N-like element must be a thematic argument. Expletives are a good example of this. Although they cannot be assigned a θ-role, they must be Case-marked.[8] Based on these considerations, Nunes (1993a) claims that, as opposed to true referential expressions, which must be associated with a θ-role, the participle affix is assigned a θ-role only when forced to by the θ-Criterion. Thus, *-en* acts as an argument in (13b), since there is no element in specifier of VP to bear the external θ-role of the verb, but not in (14b), given that the two θ-roles of *steal* are assigned to the chains (*John*$_i$, t_i) and (*the car*).[9]

Let us now turn to the question of how the participle morpheme satisfies the Case Filter. Roberts (1987) proposes that in sentences like (13a), *-en* is Case-marked by the main verb, which triggers the movement of the object NP, since the auxiliary *be* is not a Case-assigner; in sentences like (14a), on the other hand, *-en* is Case-marked by the auxiliary *have*, which allows the main verb to Case-mark its object. Nunes (1993a) points out, however, that if this were the whole story, a sentence like (16) should be ambiguous between the two readings of (17):

[6] For Roberts (1987:41), *-en* is a clitic that either forms a θ-chain with a phrase that moves from subject position to VP in passives, or forms a θ-chain with the subject, Infl and the auxiliary *have* in perfective constructions. As will become clear, the account to be developed here differs from Roberts's analysis on various points.

[7] This proposal shares with Roberts (1987) and Baker, Johnson and Roberts (1989) the intuition that *-en* is nominal in some sense. However, it does not commit itself to the potentially problematic claim that "*-en* is syntactically a clitic but phonologically an affix" (Baker, Johnson and Roberts (1989:223)).

[8] Another example is provided by the clitic *se* in Portuguese, as discussed in section 2.2. Although *se* must receive a [+PF] Case due to its nominal properties, it may not receive a θ-role.

[9] Passive sentences involving an "agent *by*-phrase" like (i) below require further comment. For the purposes of the present discussion, I will follow Baker, Johnson and Roberts (1989) in assuming that when the participle affix receives a θ-role, it may form a kind of "clitic doubling chain" with the agent *by*-phrase, represented in (ib) through the coindexation with the index *θe*. This amounts to saying that even when the agent *by*-phrase is present, there is no element in the specifier of VP, which forces VP to assign its external θ-role to *-en*:

(i) a. The cake was eaten by Peter.
b. [the cake]$_i$ was [$_{IP}$ -en$_{\theta e}$ [$_{VP}$ eat [by Peter]$_{\theta e}$]]

(16) It had eaten the meat.
(17) a. It$_i$ had [$_{IP}$ -en [$_{VP}$ t_i eat- the meat]]
b. *It$_{expl}$ had [$_{IP}$ -en$_{\theta e}$ [$_{VP}$ eat- the meat]]

In (17a) the external θ-role is assigned to the referential pronoun *it* in the specifier of VP, which raises to the specifier of Infl in order to get Case; therefore, the participle affix is assigned no θ-role in accordance with the θ-Criterion. On the other hand, in the absence of an element in the specifier of VP to bear the external θ-role in (17b), the θ-Criterion requires that it be assigned to the participle affix, and an expletive is then inserted in subject position. This structure would mean something like 'the meat had been eaten'.

(17) is in fact an instantiation of the abstract configuration described in (12): the auxiliary *have* is a Case-assigner that licenses only nominal elements that are not θ-marked. From the contrast between (17a) and (17b), Nunes (1993a) concludes that the auxiliary *have* assigns a [+PF,-LF] type of Case.[10] Thus, the participle affix in both (17a) and (17b) satisfies the Case Filter by being assigned a [+PF] Case by *have*. Since the participle affix of (17a) is not θ-marked, it vacuously satisfies the Visibility Condition at LF. By contrast, the participle affix of (17b) violates the Visibility Condition because it receives a θ-role, but no [+LF] Case.

3.2. Participle Constructions in Lithuanian

It has been claimed in the literature (see Timberlake (1982), Baker, Johnson and Roberts (1989), among others) that, beside standard passives with transitive verbs, Lithuanian also has impersonal passives of unergative, unaccusative and raising verbs, and even impersonal passives of standard passives. Nunes (1994) argues that such an analysis is mistaken, and that what has been taken to be an impersonal passive in Lithuanian is much closer to perfective constructions in English than to real passive constructions.

More specifically, Nunes (1994) claims that the present participle morpheme *-m-* and the past participle morpheme *-t-* in Lithuanian, similarly to *-en* in English, are nominal elements that head a projection of TP. By being nominal elements, the Lithuanian participle morphemes are also possible θ-role bearers. Thus, when there is no element in the specifier of VP to be assigned the external θ-role, the θ-Criterion forces the assignment of this θ-role to the participle affix, yielding a passive construction. In this respect, there is no structural difference between English and Lithuanian passives. Lithuanian differs from English, however, in that what corresponds to the "agent *by*-phrase" in English passives (see fn. 9) does not require the insertion of a preposition, as shown in (22) (from Timberlake (1982)):

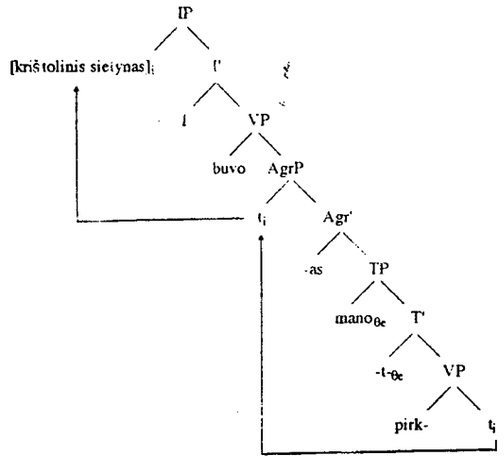
(22) Krištolinis sietynas buvo mano pirk-t-as.
chandelier-nom/m/sg was I-gen buy-part-nom/m/sg
'The chandelier was bought by me.'

Nunes (1994) accounts for this difference by proposing that Lithuanian participle morphemes, like regular nouns, assign genitive Case to their specifiers.

[10] I will leave for future research a discussion of the compatibility of the present analysis with Freeze's (1992) idea, adopted in Kayne (1993), that *have* should be analyzed as an instance of *be* to which a preposition has been incorporated.

Evidence for this proposal is provided by the specific genitive form that certain pronouns take in participle constructions. According to Timberlake (1982, fn. 2), 1st person sg., 2nd person sg. and reflexive pronouns distinguish two genitive forms: one used to express possession, and the other used for complements of verbs or prepositions. *Mano* and *manęs*, for example, are the "possessive" and the "verbal/prepositional" genitive forms of the 1st person sg. pronoun, respectively. As we can see in (22), it is the possessive genitive that is used to express the agent of a passive. This is exactly what we should expect if possessive genitive is assigned by nouns and if the participle affix is a [-V,+N] element. The passive sentence in (22) is thus be represented as in (23) (irrelevant details omitted):

(23)



Since there is no element in the specifier of VP in (23) to receive the external θ-role, this θ-role is assigned to the participle morpheme *-t-* heading TP, which, as a nominal element, is a possible θ-role bearer. The participle affix forms a type of clitic doubling chain with the agent phrase *mano* (see fn. 9) and assigns genitive Case to it. After the verb raises to the head of TP, it assigns its Case to the participle affix; the object then moves to matrix subject position, where it receives nominative Case from the matrix Infl.[11]

[11] The movement of the object to the specifier of AgrP across the specifier of TP in (23) complies with the Shortest Movement of Chomsky (1992:24). After the verb moves to the head of TP, and the complex V-T subsequently moves to the head of AGRP in (23), the minimal domain (see Chomsky (1992:16)) of the chain ([V-T]$_j$, t_j) is {spec/AgrP, spec/TP, VP}. Given that the specifier of AgrP and the specifier of TP are in the same minimal domain, they are equidistant targets of movement for the object NP. Thus, movement of *krištolinis sietynas* ('the chandelier') across *mano* ('by me') in (23) is a licit operation, rather than constituting an instance of super-raising (see Nunes (1994), for details).

In this approach, the availability of apparent impersonal passives like (24) below (from Timberlake (1982)) follows from the participle morphemes' ability to assign Case to their specifiers. In (24), the verb is unaccusative; therefore, the participle affix in (24) receives no θ-role, and the object receives no Case in its position. *Vaiko* ('the child') then raises to the specifier of TP, where it is assigned genitive Case by the participle morpheme, as represented in (25):

(24) Vaiko serga-m-a.
child-gen/m/sg be-sick-part-nom/nt/sg
'(Evidently) the child is sick.' (from Timberlake (1982))

(25) [AgrP [Agr' -a [TP vaiko$_i$ [T' -m- [VP serga- t_i]]]]]

Still to be addressed is the way the participle morpheme is Case-marked in (25). As a nominal element, the participle affix must receive Case in order to comply with the Case Filter. Given that the verb *sergti* is unaccusative, the most appealing candidate as a source of Case for the participle morpheme in (25) is the Agr head. Let us then suppose that the participial Agr in Lithuanian is a Case-assigner. If this is true, we have to explain why the object NP in (23) cannot be Case-marked in the specifier of the participial Agr, making further movement to the specifier of matrix IP unnecessary. Also, if the participial Agr head were able to Case-mark the participle affix of (23), the main verb would then be free to assign accusative to its object. However, this is not possible, as shown in (26):[12]

(26) *Mano pirk-t-a krištolinį sietyną.
I-gen bought-part-nom/nt/sg chandelier-acc/m/sg
'The chandelier was bought by me.'

Here we have another instance of the configuration in (12). The participial Agr head is able to Case-mark the participle affix of (25), but not the participle affix or the object NP of (23). The crucial difference between these nominal elements is that only the participle affix of (23) is not θ-marked. We may thus say that the participial Agr in Lithuanian also assigns a [+PF,-LF] Case (see Nunes (1994)). Although the participle affix in (26) satisfies the Case Filter by being assigned a [+PF,-LF] Case by the participial Agr head (as does the affix of (25)), it violates the Visibility Condition: it is θ-marked, but does not receive a [+LF] Case.

3.3. Distribution of [+PF,-LF] Case-Assigners in Participle Constructions

The approach pursued in sections 3.1 and 3.2 provides a principled account for the differences among languages like English, Lithuanian and Italian with respect to the existence and distribution of a *have*-like auxiliary in participle constructions. Let us assume that the auxiliaries *be* and *have* are tense bearers inserted in the course of a derivation. Let us further assume that economy considerations, along the lines of the Principle of Full Interpretation, prevent insertion of superfluous features in a derivation. If so, all things being equal, *be* is

[12] On the reasons why (26) cannot have an "active" reading, with the subject raising from the specifier of VP to the specifier of TP and the verb assigning accusative to its object, see Nunes (1994).

preferred over *have*, since it is the least specified auxiliary. A particular grammar will resort to a *have*-like auxiliary only if there is no available PF Case-marker.

A [+PF,-LF] Case-assigning auxiliary is thus blocked in Lithuanian "impersonal passives" and required in English "perfective constructions", because participial Agr is a [+PF,-LF] Case-assigner in Lithuanian, but not in English (by hypothesis), as illustrated in (27) and (28):

(27) a. Vaiko serga-m-a.
child-gen/m/sg be-sick-part-nom/nt/sg
'(Evidently) the child is sick.'
b. $[_{AgrP}\ [_{Agr'}\ \text{-a}_{[+PF,-LF]}\ [_{TP}\ \text{vaiko}_i\ [_{T'}\ \text{-m-}\ [_{VP}\ \text{serga-}\ t_i\ ]]]]]$

(28) a. The child has arrived.
b. $[\text{the child}]_i\ \text{has}_{[+PF,-LF]}\ [_{AgrP}\ \text{Agr}_{[-PF,-LF]}\ [_{TP}\ \text{-en}\ [_{VP}\ \text{arrive-}\ t_i\ ]]]$

Even in languages that do have a [+PF,-LF] Case-assigning auxiliary, this type of auxiliary should be used, according to the economy strategy mentioned above, only as a last resort device. This is what presumably rules out a passive sentence like (29) below in English. In (29), *-en* is assigned a θ-role and therefore it must be visible at LF. It can only be assigned (a [+PF,+LF]) Case by the main verb, because *have* does not have a [+LF] Case to assign. Since in (29) *have* is not playing any role that could not be played by *be*, the least specified auxiliary, it is blocked from appearing, and *be* is inserted, as shown in (30):

(29) a. *The book had bought.
b. *[the book]$_i$ had$_{[+PF,-LF]}$ [$_{AgrP}$ Agr$_{[-PF,-LF]}$ [$_{TP}$ -en$_{\theta e}$ [$_{VP}$ bought t_i]]]

(30) a. The book was bought.
b. [the book]$_i$ was$_{[-PF,-LF]}$ [$_{AgrP}$ Agr$_{[-PF,-LF]}$ [$_{TP}$ -en$_{\theta e}$ [$_{VP}$ bought t_i]]]

Languages like Italian provide an interesting piece of evidence for the present analysis. Italian differs from Lithuanian in having a *have*-like auxiliary, but also differs from English in requiring a *be*-like instead of a *have*-like auxiliary in participle constructions with unaccusative verbs (see Burzio (1986)):

(31) Gianni è/*ha arrivato.
Gianni is/has arrived
'Gianni arrived.'

If the four-way distinction of types of Case proposed in (1) is on the right track, terms like *unaccusative* (with the meaning 'incapable of assigning Case') should also be relativized with respect to the Case Filter and the Visibility Condition. In principle, we could have [-PF,-LF], [+PF,-LF] or [-PF,+LF] "unaccusative" verbs. Disregarding the last option for the present purposes, let us suppose that there is a parameter that classifies "unaccusative" verbs of a language either as [-PF,-LF] or [+PF,-LF] Case-assigners. Let further assume that English chooses the former setting, whereas Italian chooses the latter.

Thus, since the [-PF,-LF] Case-assigner *arrive* in English cannot license the participle affix, a sentence like (28a) above requires the insertion of the [+PF,-LF] Case-assigning auxiliary *have* in order to comply with Case Filter, as represented in

(28b). Since the verb *arrivare* in Italian, on the other hand, is a [+PF,-LF] Case-assigner, it is able to license the participle affix in (31). Economy considerations then block the insertion of the [+PF,-LF] Case-assigning auxiliary *avere* and the least specified auxiliary *essere* (a [-PF,-LF] Case-assigner) is inserted, as shown in (32) (details omitted):

(32) Gianni_i è$_{[-PF,-LF]}$ [$_{IP}$ -to- [$_{VP}$ arriva-$_{[+PF,-LF]}$ t_i]]

This proposal predicts that, since *be* and *essere* are [-PF,-LF] Case-assigning auxiliaries, their perfective forms should be associated with the [+PF,-LF] Case-assigning auxiliaries *have* and *avere*, respectively, since *be* and *essere* would not be able to license their own participle morphemes. Although this prediction is borne out it English, as shown in (33a) and represented in (33b) (details omitted), it is contradicted by Italian, as shown in (34) (from Burzio (1986)):

(33) a. Mary has been accused.
b. Mary_i has$_{[+PF,-LF]}$ [$_{IP}$ -en [$_{VP}$ be-$_{[-PF,-LF]}$ [$_{IP}$ en$_{\theta e}$ [$_{VP}$ accuse- t_i]]]]

(34) Maria è stata accusata.
Maria is been accused
'Maria has been accused.'

However, rather than posing a problem, (34) actually provides an interesting piece of morphological evidence for the analysis pursued in this section. Postma (1993) observes that in languages like Italian, Occitan, Balearic Catalan, Sardinian, Dutch, German and Swiss French, which allow a sequence analogous to *be been*, as exemplified by the Italian sentence in (34), the participial form always involves a suppletive form of the verb. As we can see in (34), for instance, the root *ess-* of the verb corresponding to *be* in Italian is suppleted with the root *sta-* in the participial form. This type of allomorphy is straightforwardly accounted for by the present proposal. Recall that (34) would represent a counterexample for the analysis developed here only if the two instances of the verb *essere* had the same properties in terms of Case-marking. But given Postma's crosslinguistic generalization, we may take the suppletive form of (34) in Italian (and in the other languages) to be a [+PF,-LF] Case-assigning root, as represented in (35):

(35) Maria_i è$_{[-PF,-LF]}$ [$_{IP}$ -to [$_{VP}$ sta-$_{[+PF,-LF]}$ [$_{IP}$ -ta$_{\theta e}$ [$_{VP}$ accusa- t_i]]]]

In (35), the upper participle affix complies with the Case Filter by being assigned a [+PF,-LF] Case by the root *sta-*. Given that insertion of the auxiliary *avere* to bear the finite inflection in (35) would bring with it a superfluous [+PF] Case feature, it is blocked by economy considerations, and the least specified auxiliary root is inserted.

The allomorphy exemplified by the Italian sentence in (34), therefore, provides evidence for the distinction of types of Case proposed in (1), in that it allows us to distinguish [-PF,-LF] from [+PF,-LF] Case-assigning roots. In the next section, we examine constructions in which [-PF,-LF] Case-marked nominal elements are morphologically distinct from their [+PF,-LF] counterparts.

3.4. Frisian Infinitives

Based on the fact that bare infinitives in Romance can only appear in Case-marked positions, Raposo (1986) proposes that the infinitival morpheme in Romance is a [-V,+N] element, which needs to be Case-marked in order to satisfy the Case Filter. Extending Raposo's proposal, Nunes (1992, 1993b) argues that English has a null infinitival morpheme with the features [-V,+N]. This nominal morpheme can satisfy the Case Filter by being assigned Case by a matrix verb or by the preposition *to*, which is taken to be a dummy Case-marker. In a sentence with a perception verb like (36a) below, for instance, the matrix verb assigns its Case to the infinitival TP and the Case percolates down to the infinitival head. The infinitival head can then "share" this Case with the NP in its specifier through spec-head agreement, as represented in (36b), where ø stands for the null infinitival morpheme (see Nunes (1992, 1993b) for detailed discussion):

(36) a. I saw Mary leave.
b. I saw $[_{TP}$ Mary$_i$ $[_{T'}$ ø $[_{VP}$ t$_i$ leave$^{\nu}$]]]

As opposed to perception and causative verbs, modals and dummy *do* can license the infinitival head but not an NP in its specifier, as shown in (37) below. Based on contrasts such as the one between (36b) and (37b), Nunes (1992) claims that modals and dummy *do* are also [+PF,-LF] Case assigners.

(37) a. Mary$_i$ may $[_{TP}$ t$_i$ $[_{T'}$ ø $[_{VP}$ t$_i$ leave]]]
b. *There/it$_{expl}$ may $[_{TP}$ Mary$_i$ $[_{T'}$ ø $[_{VP}$ t leave]]]

Interesting morphological evidence for this view is provided by Frisian infinitives. According to Reuland (1981), Frisian has two infinitival forms, one ending in *schwa /n/*, which is used as complement of a main verb, and the other ending in *schwa*, which is used as complement of an auxiliary verb, as respectively exemplified in (38) below. Given the discussion above, Nunes (1992) suggests that if Frisian infinitives are to be analyzed along the lines proposed for English, *schwa* may be taken to be the morphological realization of a [+PF,-LF] Case and *schwa /n/*, the morphological realization of a [+LF,+PF] Case:

(38) a. dat er [Gurbe rinnen/*rinne] hearde
that he Gurbe walk heard
'that he heard Gurbe walk'
b. dat Gurbe rinne/*rinnen woe
that Gurbe walk wanted
'that Gurbe wanted to walk'

4. Conclusion

Case Theory has distinguished elements which assign or are assigned Case from elements which do not assign or are not assigned Case. In this paper, I have tried to show that this binary distinction ([±Case]) should in fact be relativized in terms of the Case Filter and the Visibility Condition, yielding a four-way distinction of types of Case: [+PF,+LF] Case, [-PF,-LF] Case, [-PF,+LF] Case and [+PF,-LF] Case. I argued that such a relativization is well supported empirically, lending support for the hypothesis that the Case Filter and the Visibility Condition are independent well-formedness conditions in the theory of grammar.

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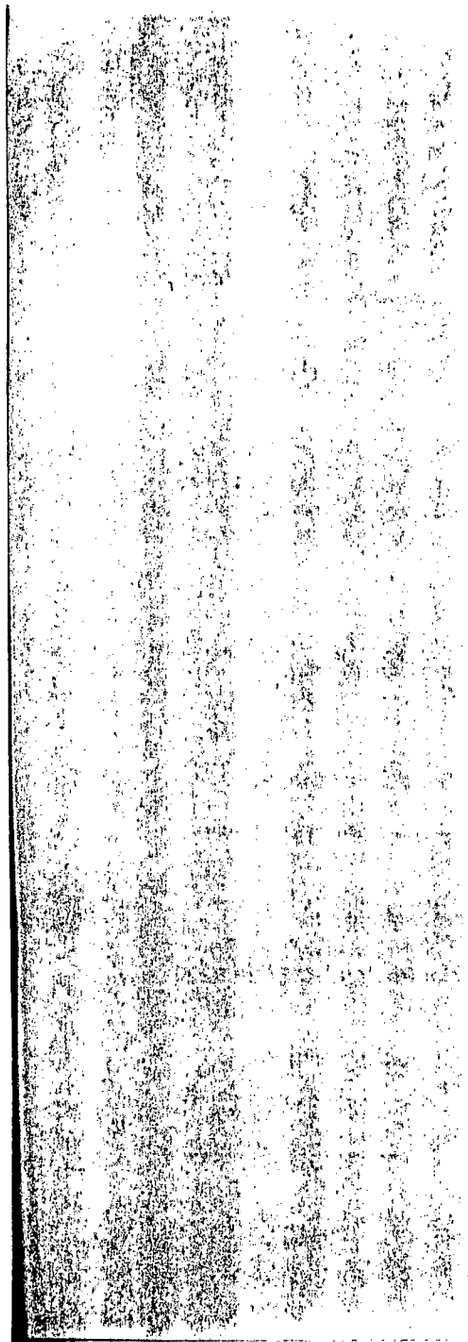

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AINDA O FAMIGERADO *SE*[*]

Jairo NUNES (University of Maryland at College Park)

ABSTRACT: This paper presents a diachronic and synchronic description of the change in progress which deletes anaphoric clitics in Brazilian Portuguese. The main focus is on the factors conditioning deletion, such as the type of the anaphoric clitic and the thematic grid of the verb associated with the clitic.

Key-words: change; portuguese; reflexive; clitic; deletion.

Palavras-chave: mudança; português; clítico; reflexivo; apagamento.

0. Introdução

Como (quase) todo aluno de pós-graduação, sofri as agruras de delimitar o objeto de estudo ao escrever minha dissertação de mestrado sobre a evolução das construções com *se* apassivador e *se* indeterminador no português do Brasil (cf. Nunes (1990)). Ao dá-la por terminada (as pressões de praxe!), tinha em mãos um apêndice tão digno do nome que decidi não incluí-lo na dissertação. Tratava-se de uma descrição sincrônica e diacrônica da perda de clíticos anafóricos no português brasileiro, exemplificada em (1) abaixo (cf. Kliffer (1979), d'Albuquerque (1984), entre outros), tendo por base um *corpus* com 2675 dados compreendendo o período entre 1555 e 1989.

(1) a. Ele (se) chama João.
b. Ontem eu (me) levantei bem tarde.

Excluí tal apêndice da dissertação na esperança de posteriormente poder submetê-lo a uma análise mais teórica. Passaram-se alguns anos, o bonde não veio, o riso não veio, não veio a utopia, nem a pretendida

[*] Gostaria de agradecer a Emilio Pagotto por seus comentários e sugestões em relação a uma versão preliminar deste trabalho, e a Carlos Franchi por sua inestimável ajuda com respeito ao tratamento de grades temáticas. Os erros sobreviventes são de minha inteira responsabilidade.

análise. Neste artigo apresento os resultados obtidos naquela investigação, esperando que esses dados possam auxiliar pesquisadores interessados nessa mudança lingüística, que é tão própria do português brasileiro.

1. Metodologia

1.1. *Corpus*

Para mapear diacronicamente a supressão dos clíticos anafóricos no português brasileiro, estabeleci 4 *corpora*, num total de 2675 dados, seguindo a metodologia de coleta e quantificação de dados empregada em sociolingüística (cf. Labov (1972)). Os *corpora*, cujas fontes são as mesmas utilizadas em Nunes (1990, 1991), foram organizados como descrito abaixo.

O *corpus* diacrônico, compreendendo o período entre 1555 e 1989, foi composto por 2050 dados provenientes de cartas, diários e documentos, em sua maioria obtidos junto ao acervo de Lingüística Histórica da UNICAMP. Na medida do possível, tentei obter material com linguagem próxima ao que se pode conceber como o vernáculo (cf. Labov (1972)) de cada época. Obviamente, os dados relativos aos primeiros períodos de tempo ainda não retratam o que se pode configurar como dialeto brasileiro. O cômputo desses dados não deixa de refletir, no entanto, parte do sistema de que o português brasileiro foi se afastando e, portanto, parte da constituição do dialeto brasileiro. A análise desses dados permite ainda fazer comparações entre o português antigo e o português europeu moderno. Para evitar maiores vieses, só foram computados dados referentes a textos escritos no Brasil.[1]

Um outro *corpus* foi composto a partir de 13 entrevistas (aproximadamente 10 horas de gravação) provenientes do Banco de dados da PUCSP, perfazendo um total de 470 dados. Os informantes (5 cursando ou tendo concluído o 1° grau; 3, o 2° grau; e 5, o 3° grau) eram todos paulistanos ou haviam sido criados na cidade de São Paulo. Esperava-se que neste *corpus* se espelhassem as tendências das mudanças observadas no *corpus* diacrônico. Para que tal expectativa fosse verificada, ambos os *corpora* se submeteram ao mesmo instrumental de análise.[2]

O terceiro *corpus* é constituído por 87 dados provenientes de 24

entrevistas do português europeu.[3] Esse *corpus* será utilizado apenas como contraponto em relação às entrevistas do português brasileiro, ou mesmo em relação a estágios anteriores do português brasileiro/europeu.

Compõem o último *corpus* 68 dados provenientes do conjunto de reportagens da revista *Veja* do período de maio de 1988 a maio de 1989. A constituição deste *corpus* obedeceu a critérios diferentes dos anteriores. Foram computadas somente as ocorrências do que a gramática normativa aponta como erro em construções com clíticos anafóricos (supressão ou inserção). Esse *corpus* permitiu que se investigasse a avaliação sincrônica (cf. Weireich, Labov e Herzog (1968)) das construções que se encontram em processo de mudança.

1.2. O envelope de variação

1.2.1. A variável dependente

Considerou-se como variável dependente a presença/ausência de clítico nas sentenças em que se esperaria um clítico anafórico ou em função das especificações lexicais do verbo ou em função do contexto sintático.[4,5]

a) Ausência de clítico anafórico (representada por *ø*):[6]

"Diz o Cap^{am} Manoel Temudo morador na vila de Sam Paulo q'havera tempo de sinco annos *ø passou* p^{a} os campos do tojocusú e p^{a} asentar sua caza não achou paragem" (petição, 1668).

b) Presença de clítico anafórico:[7]

"O Capitam Manoel Timudo morador em a vila de Sam Paulo fazendo me revelação q'havia tempo de sinco annos *se passara* p^{a} os campos do tojocusú p^{a} asentar sua caza" (carta de data, 1668).

1.2.2. Fatores condicionadores

1.2.2.1. Tipo de clítico anafórico[8]

Em geral, a literatura distingue sete classes de clíticos anafóricos: *se* reflexivo (recíproco ou não), *se* ergativo, *se* inerente, *se* índice de espontaneidade, *se* apassivador, *se* indeterminador e *se* médio. A essas classes gostaria de acrescentar mais duas, *se* ex-ergativo e *se* quase-inerente, como descrito abaixo.[9]

a) *Se* reflexivo: refere-se ao clítico que realiza o papel temático de argumento interno (no sentido de Williams (1981)):

"Depois de jantar *se abraçarão* reciprocamente" (carta, 1725).

b) *Se* ergativo (cf. Burzio (1986)): constitui um operador lexical que detematiza a posição do sujeito de verbos transitivos:

"Meu namorado fala alguma coisa, eu não gosto, eu *me magôo*, eu *me machuco*" (entrevista).

c) *Se* ex-ergativo: designa o resultado de uma provável agentivação de construções com *se* ergativo. Em outras palavras o clítico *se*, marcador da eliminação do argumento externo, foi reinterpretado como marcador da fusão (cf. seção 1.2.2.3 abaixo) entre o argumento externo (o agente) e um argumento interno. Exemplificam essa provável reanálise verbos como *esforçar-se*, *ocupar-se* e *socorrer-se*:

"Como distinguir agora qual o que mais *se esforçou* na sua ingente construção" (carta, 1920);
"Foi necessário não *me ocupar* em nenhuma outra cousa" (carta, 1768);
"Se lembrar *socorrerem se* com alguns Ministros para esta Relação, não esqueça Caetano Bernardo" (carta, 1768);

verbos com argumento interno descontínuo (cf. seção 1.2.2.3 abaixo), como *casar-se*, *separar-se*, *desquitar-se*:

"Sucedeu q'*cazando se* a dita Nosa Mai" (certificado, 1802);
"Quando os pais dele *se separaram*" (entrevista);
"Uma [mulher] que ele *o desquitou*" (entrevista);

e verbos que tomaram verbos estativos como *input*, como *valer-se* e *prestar-se*:

"*Valendoce* o demonio de algus animos inquietos" (carta, 1725);
"Pelo menos *se* não *prestem* a ser instrumento de nossa ruína" (carta, 1823).

d) *Se* inerente: refere-se ao clítico que a gramática tradicional considera "fossilizado" junto a um verbo "essencialmente pronominal". Valendo-me dos dicionários de Fernandes (1979) e Ferreira (1986), arrolei nessa classe verbos cuja entrada lexical não admite contruções outras que não a construção com o clítico anafórico. Embora seja idiossincraticamente definida, essa classe de verbos apresenta certas regularidades que permitem subdividi-la basicamente em três grupos.

O primeiro grupo diz respeito aos verbos cujo radical encerra uma noção de reflexividade:

"Aliás, ele *se* ***suicidou***" (entrevista);
"Quisera ter a fluência de um contador de estórias, como *se* ***autodenominou*** Érico Veríssimo" (carta, 1985).

O segundo grupo envolve verbos ergativos que parecem ter perdido suas contrapartes transitivas:[10]

"Eu acho que ele *se arrependeu* do preço que ele cobrou" (entrevista) [*vs.* *O preço o arrependeu].

Finalmente, o terceiro grupo compreende, a meu ver, verbos do segundo grupo que sofreram um processo de agentivização. São, por assim dizer, "ex-ergativos inerentes". Em escala crescente de agentividade, exemplificam esse grupo os verbos *demasiar-se*, *esbaldar-se*, *dedignar-se/dignar-se/atrever-se* e *queixar-se*:

"Os vencedores *se* costumão *demasiar*" (carta, 1725);
"Quero *me esbaldar* neste carnaval" (carta, 1988);
"O Comitê conta e espera que V. Excia. não *se dedigne* de aceitar essa homenagem" (carta, 1919);
"Requerido ao Senhor Delegado de Polícia *se digne* passar mandado" (processo, 1864);

"Epor esta cauza *me*nao*atrevo* agora reprezentar as muitas faltas que há" (carta, 1725);
"*Queixa-se* o amigo que não lhe escrevo" (carta, 1985).

e) *Se* quase-inerente: refere-se ao clítico de verbos como *portar-se*, *comportar-se* e *conduzir-se*, que, apesar de poderem ser usados transitivamente com outro significado, na acepção de 'agir' resistem ao preenchimento do argumento interno. Isso sugere que agente e tema já se fundiram lexicamente nessa acepção:

"Nossa gente de linha e patriota, *portou-se* valentemente" (telegrama, 1894);
"Parece que *se comportou* lá, ele veio logo" (entrevista);
"Entre várias cartas duas a repeito dos Ministros, uma em que repito o como eles *se conduzem*" (carta, 1768).

f) *Se* enfático: refere-se ao que a gramática tradicional denomina de índice de espontaneidade. Enquanto enfático, o clítico *se* funciona como um operador lexical que geralmente reflete a fusão lexical de dois papéis temáticos (cf. seção 1.2.2.3 abaixo):

"O dito Gomez hera isemto e que *seffosse* em paz" (carta, 1555) [fusão de agente e tema];
"Para que os nossoz possao vadear estez Rioz e *utilizarse* dos fruttoz das suas ribeiras" (processo, 1738) [fusão de agente e beneficiário].

Na quantificação dos dados só foram codificados em relação à variável dependente casos de *se* enfático em que a presença do clítico acarreta um rearranjo sintático (com inserção de preposição) na estrutura do verbo.[11] Não foram computados, portanto, casos como o do verbo *ir-se* (num total de 35 ocorrências), em que não é possível identificar a supressão do clítico. Os casos em que ocorre reestruturação sintática envolvem três grupos: verbos com fusão dos papéis temáticos de agente e beneficiário, como *aproveitar-se*, *utilizar-se*, *lograr-se*, *senhorear-se*:

"Para em tempo algum *nos* nao *aproveitarmos* della" (certificado, 1802);

verbos com fusão dos papéis temáticos de agente e experienciador, como *resolver-se*, *recusar-se*, *determinar-se* e *decidir-se*:

"Nem o inimigo *se rezolveria* aintentar dezembarque" (carta, 1725);

e outros verbos, como *encontrar-se*, *parecer-se*, *vencer-se*, *temer-se*:
"Para o Sinhozinho você *se parece* com um santo" (carta, 1984).

1.2.2.2. Tipo de verbo

Adaptando-se alguns testes propostos na literatura (cf. Cook (1979), Jackendoff (1983), entre outros), os verbos foram classificados como de estado, ação ou processo.

a) Verbos de estado: caracterizam-se, entre outras coisas, pelo fato de não serem usados no presente contínuo ou não estabelecerem contraste entre presente e presente contínuo:

"Respondeu *chamar-se* Marçal Rodrigues" (processo, 1864).

b) Verbos de processo: caracterizam-se, entre outras coisas, pelo fato de estabelecerem contraste entre presente e presente contínuo e poderem completar a sentença "O que aconteceu foi que...":

"A Fátima *curou-se* do resfriado" (carta, 1988).

c) Verbos de ação: caracterizam-se, entre outras coisas, pelo fato de poderem ser usados no imperativo, admitirem advérbios que expressam volição e orações adverbiais finais, e poderem completar a sentença "o que x fez foi ...":

"Esta tomei no meu Livro de notas aonde todos *asinarao se*" (escritura, 1598).

1.2.2.3. Grade temática do verbo

No estabelecimento das grades temáticas dos verbos associados a clíticos anafóricos, vali-me, principalmente, das noções de Cook (1979), que representa grades temáticas com base nos seguintes papéis

temáticos:

a) AGENTE (A): refere-se ao elemento instigador voluntário de uma ação:

"*Ele* se matou lá no bar do meu namorado" (entrevista).

b) EXPERENCIADOR (E): refere-se ao elemento que participa de um evento psicológico, de sensação, emoção ou cognição:

"Deve *V. Ex.ª* persuadir-se do meu agradecimento" (carta, 1768).

c) BENEFICIÁRIO (B): refere-se ao elemento que participa de relações de posse, ganho ou perda:

"*O pioneiro* sempre se beneficia" (entrevista).

d) TEMA (O ou P):[12] refere-se ao papel temático obrigatoriamente subcategorizado pelo verbo, com o qual estabelece várias relações:

"Era [...] como se eu *me* olhasse no espelho" (carta, 1985).

e) LOCATIVO (L ou D): refere-se ao elemento que situa o tema espacialmente:

"E não se continha mais nem menos *em a carta de Sesmaria aqui lansada*" (doação, 1783).

A esses papéis temáticos acrescentei os seguintes:

f) TEMPO (T): refere-se ao elemento que especifica a ocasião em que se dá determinado evento:

"Passam-se *infinitos tempos* e eu não posso ver o estado em que está esta repartição" (carta, 1768).

g) CAUSATIVO (I): refere-se ao elemento que de maneira não intencional desencadeia um processo ou produz um estado:

"Não se preocupe *com o cheque*" (carta, 1986).

h) MODO (M): refere-se à maneira como se dá determinado evento:

"Eu me dou *bem* com a Vera" (entrevista).

No aparato descritivo de Cook ainda há espaço para referência a dois processos lexicais que afetam a grade temática dos verbos:

a) LEXICALIZAÇÃO (*lex*): refere-se à situação em que um papel temático está incorporado ao lexema do verbo:

"Tenho me ***esforç***ado para evoluir no aprendizado do violão" (carta, 1986) [tema lexicalizado].

b) CORREFERENCIALIDADE (a que me referirei como FUSÃO): descreve a situação em que um papel temático se apresenta fundido a outro:[13]

"Nem o inimigo *se rezolveria* aintentar dezembarque" (carta, 1725) [fusão de agente e experienciador].

A esses processos acrescentei os seguintes:

c) PRÉ-FUSÃO: processo que se diferencia da fusão pelo fato de um elemento não anafórico poder receber um dos papéis temáticos em questão:

"E você, que não estava escutando, *se levantou*" (carta, 1983) [pré-fusão de agente e tema].

Um caso interessante de pré-fusão envolve a situação em que o clítico anafórico e o elemento que o liga estão numa relação de parte/todo, e o clítico deve ser parafraseado por sintagmas contendo um pronome possessivo, e não por reflexivos propriamente ditos:

"Em fé do que *me asigno* nesta [escritura]" (escritura, 1792) [*vs.* Em fé do que assino *meu nome* nesta escritura/*Em fé do que assino *a mim mesmo* nesta escritura].

d) DESCONTINUIDADE (*desc*): descreve a situação em que um único papel temático é realizado por elementos que mantêm

entre si uma relação simétrica:

> "*O eu covarde* chocou-se tão fortemente e tão frontalmente *com o eu valente*, que resultou em nada" (carta, 1983) [tema descontínuo];

ou casos em que o aparente papel temático do verbo pode, com efeito, ser selecionado pelo complemento do verbo:

> O médico curou *o João da bronquite* [*vs.* O médico curou *a bronquite do João*].

As grades temáticas de cada verbo serão representadas de acordo com a convenção estabelecida na Gramática de Casos (cf. Cook (1979), por exemplo). Os papéis temáticos serão apresentados entre colchetes, seguidos pelas especificações lexicais, como em (2) abaixo. O sinal de igualdade representará pré-fusão de papéis temáticos quando sozinho, e fusão de papel temáticos quando associado a um asterisco.

(2) a. comer: [AP]
b. andar (fusão de agente e tema): [A*PD]/A=P
c. engarrafar (locativo lexicalizado): [AP*D]/D-lex
d. levantar-se (pré-fusão de agente e tema): [APD]/A=P
e. separar (tema descontínuo): [AP]/P-desc

Usarei ainda um tema duplo ([OO] ou [PP], cf. n. 12) para me referir a verbos que subcategorizam predicativo, como exemplificado em (3):

(3) a. chamar-se: [OO]
b. tornar-se: [PP]

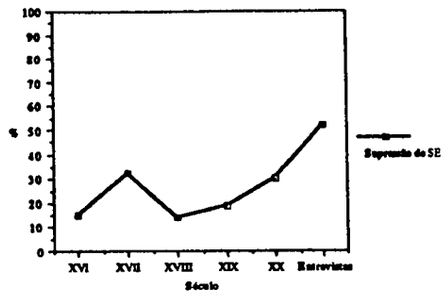
2. Resultados e análise

A Tabela I abaixo, projetada no Quadro I, reflete o aumento progressivo da supressão de clíticos anafóricos no percurso diacrônico, bem como seu reflexo sincrônico na fala:

Tabela I
Supressão de Clíticos Anafóricos:
Quadro Geral

PERÍODO DE TEMPO	TIPO DE *SE*		
	APL	TOT	%
SÉC. XVI	8	52	15
SÉC. XVII	42	131	32
SÉC. XVIII	119	830	14
SÉC. XIX	74	393	19
SÉC. XX	174	588	30
ENTREVISTAS	243	470	52
TOTAL	660	2464	27

Quadro I
Quadro Geral da Supressão de Clíticos Anafóricos

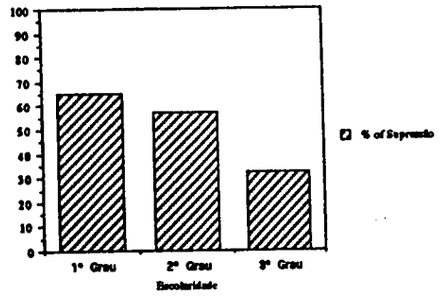


Os 52% de média de supressão de clíticos anafóricos registrados nas entrevistas não se distribuem homogeneamente entre os informantes. Como mostra a Tabela II, representada no Quadro II, a escolaridade se revela como um fator de grande importância no condicionamento da variação existente na modalidade oral:

Tabela II
Supressão de *Se* por Nível de Escolaridade

NÍVEL	APL	TOT	%
1° GRAU	110	168	65
2° GRAU	84	147	57
3° GRAU	49	155	32
TOTAL	243	470	52

Quadro II
Supressão de *Se* por Nível de Escolaridade



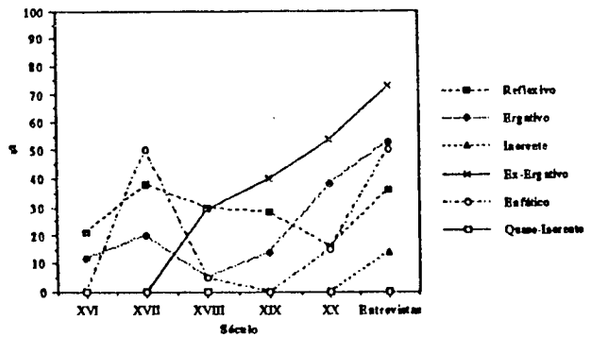
Como se pode verificar no Quadro II, a fronteira de supressão mais significativa se encontra entre os falantes com 2° e 3° graus (25%). O fato de os falantes com 2° grau exibirem uma diferença de apenas 8% de supressão em relação aos falantes com 1° grau (ambos os grupos com uma média superior a 50%) sugere uma emergente neutralização entre os níveis de escolaridade quanto à adoção das estruturas inovadoras.

O Quadro III a seguir, que dimensiona a Tabela III, mapeia diacronicamente o fenômeno da supressão em função do tipo de *se*:

Tabela III
Supressão de Clíticos Anafóricos por Tipo de Clítico

PERÍODO DE TEMPO	Tipo de *se*																				
	Reflexivo			Ergativo			Inerente			Ex-ergativo			Enfático			Quase-inerente			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	5	24	21	3	25	12	0	1	0	0	1	0	0	1	0	-	-	-	8	52	15
SÉC. XVII	33	88	38	8	41	20	-	-	-	-	-	-	1	2	50	-	-	-	42	131	32
SÉC. XVIII	94	318	30	20	441	5	0	25	0	4	14	29	1	22	5	0	11	0	119	830	14
SÉC. XIX	41	148	28	31	223	14	0	10	0	2	5	40	0	4	0	0	4	0	74	395	19
SÉC. XX	32	198	16	133	354	38	0	10	0	7	13	54	2	13	15	-	-	-	174	588	30
Entrevistas	49	256	34	118	222	53	1	7	14	74	102	73	1	2	50	0	1	0	243	470	52
Total	254	932	28	313	1305	24	1	53	2	87	135	64	5	43	12	0	16	0	660	2464	27

Quadro III
Supressão de Clíticos Anafóricos por Tipo de Clítico



Sob uma perspectiva funcionalista, seria esperável que os dados mostrassem maior ocorrência de supressão nos ambientes em que o clítico anafórico não funciona como argumento do verbo. Os resultados da Tabela III contrariam tal expectativa: *se* quase-inerente é retido categoricamente e a única instância de supressão de *se* inerente ocorre em entrevista. Ressalte-se ainda que mesmo essa ocorrência é imediatamente corrigida:

> "Depois a gente vê assim, fala: olha o meu filho, olha o tamanho que ele já tá e *ø arrepende*, *se arrepende*" (entrevista).

Chama ainda a atenção no Quadro III o pico de supressão de *se* enfático, reflexivo e ergativo no século XVII. Enquanto a alta

porcentagem de supressão de *se* enfático no século XVII deve ser certamente creditada ao reduzido número de dados, o mesmo não se pode dizer em relação a *se* reflexivo e ergativo. Tendo em vista que os textos dos séculos XVI, XVII e XVIII não diferem consideravelmente em natureza, o pico de supressão no século XVII se mostra bem enigmático. Embora não disponha de explicação para esse fato inesperado, nas seções que se seguem procurarei identificar possíveis interferências de itens lexicais isolados.

Feitas essas considerações gerais, a análise se concentrará agora na supressão de *se* reflexivo, *se* ergativo e *se* ex-ergativo, que constituem a grande maioria dos dados (95%).

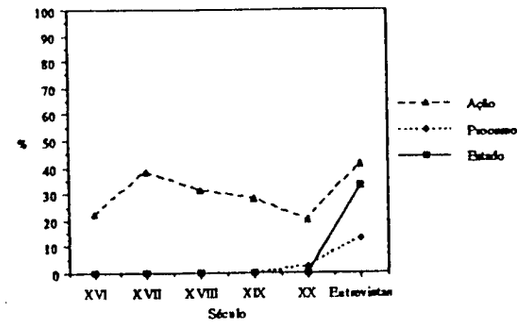
2.1. A supressão de *se* reflexivo

A Tabela IV, representada no Quadro IV, revela uma nítida hierarquia entre os tipos de verbo em relação à supressão de *se* reflexivo:

Tabela IV
Supressão de *Se* Reflexivo por Tipo de Verbo

PERÍODO DE TEMPO	Tipo de Verbo											
	Ação			Processo			Estado			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	5	23	22	0	1	0	-	-	-	5	24	21
SÉC. XVII	33	88	38	-	-	-	-	-	-	33	88	38
SÉC. XVIII	94	307	31	0	11	0	-	-	-	94	318	30
SÉC. XIX	41	147	28	0	1	0	-	-	-	41	148	28
SÉC. XX	31	156	20	1	41	2	0	1	0	32	198	16
Entrevistas	44	107	41	3	23	13	2	6	33	49	136	36
Total	248	828	30	4	77	5	2	7	29	254	911	28

Quadro IV
Supressão de *Se* Reflexivo por Tipo de Verbo



Os verbos de ação favorecem a construção inovadora, ao contrário dos verbos de processo e estado. A alteração da ordenação hierárquica entre verbos de processo e verbos de estado em entrevistas pode ser minimizada, pois as duas ocorrências de supressão envolvem o mesmo item lexical (*conhecer*) e se referem ao mesmo informante:

"Aquela que era mais contra [o casamento] levei lá um dia pra apresentar à Cida; apresentar... ela conhecia já, *o conheciam*" (entrevista);
"Estudaram lá, *o conheceram*, e tal, casaram-se" (entrevista).

Abaixo estão arroladas as grades temáticas encontradas nas construções com *se* reflexivo, agrupadas por tipo de verbo.

a) Grades temáticas dos verbos de ação:

A: [AP]:"Inclusive ele *se matou* lá no bar do meu namorado" (entrevista);
B: [AP*E]/A=E: "Era [...] como se eu *me olhasse* no espelho" (carta, 1985);
C: [APD]: "Era o primeiro aluno: vinha *matricular-se* no Curso de Direito" (carta, 1920);
D: [APD]/A=P: "E você, que não estava escutando, *se levantou*" (carta, 1983);
E: [APP*E]/A=E: "Q'tudo *se deu* por satisfeito o d.o R. P. na compra" (escritura, 1757);

F: [APE]: "Mas eu fico muito *me perguntando* se isso também não reflete uma indisciplina dos professores" (entrevista);
G: [APE]/A=E: "Pela dita vendedora foi dito mais, q'*se obrigava* por sua pessoa e bens avidos e por aver a polo a pás" (escritura, 1801);
H: [APB]: "Nove homens em duas canoetas *se* souberão *defender* desde pela manham athe noite de trinta" (processo, 1738);
J: [APB]/A=B: "V. Ex.a *se sirva* de dar exercício à minha obediência" (carta, 1768);
K: [AP]/P-desc: "Indo ele a tal mesa que era feita na sensala, *reuniu-se* com o dito pai Domingos" (processo, 1864);
L: [AP]/A=P: "Aí ele deu seis meses pra gente *se preparar*" (entrevista);
M: [APP]: "Ficando a incomparável desconsolação de *me* não ter *feito* útil ao nosso Augustíssimo Amo" (carta, 1768);
N: [A*PB]/P-lex: "Dois campos diferentes, mais acabam *se ajudando*" (entrevista);
R: [A*PE]/P-lex: "[Uma personagem] muito confusa, estranha às vezes, que (você tem razão) hipnotiza, joga, mas acabou *hipnotizando-se*" (carta, 1986);
T: [APE]/A=P: "Para satisfazer a tua curiosidade neste ponto, em breves palavras *me explixarei*: este país é ardentíssimo" (carta, 1768);
U: [A*PB]/P-lex, A=B, B-desc: "Não *nos correspondemos*" (carta, 1984).

b) Grades temáticas dos verbos de processo:

B: [PE]: "Desde sexta estou tentando *me entender*" (carta, 1984);
H: [PPE]: "Agora que eu *me sinto* segura com os alunos" (entrevista);
S: [PBD]: "A gente *se encontrou* na mesma festa" (carta, 1985).

c) Grades temáticas dos verbos de estado:

C: [OE]: "A gente *se conhecia* desde essa época" (entrevista);

A Tabela V abaixo evidencia o peso do tipo de grade temática no fenômeno da supressão de *se* reflexivo.

Tabela V
Se Reflexivo: Supressão de Clítico por Grade Temática

	Grade Temática																					
	Verbos de Ação																Verbos de Processo				V. de Estado	
	D	C	T	K	L	F	A	G	M	H	E	J	B	R	U	N	Tot	S	H	B	Tot	C	Tot
Apl	220	3	7	5	4	2	3	5	1	0	0	0	0	0	0	0	248	1	3	0	4	2	2
Tot	486	8	27	25	23	20	14	58	23	46	22	22	10	1	1	1	828	10	54	13	77	7	7
%	45	38	26	20	12	10	9	5	4	0	0	0	0	0	0	0	30	10	6	0	5	29	29

Observando-se as grades temáticas que mais propiciam a supressão do clítico (excluindo os dois casos de supressão de *se* reflexivo junto a verbos de estado citados acima), encontramos os processos lexicais que foram adicionados à lista de Cook (cf. seção 1.2.2.3): a pré-fusão, presente nas grades D, T e L, e a descontinuidade, presente na grade K. Isso parece indicar que, principalmente em relação à grade D, a pré-fusão já está a um passo da fusão dos papéis temáticos. Uma tal fusão pôde ser acompanhada pelo menos em relação ao verbo *assinar-se*, como se verá abaixo.

Como se pode verificar na Figura I a seguir, no conjunto dos dados os verbos de ação constituem maioria absoluta e, como mostra a Figura II, dentre os verbos de ação a grade temática D ([APD]/A=P]) é a mais recorrente.

Figura I
Se Reflexivo:
Distribuição dos Dados por Tipo de Verbo

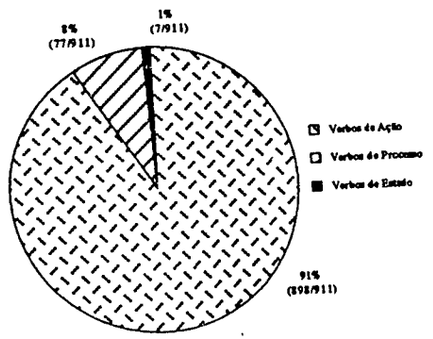
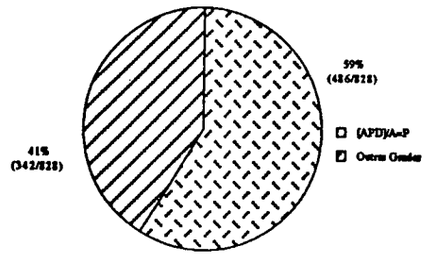


Figura II
Se Reflexivo:
Distribuição dos Dados em Função da Grade Temática
dos Verbos de Ação

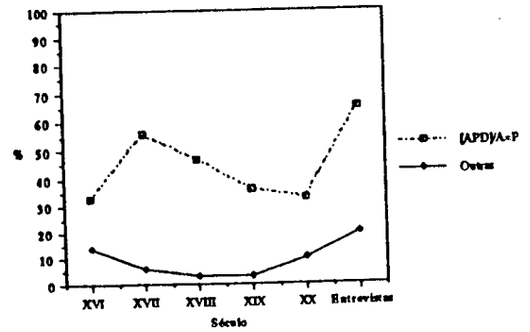


Em função de seu expressivo número de ocorrências no *corpus*, separei a grade D das demais a fim se verificar se ela não estava sendo responsável por alguma alteração nos resultados brutos relativos ao fenômeno da supressão. Como se pode ver na Tabela VI, representada no Quadro V, a supressão de *se* reflexivo praticamente se restringe a essa grade temática:

Tabela VI
Se Reflexivo:
Peso da Grade Temática [APD]/A=P nos Verbos de Ação

PERÍODO DE TEMPO	Grade Temática								
	[APD]/A=P			Outras			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	3	9	33	2	14	14	5	23	22
SÉC. XVII	31	55	56	2	33	6	33	88	38
SÉC. XVIII	91	194	47	3	113	3	94	307	31
SÉC. XIX	40	111	36	1	36	3	41	147	28
SÉC. XX	22	66	33	9	90	10	31	156	20
Entrevistas	33	51	65	11	56	20	44	107	41
Total	220	486	45	28	342	8	248	828	30

Quadro V
Peso da Grade Temática [APD]/A=P nos Verbos de Ação



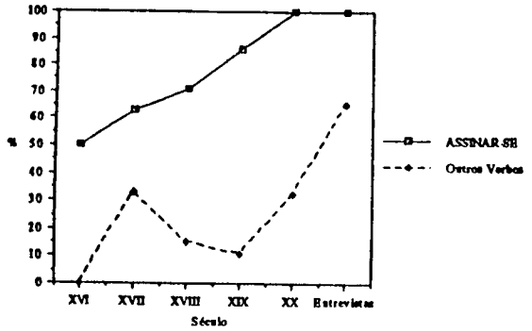
Os resultados acima de certa forma aproximam os verbos da grade temática [APD]/A=P aos verbos da grade [A*PD]/A=P, como *ir*. A se completar a fusão dos papéis temáticos agente e tema, *se* reflexivo poderá vir a ser reinterpretado como enfático.

Centrando a análise na grade temática [APD]/A=P, procurei verificar se havia algum item lexical que também estivesse influenciando o percentual geral. 41% das ocorrências dessa grade involvem o verbo *assinar-se*. Isolando-se esse item lexical, como na Tabela VII abaixo, verifica-se que apesar de ser de tendência geral um crescente favorecimento à supressão do clítico anafórico, fica praticamente registrada a fusão entre agente e tema na grade temática do verbo *assinar*, como visualizado no Quadro VI.

Tabela VII
Interferência do Verbo *Assinar-se* no Conjunto dos Dados

PERÍODO DE TEMPO	Grade Temática [APD]/A=P									Quadro Geral					
	Assinar-se			Outros Verbos			Total			TOT c/ *Assinar-se*			TOT s/ *Assinar-se*		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	3	6	50	0	3	0	3	9	33	8	52	15	5	46	11
SÉC. XVII	27	43	63	4	12	33	31	55	56	42	131	32	15	88	17
SÉC. XVIII	78	110	71	13	84	15	91	194	47	119	830	14	41	720	6
SÉC. XIX	32	37	86	8	74	11	40	111	36	74	393	19	42	356	12
SÉC. XX	1	1	100	21	65	32	22	66	33	174	588	30	173	587	30
Entrevistas	-	-	-	33	51	65	33	51	65	243	471	52	243	471	52
Total	141	197	72	79	289	27	220	486	45	660	2465	26	519	2268	29

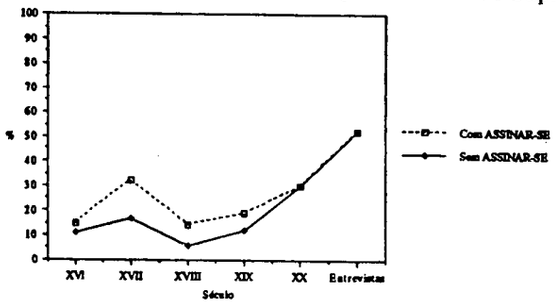
Quadro VI
Interferência do Verbo *Assinar-se* no na Grade Temática [APD]/A=P



A supressão de *se* reflexivo documentada acima acarreta ainda uma reestruturação das propriedades de subcategorização do verbo *assinar-se*: uma vez que agente e tema se fundem e a perda do clítico anafórico se consuma, o verbo abandona o uso do complemento preposicionado, como em *assinar-se no documento*, passando a atribuir Caso acusativo ao seu complemento, como em *assinar o documento* (cf. n. 11).

Retomando a segunda parte da Tabela VII, o Quadro VII abaixo delineia o peso do verbo *assinar* nos resultados do quadro geral da supressão dos clíticos anafóricos (cf. Quadro I) e, principalmente, minimiza o pico de supressão atestado no século XVII.

Quadro VII
Interferência do Verbo *Assinar-se* no Quadro Geral de Supressão



Cabe por fim esclarecer que, embora não enviesem os resultados gerais, alguns verbos da grade [APD]A=P, como, por exemplo, *pôr-se*, comportam-se de modo totalmente contrário ao esperado, apresentando 100% (em 14 ocorrências) de retenção de clítico. Parece haver nesses casos outros fatores que desfavorecem a supressão, entre eles o fato de *pôr-se* funcionar como verbo auxiliar, como exemplificado abaixo. O pequeno número de ocorrências não permitiu, entretanto, um estudo mais acurado desses casos.

"E dito isso *posera-se* novamente a resmungar ou cantar" (processo, 1864).

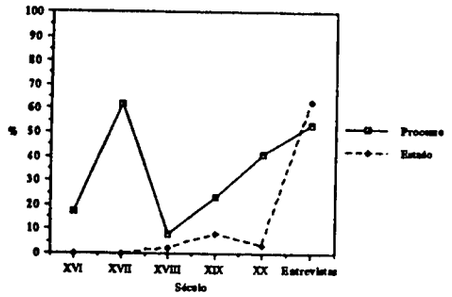
2.2. A supressão de *se* ergativo

A Tabela VIII a seguir, projetada no Quadro VIII, confirma a hierarquia, desta vez mais acentuada, entre verbos de processo e verbos de estado em se tratando de supressão de clítico anafórico. Como da outra vez, a inversão da tendência geral no caso das entrevistas é regida lexicalmente, como se verá adiante.

Tabela VIII
Se Ergativo:
Supressão de Clítico por Tipo de Verbo

PERÍODO DE TEMPO	Tipo de Verbo								
	Processo			Estado			Total		
	APL.	TOT	%	APL.	TOT	%	APL.	TOT	%
SÉC. XVI	3	18	17	0	7	0	3	25	12
SÉC. XVII	8	13	62	0	28	0	8	41	20
SÉC. XVIII	16	202	8	4	239	2	20	441	5
SÉC. XIX	21	91	23	10	131	8	31	222	14
SÉC. XX	132	323	41	1	31	3	133	354	37
Entrevistas	111	211	53	7	11	63	118	222	53
Total	291	858	34	22	447	5	313	1305	24

Quadro VIII
Se Ergativo:
Supressão de Clítico por Tipo de Verbo



Abaixo estão arroladas as grades temáticas encontradas nas construções com *se* ergativo, agrupadas por tipo de verbo.

a) Verbos de processo:

A = [P]: "Espero no entanto que com ajuda de Deus, ella *se restabeleça* bem depressa" (carta, 1932);
B = [PE]: "Deve V. Ex.a *perduadir-se* do meu agradecimento" (carta, 1768);
C = [PD]: "Marçal que sempre é ouvido e cheirado em todos os negocios que *se passa* na Fazenda do Barreiro" (processo, 1864);
D= [PP]: "Este bicho *transformando-se* em sete, seis desceram para o estômago" (processo, 1864);
F = [PT]: "E tambem os juros q'*se venserem*' (escritura, 1695);
I = [PEM]: "De tudo isso *se* me *dará* bem pouco se eu servir a Sua Majestade com aquele acerto que desejo" (carta, 1768);
J = [*PT]/P=T: "*Passam-se* infinitos tempos em eu não posso ver o estado em que está esta repartição" (carta, 1760);
K= [PEI]: "Visto que nao levava Porto destinado, nem comiçao a entregar, como *se justifica* pello seu paçaporte" (carta, 1725);
N = [*PE]/P-lex; E-desc: "*Congratulamo-nos* mais esforçado fundador" (telegrama, 1920);
O = [*PEI]/P-lex: "Não *se preocupe* com o cheque" (carta, 1986);

P = [P]/P-desc: "A Fátima *curou-se* do resfriado" (carta, 1988);
Q = [PDM]: "Já dá pra ter uma idéia de como estou *me saindo* nas salas" (carta, 1985);
R = [PM]/P-desc: "Eu *me dou* com a Vera" (entrevista);
X = [PD]/P-desc: "As idéias não *se cruzam*" (entrevista);
Y= [*PB]/P-lex: "O pioneiro sempre *se beneficia*" (entrevista).

b) Verbos de estado:

A = [OO]: "Respondeu *chamar-se* Marçal Rodrigues" (processo, 1864);
B = [OL]: "E não *se continha* mais nem menos em a carta de Sesmaria aqui lansada" (doação, 1783);
E = [OI]: "Se isto basta para Sua Majestade receber alguma utilidade esta tôda *se deve* a V. Exc.a que até do tronco mais tôsco tem fôrças a sua proteção" (carta, 1768);
G = [O]: "Um soldado, se não *me engano* era britânico" (entrevista).

A Tabela IX a seguir apresenta os resultados da supressão de *se* ergativo em função da grade temática no conjunto dos dados:

Tabela IX
Se Ergativo:
Supressão de Clítico por Grade Temática

Grade Temática	Verbos de Processo																Verbos de Estado				
	J	X	A	B	F	P	C	Q	O	R	D	K	N	Y	I	TOT	E	B	A	G	TOT
APL	15	2	83	110	18	5	30	3	22	1	2	0	0	0	0	291	1	13	8	0	22
TOT	18	3	178	266	45	14	106	11	125	10	46	4	2	2	2	858	9	183	250	5	447
%	83	67	47	41	40	36	28	27	18	10	4	0	0	0	0	34	11	7	3	0	5

Levando-se em conta somente os verbos de processo, a Figura III retrata a distribuição dos dados em função da grade temática e a Tabela X, que se projeta no Quadro IX, mapeia o percurso diacrônico das 4 grades temáticas mais recorrentes no *corpus* em relação à supressão de *se* ergativo:

Figura III
Se Ergativo (Verbos de Processo):
Distribuição dos Dados por Grade Temática

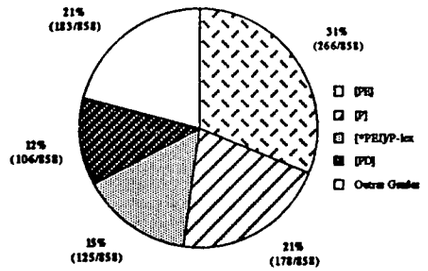
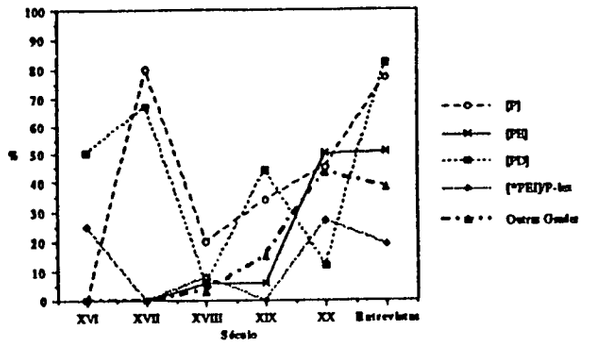


Tabela X
Se Ergativo (Verbos de Processo):
Supressão de Clítico por Grade Temática

PERÍODO DE TEMPO	Grade Temática																	
	[P]			[PE]			[PD]			[*PE]/P-lex			Outras			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	0	3	0	0	4	0	2	4	50	1	4	25	0	3	0	3	18	17
SÉC. XVII	4	5	80	-	-	-	4	6	67	-	-	-	0	2	0	8	13	62
SÉC. XVIII	7	35	20	2	34	6	2	36	6	3	39	8	2	58	3	16	202	8
SÉC. XIX	13	38	34	1	17	6	4	9	44	0	7	0	3	20	15	21	91	23
SÉC. XX	22	49	45	67	133	50	4	34	12	12	44	27	27	63	43	132	323	41
Entrevistas	37	48	77	40	78	51	14	17	82	6	31	19	14	37	38	111	211	53
Total	83	178	47	110	266	41	30	106	28	22	125	18	46	183	25	291	858	34

Quadro IX
Se Ergativo (Verbos de Processo):
Supressão de Clítico por Grade Temática



As oscilações visualizadas acima sugerem que, apesar de a tendência geral a partir do século XIX ser de aumento da supressão de *se* ergativo, as grades temáticas devem estar sofrendo influência de itens lexicais isolados, como se pode verificar nas Tabelas XI e XII abaixo.

Tabela XI
Se Ergativo:
Interferência dos Verbos *Lembrar-se* e *Esquecer-se*
na Grade Temática [PE]

PERÍODO DE TEMPO	Grade Temática [PE]											
	Lembrar-se			*Esquecer-se*			Outros Verbos			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	-	-	-	-	-	-	0	4	0	0	4	0
SÉC. XVII	-	-	-	-	-	-	-	-	-	-	-	-
SÉC. XVIII	1	6	17	0	14	0	1	14	7	2	34	6
SÉC. XIX	-	-	-	0	3	0	1	14	7	1	17	6
SÉC. XX	26	52	50	38	64	59	3	17	18	67	133	50
Entrevistas	5	6	83	29	64	45	6	8	75	40	78	51
Total	32	64	50	67	145	46	11	57	19	110	266	41

Tabela XII
Se Ergativo:
Interferência dos Verbos *Acabar-se*, *Dar-se* e *Passar-se*
em Suas Grades Temáticas

PERÍODO DE TEMPO	Grade Temática [P]												Grade Temática [PD]								
	Acabar-se			*Dar-se*			Outros Verbos			Total			*Passar-se*			Outros Verbos			Total		
	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%
SÉC. XVI	-	-	-	-	-	-	0	3	0	0	3	0	2	3	67	0	1	0	2	4	50
SÉC. XVII	3	4	75	-	-	-	1	1	100	4	5	80	4	4	100	0	2	0	4	6	67
SÉC. XVIII	4	7	57	-	-	-	3	28	11	7	35	20	1	1	100	1	35	3	2	36	6
SÉC. XIX	-	-	-	6	23	26	5	15	33	15	38	34	1	2	50	3	7	43	4	9	44
SÉC. XX	10	13	77	-	-	-	12	36	33	22	49	45	4	10	40	0	24	0	4	34	12
Reinvenções	11	11	100	-	-	-	26	37	70	37	48	77	7	7	100	7	30	70	14	17	82
Total	28	35	80	6	23	26	47	120	39	83	178	47	19	27	70	11	79	14	30	106	28

A Tabela XI demonstra que, com exceção do século XX, os verbos *lembrar-se* e *esquecer-se*, que correspondem a 79% (209/266) da grade temática [PE], não se comportam de maneira idiossincrática, seguindo a tendência geral de sua grade temática. Em relação ao verbo *lembrar-se*, é interessante observar que a supressão do clítico está acarretando uma reestruturação na subcategorização de seu complemento. Parece que a queda do clítico provê evidência para que a construção não seja mais interpretada como ergativa, e sim como uma estrutura transitiva, com o experienciador sendo gerado na posição de argumento externo. A queda do clítico permite ainda que o verbo possa atribuir Caso a seu argumento interno, dispensando a preposição *de* (cf. n. 11):

> "Lembra o caso da catapora, que você queria chamar a atenção?" (carta, 1983).

A Tabela XII revela que, enquanto o verbo *dar-se* (que compreende 13% (23/178) da grade temática [P]) se mantém na média de supressão de sua grade temática no período em que aparece no *corpus*, os verbos *acabar-se* (que corresponde a 20% (35/178) da grade temática [P]) e *passar-se* (que corresponde a 25% (27/106) da grade temática [PD]) são os responsáveis pelas oscilações em suas grades temáticas. É interessante notar que os itens lexicais que admitem supressão já no português antigo, como, por exemplo, *acabar-se* e *passar-se*, são os que em sua maioria formam o restrito conjunto de verbos que admitem esse processo no português europeu falado (cf. seção 2.6 abaixo)

Quanto aos verbos de estado, que são os mais conservadores em relação à supressão de clítico anafórico, seu comportamento se dá de maneira razoavelmente uniforme no processo de mudança, sofrendo pouca interferência do léxico. Como se pode observar na Tabela XIII, os verbos ergativos de estado praticamente se restringem às grades temáticas [OO] (56%) e [OL] (41%).

Tabela XIII
Se Ergativo (Verbos de Estado)
Supressão de Clítico por Grade Temática

PERÍODO DE TEMPO	Grade Temática											
	[OO]			[OL]			Outras			Total		
	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%	AFL	TOT	%
SÉC. XVI	0	5	0	0	2	0	-	-	-	0	7	0
SÉC. XVII	0	14	0	0	14	0	-	-	-	0	20	0
SÉC. XVIII	1	137	1	2	94	2	1	8	13	4	239	2
SÉC. XIX	0	69	0	10	60	17	0	2	0	10	131	8
SÉC. XX	0	15	0	1	13	8	0	3	0	1	31	3
Reinvenções	7	10	70	-	-	-	0	1	0	7	11	63
Total	8	250	3	13	183	7	1	14	7	22	447	5

As grades temáticas [OO] e [OL], por sua vez, também se distribuem por um reduzido número de itens lexicais, como mostram as Figuras IV e V.

Figura IV
Se Ergativo:
Distribuição dos Dados da Grade Temática [OO] por Item Lexical

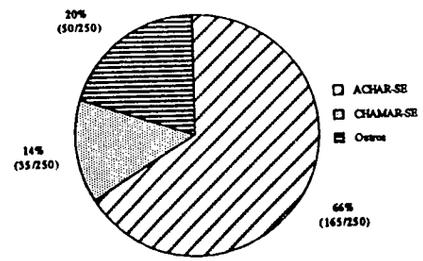
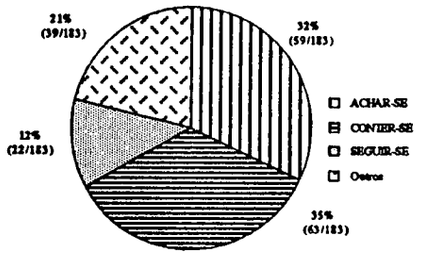


Figura V
Se Ergativo:
Distribuição dos Dados da Grade Temática [OL] por Item Lexical



Mapeando o comportamento dos itens lexicais mencionados nas Figuras IV e V, consegue-se identificar quase todas as ocorrências de supressão de clítico da Tabela XIII, como mostram as Tabelas XIV e XV.

Tabela XIV
Se Ergativo:
Interferência dos Verbos *Achar-se* e *Chamar-se* na Grade Temática [OO]

PERÍODO DE TEMPO	Grade Temática [OO]											
	Achar-se			*Chamar-se*			Outros Verbos			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	0	3	0	0	1	0	0	1	0	0	5	0
SÉC. XVII	0	10	0	0	4	0	-	-	-	0	14	0
SÉC. XVIII	1	106	1	0	1	0	0	30	0	1	137	1
SÉC. XIX	0	43	0	0	16	0	0	10	0	0	69	0
SÉC. XX	0	3	0	0	4	0	0	8	0	0	15	0
Entrevistas	-	-	-	7	9	78	0	1	0	7	10	70
Total	1	165	1	7	35	20	0	50	0	8	250	3

Tabela XV
Se Ergativo:
Interferência dos Verbos *Conter-se*, *Achar-se* e *Seguir-se* na Grade Temática [OL]

PERÍODO DE TEMPO	Grade Temática [OL]														
	Conter-se			*Achar-se*			*Seguir-se*			Outros Verbos			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	-	-	-	0	1	0	-	-	-	0	1	0	0	2	0
SÉC. XVII	0	6	0	-	-	-	0	2	0	0	6	0	0	14	0
SÉC. XVIII	1	53	2	0	24	0	0	3	0	1	14	7	2	94	2
SÉC. XIX	0	3	0	1	33	3	7	13	54	2	11	18	10	60	17
SÉC. XX	0	1	0	0	1	0	1	4	24	0	7	0	1	13	8
Entrevistas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	63	2	1	59	2	8	22	36	3	39	8	13	183	7

O leve aumento de supressão de *se* ergativo nos verbos de estado no século XIX e a abrupta elevação espelhada na entrevista, observados no Quadro XVIII, estão lexicalmente identificados nas Tabelas XIV e XV: o verbo *seguir-se* é responsável pela alteração do século XIX e o verbo *chamar-se*, pelo pico de supressão nas entrevistas.

2.3. A supressão de *se* ex-ergativo

Como se disse acima, essa classe agrupa verbos ergativos que sofreram um processo de agentivização. Portanto, *se* ex-ergativo só aparece associado a verbos de ação. Abaixo estão listadas as grades temáticas encontradas nas construções com *se* ex-ergativo.

Verbos de ação:

B = [AP*E]/A = E: "O P. Bras Lourenço *se ocupará* com elles" (carta, 1555);
I = [AP*B]/A = B: "*Valendoce* o demonio de algus animos inquietos" (carta, 1725);
Y = [A*P]/A=P; P-desc: "O Alê vai *se casar* mesmo" (carta, 1985);
Z = [A*PD]/P-lex: "Tenho *me esforçado* para evoluir no aprendizado do violão" (carta, 1986).

A Tabela XVI abaixo mostra que existe uma nítida fronteira entre a grade temática [A*P]/A=P; P-desc (que constitui 86% (116/135) das

construções com *se* ex-ergativo) e as demais.

Tabela XVI
Se Ex-Ergativo:
Supressão de Clítico por Grade Temática

Grade Temática	APL	TOT	%
Y	86	116	74
I	1	8	13
B	0	6	0
Z	0	5	0
Total	87	135	64

Como as ocorrências do verbo *casar-se* perfazem 91% (106/116) da grade temática [A*P]/A=P; P-desc, afigura-se como mais provável que o que foi descrito como a supressão de *se* ex-ergativo projetada diacronicamente (cf. Quadro III), na verdade, diz respeito à mudança por que passa o verbo *casar-se*, como explicitado na Tabela XVII abaixo.

Tabela XVII
Se Ex-Ergativo:
Interferência do Verbo *Casar-se* no Conjunto dos Dados

PERÍODO DE TEMPO	*Se* Ex-Ergativo								
	Casar-se			Outros Verbos			Total		
	APL	TOT	%	APL	TOT	%	APL	TOT	%
SÉC. XVI	-	-	-	0	1	0	0	1	0
SÉC. XVII	-	-	-	-	-	-	-	-	-
SÉC. XVIII	3	3	100	1	11	9	4	14	29
SÉC. XIX	2	3	67	0	2	0	2	5	40
SÉC. XX	7	7	100	0	6	0	7	13	54
Entrevistas	69	93	74	5	9	56	74	102	73
Total	81	106	74	6	29	21	87	135	64

2.4. A inserção de clíticos anafóricos

Encontram-se no *corpus* 13 construções em que, de modo avesso ao fenômeno estudado neste trabalho, ocorre inserção de clítico anafórico em contextos em que o clítico não era previsto. Esse tipo de hipercorreção não foi computado em função da variável dependente, sendo listado à parte. Compreende basicamente três casos:

a) Inserção de *se* junto a verbos que não são especificados como eventualmente pronominais (cf. Fernandes (1979), Ferreira (1986), por exemplo):

"Indo os frades a tomar poce *se resistirao* os rebedes" (carta, 1725);
"O comércio *continua-se* com mais fervor" (carta, 1768);
"Caseca *piorava-se*" (processo, 1864);
"Ou fosse pelo sangue preto que lançava ou por outro motivo, os dentes também *pretejaram-se*, os olhos *roxiaram-se*" (processo, 1864);
"As férias nem bem *começaram-se*" (carta, 1983);
"Eu pensei que eu fosse *me degringolar*, sabe, ficar assim perdida" (carta, 1987).

b) Inserção de *se* juntos a verbos com um objeto (nulo no terceiro exemplo) não anafórico:

"*Temendoce* os moradores desta cidade o hirem aquelle Rio ao dito negocio do cacau" (processo, 1725);
"Pence sempre nesta corrente de pençamento positivo, que você *se realize* os desejos" (carta, 1983);
"Ela [Regina Duarte] tá fazendo uma típica mulher do nordeste mesmo, né, ela *se interpreta* muito bem" (entrevista).

c) Inserção de *se* junto a verbos pertencentes à mesma grade temática que o verbo *encontrar-se*, que, ao contrário desse verbo, não são considerados como eventualmente pronominais pela gramática normativa:[14]

"O eu covarde *chocou-se* tão fortemente e tão frontalmente com o eu valente, que resultou em nada" (carta, 1988);
"Só não sei o que será de mim amanhã, quando acordar e *deparar-me* com esse dura realidade" (carta, 1983).

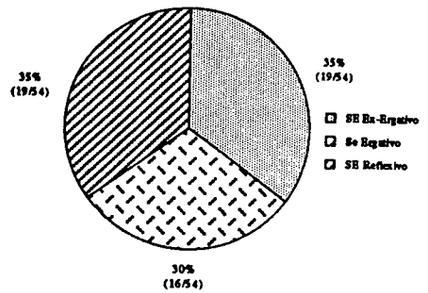
Como se verá na próxima seção, esse tipo de "hipercorreção" também aparece na modalidade escrita de estilo formal do português brasileiro sincrônico, o que sugere um processo de relexicalização de alguns verbos em função da hipercorreção.

2.5. De olho (?) em erros e acertos gramaticais

Para verificar qual é a avaliação sincrônica que se faz do fenômeno da supressão de clíticos anafóricos, estabeleci um pequeno *corpus* composto por 68 dados provenientes da revista *Veja*. Tais dados constituem o que a gramática normativa considera como erro em se tratando de clíticos anafóricos. Esperava-se que os "erros" encontrados em *Veja* envolvessem formas inovadoras mais consolidadas diacronicamente, que já estariam invadindo os domínios do português padrão escrito.

A Figura VI a seguir retrata a distribuição da supressão por tipo de clítico.

Figura VI
Supressão de Clítico Anafórico em *Veja*:
Distribuição por tipo de Clítico



Em consonância com os resultados discutidos na seção 2.1, todos os casos de supressão de *se* reflexivo envolvem a grade temática [APD]/A=P, como exemplificado abaixo:

"[Ele] *sentara o* na cadeira de presidente".

Também em consonância com os resultados da seção 2.3, todas as ocorrências de supressão de *se* ex-ergativo envolvem a grade temática [A*P]/A=P; P-desc (e o verbo *casar-se*):

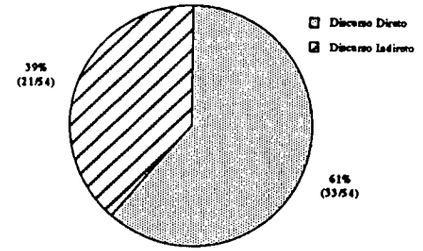
"A empregada que consegue *o casar* com o patrão".

No caso de *se* ergativo, a supressão abrangeu mais de uma grade temática, mas se restringiu a três das grades temáticas que mais favorecem a elisão de *se* ergativo ([PE], com 10 ocorrências; [PD], com 6; e [P], com 3), conforme respectivamente exemplificado abaixo:

"Um super reformista leva tempo para *o esquecer* de hábitos tão arraigados";
"O Bateau Mouche *o afundou*";
"Todas as relações se tornam ossificadas antes que cheguem a *o* osssificar.

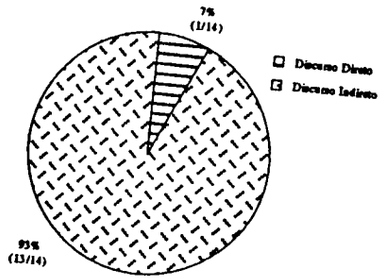
Deve-se observar que, apesar de admitir esse significativo número de 54 ocorrências de supressão de clítico anafórico, *Veja* ainda estabelece uma fronteira bem definida entre discurso indireto (o fluxo do texto propriamente dito) e discurso direto (citações de fala ou a transcrição da seção de entrevistas). Conforme demonstra a Figura VII abaixo, o discurso direto é bem mais permeável às formas inovadoras.

Figura VII
Supressão de Clítico Anafórico em *Veja*:
Distribuição por Tipo de Discurso



A relação entre discurso direto e indireto assume valores diametralmente opostos quando se examina o fenômeno da hipercorreção (a inserção de clítico anafórico em contextos em que é rechaçada pela gramática normativa). Como explicita a Figura VIII abaixo, a esmagadora maioria de ocorrências se encontra em discurso indireto.

Figura VIII
Inserção de Clítico Anafórico em *Veja*:
Distribuição por Tipo de Discurso



A hipercorreção retratada na figura VIII diz respeito à inserção de *se* junto ao verbo *sobressair* (2 ocorrências) e junto a verbos da classe de *encontrar* (cf. n. 14), como *deparar* e *defrontar* (12 ocorrências):

"Bergonzi, se nunca *se sobressai* com voz estentórica...";
"Os pesquisadores-empresários costumam *se deparar* com sérias dificuldades".

Comparando-se as Figuras VII e VIII, pode-se afirmar que, se por um lado *Veja* admite desvios da norma padrão no discurso alheio, por outro chama para si a tarefa de eliminar de seu próprio discurso o mal da supressão dos clíticos. O fervor normativo, entretanto, produz certas incoerências. Como mencionado acima, verbos como *deparar* em *Veja* são bem suscetíveis à inserção de um *se* espúrio. A norma por que *Veja* se pauta, entretanto, condena essa inserção, conforme se pode verificar pela interessante pendenga gramatical a respeito do verbo *deparar*, gerada pelo quadro "De olho em erros e acertos gramaticais" da seção Cartas em maio de 1989:

"Os leitores de VEJA prestam grande ajuda à revista quando sugerem temas para reportagens, analisam artigos, criticam ou apontam erros. Cerca de 54% das cartas dos leitores trazem alguma contribuição desse tipo. É o caso de Ronaldo Carneiro Franco, de São Paulo, e Eugênio de Alvarenga Moreira, de Belo Horizonte, que apontaram um equívoco primário: a grafia excessão em vez de exceção. É nesse

sentido que escreveu também o leitor Custódio Valverdes, de São Paulo, que apontou um providenciários no lugar de previdenciários e um haviam onde só caberia havia. Mas os leitores, como todo o mundo, às vezes se equivocam também, como ocorreu com o próprio Carneiro Franco, que em sua carta escreve 'deparei-me com um grave erro', sem se dar conta da escorregadela cometida no uso do verbo deparar. O leitor certamente deparou com o erro. Mas, ao apontá-lo em sua carta cometeu outro - de regência verbal." (*Veja*, 10/5/89)

Duas semanas depois, ainda na seção Cartas, a vez dos leitores, em tréplica:

"No quadro 'De olho em erros e acertos gramaticais' da seção Cartas (10 de maio) reparamos que vocês consultaram apenas o Dicionário de Verbos e Regimes, de Francisco Fernandes, em que não consta a forma utilizada pelo leitor, que pode ser encontrada no Dicionário Prático de Regência Verbal, de Celso Pedro Luft." (*Veja*, 31/5/89)

2.6. A supressão de clíticos anafóricos em português europeu

Como contraponto às entrevistas do português brasileiro, examinei 87 dados provenientes do português europeu. Para estabelecer uma comparação, ambos os *corpora* se submeteram ao mesmo instrumental de análise.

O português europeu apresentou-se, como seria de esperar, bem menos afeito à supressão de clíticos anafóricos. De certo modo, o dialeto europeu parece espelhar estágios anteriores do português brasileiro. Os dados se distribuem da seguinte forma: 50 construções com *se* ergativo e 37 com *se* reflexivo.

Nas construções com *se* ergativo, houve 22% (11 ocorrências) de elisão de clítico (relembre-se que as entrevistas do português brasileiro registram 53% (cf. Tabela III). Com exceção de um inesperado apagamento na grade temática [*PB]/P-lex:

"E quem *o beneficia* dessa mentalização?",

todas as demais ocorrências envolvem grades temáticas que favorecem a

supressão do clítico, como exemplificado abaixo:

"Deixei *passar o* mais tempo" ([*PT]/P=T);
"Depois vêm [os dois] do futebol às dez e meia ou onze horas, lá quando *o acaba*" ([P]);
"Mas o poder paternal não pode *o passar* para a mãe" ([PD]);
"O dia vinte e seis, logo o dia a *o seguir* ao natal" ([PT]).

Por fim, houve 4 ocorrências de supressão de *se* reflexivo (11% contra 36% em entrevistas do português brasileiro; cf. Tabela III), 3 das quais envolvendo a grade temática [APD]A=P, que, como visto na seção 2.1, é a que mais favorece a supressão de *se* reflexivo em português brasileiro:

"[O filho] da confeiteira *passa o* à explicação e o pai está à espera do menino" ([APD]/A=P).

3. Considerações finais

Os resultados acima nos permitem delinear diacronicamente a supressão de clíticos anafóricos no português brasileiro. Os dados demonstram que essa mudança em curso é sensível ao tipo de clítico anafórico, ao tipo de verbo a que o clítico está associado e à grade temática de tal verbo. Quanto a fatores extralingüísticos, a elisão de *se* se mostra condicionada em entrevistas por nível de escolaridade, e na escrita contemporânea formal por tipo de discurso. Como dito acima, não tive por objetivo neste trabalho prover uma análise teórica para esses resultados. Espero, contudo, que pesquisadores interessados possam se beneficiar com a descrição aqui feita e empreender um estudo mais exaustivo dessa questão. Como escreveu Charlotte Galves certa vez, "o *se* ainda fará correr muita tinta"...

(Recebido em 29/04/94 / Aceito em 20/10/94)

NOTAS

1 Abaixo estão arrolados os textos que serviram como fonte de dados para este estudo:
1555: LEITE, S. (s/d) *Cartas dos Primeiros Jesuitas do Brasil*, vol. II. São Paulo: Comissão do IV Centenário da Cidade de São Paulo.

1571-1877: JONHSON, D. M. (transcr.) (1977) *Livro do Tombo do Mosteiro de São Bento da Cidade de São Paulo*. São Paulo: O Mosteiro [documentos].
1617: *Livro Primeiro do Govêrno do Brasil*. Ministério das Relações Exteriores, Seção de Publicações do Serviço de Documentação [documentos].
1725-1726: SHUMANN, F. (dir.) (1915) *Governadores do Rio de Janeiro. Correpondência Activa e Passiva com a Côrte*. Rio: Officinas Graphicas do Archivo Nacional.
1738-1739: *Autos da Devassa contra os Índios Mura do Rio Madeira e Nações do Rio Tocantins* (1984). Universidade do Amazonas, Manaus.
1768-1769: LAVRADIO, M. do (1972) *Cartas da Bahia*. Rio: Arquivo Nacional.
1863: *Processo contra Escravos*. Uberaba: Arquivo Público Municipal.
1894: VARGA, J. (1973) *A Última Viagem do Barão do Serro Azul*. Curitiba: O Formigueiro [cartas e diários].
1894: CARNEIRO, D. (s/d) *O Paraná e a Revolução Federalista* [cartas e diários].
1919-1920: LIMA, E. (1982) *Victor Ferreira do Amaral (o Reitor de Sempre)*. Curitiba: Editora da UFPR [cartas].
1838-1989: cartas avulsas.

2 Nas tabelas e quadros, os resultados referentes às entrevistas serão apresentados após os resultados do *corpus* diacrônico.

3 Essas entrevistas foram obtidas junto a NASCIMENTO *et alii* (1987) *Português Fundamental, Volume Segundo: Métodos e Documentos; Tomo Primeiro: Inquérito de Frequência*, Instituto Nacional de Investigação Científica da Universidade de Lisboa, Lisboa.

4 Não foram computados em relação à variável dependente casos em que o clítico está numa oração complemento de verbo de atribuição excepcional de caso, ou casos em que o clítico não é argumento do verbo, como respectivamente ilustrado abaixo. Casos como esses, num total de 8, foram listados à parte:
"Por meio de gestos e sinais *fazerem-se* [Pedro e Domingos] acreditar sobre natural" (processo, 1864);
"Não *me* vejo *valor*, assim como não consigo ver valor em um monte de coisas que proliferam por aí" (carta, 1985).

5 Sobre o desaparecimento dos clíticos pronominais acusativos de terceira pessoa no português brasileiro numa perspectiva diacrônica, cf. Tarallo (1983), Cyrino (1993), Galves (1993), Kato (1993), Nunes (1993) e referências citadas nesses trabalhos.

6 Este trabalho não levou em consideração a ordem entre clítico e verbo. A posição do símbolo o em relação ao verbo, portanto, não deve ser tomada necessariamente como indicação de que essa seria a posição a ser ocupada pelo clítico caso estivesse presente. Sobre a mudança da posição dos clíticos em geral no português brasileiro, cf. Pagotto (1993a, 1993b).

7 Na exemplificação dada verifica-se que houve uma correção do documento anterior. Fenômeno semelhante também foi observado numa carta da primeira

metade deste século em que o autor acrescenta um *se* manuscrito ao texto datilografado.

8 A forma *se* será empregada para representar todos os clíticos anafóricos, independentemente de número ou pessoa.

9 Não tratarei neste trabalho de *se* apassivador, *se* indeterminador e *se* médio. Sobre a evolução de construções com esses clíticos no português brasileiro, cf. Nunes (1990, 1991).

10 Evidência indireta para essa hipótese é fornecida por verbos como *indignar-se*, *dignar-se* e *lastimar-se*, como ilustrado em (i)-(iii) abaixo.

(i) a. Eu me indignei com aquilo.
b. Aquilo me indignou.

(ii) a. Eu me dignei a fazer aquilo.
b. *Fazer aquilo me dignou.

(iii) a. Ele se lastimou pela derrota.
b. *A derrota o lastimou.
c. "Não te lastimam as lágrimas dos miseráveis?" (Vieira, Sermões, *apud* Fernandes (1979))

(i) e (ii) revelam a idiossincrasia da possível perda da construção transitiva: enquanto o verbo *indignar-se* tem uma contraparte transitiva legítima, o mesmo não ocorre com *dignar-se* (ou *dedignar-se*). Por sua vez, (iii) mostra que *lastimar* no português brasileiro moderno parece ter perdido a acepção causativa exemplificada em (iiic).

11 Em Nunes (1994), proponho que a Teoria dos Casos seja relativizada em relação à Forma Lógica (FL) e à Forma Fonética, (FF) derivando quatro tipos de Casos: [+FF,+FL], [-FF,-FL], [+FF,-FL] e [-FF,+FL]. Nessa perspectiva, clíticos anafóricos são portadores de Caso [+FF] mesmo quando não recebem papel temático. Isso explica por que um verbo associado a um clítico anafórico requer inserção de preposição para poder licenciar um argumento interno, como exemplificado em (i) abaixo. Explica-se também por que a perda do clítico pode desencadear a perda da preposição, como ilustrado em (ii):

(i) a. João (se) encontrou com o Pedro.
b. João se encontrou *(com) o Pedro.

(ii) a. Você se lembra *(d)o caso da catapora?
b. "Lembra o caso da catapora, que você queria chamar a atenção?" (carta, 1983)

12 Para efeito de clareza, representarei o tema de verbos estativos por O, e o de verbos de processo e ação por P. Da mesma forma, usarei L para o locativo de verbos de estado e D para o locativo de verbos de processo e ação.

13 Essa descrição não quer dizer que haja nesses casos violação do Critério Temático (cf. Chomsky (1981)). Uma vez "fundidos" no léxico, os dois papéis temáticos se comportam como um único desde a estrutura-D (cf. Chomsky (1981:139, n. 14) e Jackendoff (1990) para uma visão mais recente).

14 Talvez a renitência da gramática normativa se explique pelo fato de que, ao contrário de *chocar* e *deparar*, o verbo *encontrar* pode adquirir traços de volição quando associado a *se* enfático, como exemplificado em (i):

(i) a. Ontem eu me encontrei com o João.
b. *Ontem eu me encontrei com uma pedra.
c. Ontem eu encontrei o João/uma pedra.

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METÁFORA, COGNIÇÃO E ENSINO DE LEITURA*

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ABSTRACT: The intense inderdisciplinary research on metaphor which has been carried out during the last twenty years, has yielded an entirely new approach to this rhetoric figure: it is no longer considered to be a simple linguistic figure. Instead, it turned out to be considered a fundamental ***cognitive*** *operation. "In other words, metaphor does not primarily refer to a figure of speech, but rather to a fundamental form of man's knowing." (Haskell, 1987:XII). Though this kind of research has produced some interesting insights, "the nature of metaphor, and how and why it pervades all aspects of cognition remains enigmatic." (Indurkgya, 1991:1). One of the ways of exploring the cognitive aspects of the metaphor is trying to find out the mental processes involved in the comprehension of new metaphors. With this objective in mind, I have carried out an empirical qualitative investigation on the process of comprehending new metaphors in poetic texts. The analysis of the data has shown among other facts, a close link between the process of comprehending metaphors and the process of explaining riddles.*

Key-words: metaphor; cognition; reading; comprehension; similarity.

Palavras-chave: Metáfora; cognição; leitura; compreensão; similaridade

Nos últimos vinte anos a metáfora tem sido objeto de intensa pesquisa interdisciplinar. Esse fenômeno[1], que Dascal (1992a) denominou *"expansão da metaforicidade"*, produziu uma visão totalmente nova da metáfora, levando a uma análise crítica de várias assunções tradicionais a respeito dela e da linguagem figurada em geral.

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CONCORDÂNCIA DE PARTICÍPIO EM LITUANO

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1 – INTRODUÇÃO*

As formas verbais de particípio presente e particípio passado em lituano apresentam um complexo padrão de concordância, como esquematizado em (1):[1]

(1) a. Passivas afirmativas de verbos transitivos:
a'.Se o agente da passiva estiver presente, o particípio concorda obrigatoriamente com o argumento interno em gênero, número e Caso[2]
a".Se o agente da passiva estiver ausente, o particípio pode concordar com o argumento interno ou pode se superficializar com os traços [nom, nt, sg][3]
b. Passivas negativas de verbos transitivos: o particípio pode concordar com o argumento interno ou pode se superficializar com os traços [nom, nt, sg], independentemente da presença do agente da passiva
c. "Passivas impessoais" de verbos intransitivos, inacusativos e de alçamento: o particípio invariavelmente se superficializa com os traços [nom, nt, sg]

* Este texto é uma versão resumida de minha dissertação de mestrado defendida junto à Universidade de Maryland (cf. Nunes (1994a)). Gostaria de expressar minha gratidão a Norbert Hornstein, Ellen Thompson e Juan Uriagereka pelos inestimáveis comentários e sugestões durante as várias fases por que passou este trabalho. Desnecessário dizer que nenhum deles é responsável pelas falhas ainda existentes. Gostaria também de agradecer Raimune Dainora por seus juízos de gramaticalidade sobre sentenças do lituano.

[1] Para uma descrição das formas verbais de particípio presente e particípio passado em lituano, cf. Dambriūnas, Klimas e Schmalstieg (1966).

[2] O termo *agente da passiva* será aqui utilizado no sentido empregado pela gramática tradicional. Refiro-me, assim, ao sintagma que em construções passivas recebe o papel temático reservado ao argumento externo (cf. Williams (1981)) de construções ativas. Cf. seção 3.1 abaixo para detalhes sobre como se dá essa atribuição de papel temático.

[3] Lista de abreviaturas a serem usadas neste trabalho: *ac:* acusativo; *gen:* genitivo; *m:* masculino; *nom:* nominativo; *nt:* neutro; *part:* particípio; *pl:* plural; *sg:* singular.

d. "Passivas impessoais de passivas padrão": o verbo principal concorda com o argumento interno e o verbo auxiliar se superficializa com os traços [nom, nt, sg]

O objetivo deste trabalho é prover uma análise que dê conta desse padrão de concordância, seguindo as linhas gerais do Programa Minimalista de Chomsky (1992). Minha proposta é a de que a obrigatoriedade de concordância mencionada em (1a') e (1d) se deve ao Princípio do Movimento Mínimo ("Shortest Movement", cf. Chomsky (1992:24)). Ao se mover sobre o agente da passiva no spec de TP participial a fim de receber Caso, o argumento interno tem de passar pela projeção de Agr que domina TP participial para satisfazer o Princípio do Movimento Mínimo. O vestígio do argumento interno entra, então, numa relação de concordância com o núcleo de AgrP, do que resulta a concordância obrigatória da forma verbal de particípio com o argumento interno.

A opcionalidade de concordância descrita em (1b), por sua vez, se explica pela existência de uma projeção intervindo entre AgrP e TP (NegP). Na presença de agente da passiva em spec de TP, o Princípio do Movimento Mínimo requer que o argumento interno passe pelo spec de NegP. A partir dessa posição, entretanto, o NP objeto está livre para passar ou não pelo spec de AgrP, pois não há nenhum spec preenchido intervindo entre o spec de NegP e o próximo spec. A ausência de spec preenchido entre a posição de objeto e a posição de sujeito da oração matriz em construções como (1a") também torna facultativa a passagem do NP objeto pelo spec de AgrP participial. Finalmente, a ausência de concordância descrita em (1c) e (1d) se explica pela ausência de movimento para spec de AgrP participial: os elementos movidos podem receber Caso e checar seus traços no spec de TP participial.

O texto está organizado da seguinte forma: na seção 2, caracterizarei as propriedades temáticas e de Caso dos morfemas de particípio passado e presente em lituano; na seção 3, discutirei o padrão de concordância de construções passivas com verbos transitivos, e na seção 4, o padrão das chamadas "passivas impessoais"; na seção 5, tratarei de questões aparentemente problemáticas para a análise desenvolvida nas seções 3 e 4; e, finalmente, na seção 6, apresentarei algumas conclusões.

2 – PROPRIEDADES DO MORFEMA DE PARTICÍPIO

Baker, Johnson and Roberts (1989) propõem que o morfema de particípio em lituano não é um núcleo de Infl, mas um núcleo nominal que se cliticiza a Infl. Nunes (1994a) mostra, no entanto, que essa análise não resiste a um exame minucioso. A distribuição complementar entre morfemas

temporais e os morfemas de particípio em lituano, por exemplo, sugere que esses últimos também sejam núcleos de Infl.[4]

Como alternativa, Nunes (1994a) adota a estrutura oracional advogada por Belletti (1990) e propõe que os morfemas de particípio em lituano estão associados ao núcleo de uma projeção de TP, que por sua vez é dominada por uma projeção de concordância (AgrP).[5] Em consonância com Baker, Johnson e Roberts e com a análise de Nunes (1993) para as construções de particípio em inglês, Nunes (1994a) analisa o morfema de particípio em lituano como um elemento portador dos traços [-V,+N] e, como tal, um possível portador de papel temático.

A proposta de que o morfema de particípio tem natureza nominal é corroborada pela forma genitiva de certos pronomes quando associados ao afixo de particípio. De acordo com Timberlake (1982:522, n. 2), os pronomes de 1ª e 2ª pessoas do singular e pronomes reflexivos têm duas formas genitivas: uma para expressar posse e outra usada como complemento de verbos e preposições. *Mano*, for exemplo, é a forma genitiva possessiva do pronome de 1ª pessoa, enquanto *manęs* é a forma genitiva verbal ou preposicional. Como se pode verficar em (2) abaixo, é a forma possessiva que é empregada para agentes da passiva. Isso é exatamente o que se deve esperar se o genitivo possessivo é atribuído por nomes e se o afixo de particípio é um elemento [-V,+N].[6]

(2) Krištolinis sietynas buvo mano pirk-t-as
candelabro-nom/m/sg foi eu-gen comprar-part-nom/m/sg
'O candelabro foi comprado por mim'
(Timberlake (1982))

Finalmente, baseado na relação entre formas verbais de particípio e genitivo possessivo, Nunes (1994a) propõe que o núcleo de TP participial atribui Caso genitivo ao seu especificador.

[4] Cf. Nunes (1994a) para uma discussão detalhada da proposta de Baker, Johnson e Roberts (1989) para as passivas do lituano.

[5] Estou assumindo aqui a proposta de Chomsky (1992:39), segundo a qual itens lexicais já se encontram flexionados quando são inseridos num marcador frasal. Descrições como "o morfema x é o núcleo de XP" ou "o morfema x recebe papel um papel temático" no decorrer deste trabalho devem, portanto, ser entendidas como abreviação de "o núcleo associado com o morfema x encabeça XP" ou "o núcleo associado ao morfema x recebe um papel temático". Para efeito de clareza, colocarei uma cópia dos morfemas flexionais das formas de particípio sob o nódulo a que estão associados.

[6] Para facilitar a identificação dos morfemas relevantes, usarei hifens nas formas de particípio.

3 – PASSIVAS DE VERBOS TRANSITIVOS

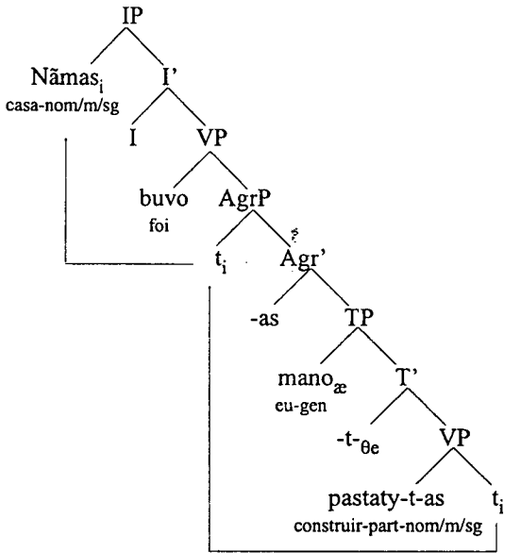
De acordo com o que foi proposto na seção 2, uma sentença passiva como (3) pode ser representada como em (4) (omitindo-se detalhes irrelevantes):

(3)

Nãmas	buvo	mano	pastaty-t-as
casa-nom/m/sg	foi	eu-gen	construir-part-nom/m/sg

'A casa foi construída por mim'

(4)



3.1 – Propriedades Temáticas

Em (4) não há nenhum NP disponível no especificador de VP para receber do verbo *pastatyti* ('comprar') o papel temático reservado ao argumento externo, e se esse papel temático não for atribuído ("discharged"), a derivação falha ("crashes") em Forma Lógica (cf. Chomsky (1992:64, n. 63)). A derivação em (4) pode, no entanto, convergir ("converge"), se o papel temático reservado ao argumento externo for atribuído ao núcleo de TP participial, que é um possível portador de papel temático graças à sua natureza de elemento nominal (cf. seção 2).

No que tange à marcação temática do agente da passiva *mano* ('por mim'), assumirei a proposta de Baker, Johnson e Roberts (1989) para agentes da passiva em inglês. De acordo com essa proposta, o afixo de particípio, quando recebe papel temático, pode formar um tipo de cadeia de duplicação de clítico ("clitic doubling chain") com um sintagma pleno. Assim, em (4) o núcleo de TP associado ao morfema de particípio forma

uma cadeia de duplicação de clítico com o NP *mano* em seu especificador. A formação dessa cadeia é codificada em (4) pelo índice θe, que simboliza o papel temático comum ao núcleo e ao especificador de TP.

3.2 – Propriedades de Caso

Em (4) há três elementos nominais que precisam receber Caso para satisfazer o Filtro dos Casos (o argumento interno, o agente da passiva e o núcleo de TP associado ao morfema de particípio) e três atribuidores de Caso (Infl dominando o verbo auxiliar, o morfema de particípio e o verbo principal).[7] É bem plausível que, por questões de localidade (cf. Raposo e Uriagereka (1990)), Infl da oração matriz não possa atribuir Caso ao agente da passiva, ao núcleo de TP ou ao argumento interno em posição de objeto, do mesmo modo que o núcleo de TP também não pode atribuir Caso ao objeto do verbo *pastatyti*.

Se for assim, só há uma derivação convergente possível: o verbo principal se move para o núcleo de TP, atribuindo-lhe Caso acusativo; o objeto se move para o spec de Infl da oração matriz, onde recebe nominativo; e o núcleo de TP participial atribui Caso genitivo ao agente da passiva em seu especificador.

A única diferença entre a construção passiva em (3) e as construções passivas das línguas românicas, por exemplo, no que se refere a Teoria dos Casos é que nas línguas românicas o núcleo de TP não é um atribuidor de Caso. Assim, faz-se necessária a inserção de uma preposição para que o agente da passiva possa satisfazer o Filtro dos Casos, como ilustrado em (5):

(5) A casa foi comprada *(por) mim

3.3 – Movimento do Objeto e o Princípio do Movimento Mínimo

Na derivação proposta em (4) acima, o spec de TP intervém entre a posição de objeto e o spec de AgrP, para onde o objeto se move. Como o spec de TP em (4) presumivelmente é uma posição A (é uma posição que recebe Caso e entra numa relação de duplicação de clítico com o núcleo de TP), o movimento do objeto para o spec de AgrP deveria produzir uma sentença mal formada por violar a Minimalidade Relativizada de Rizzi (1990).

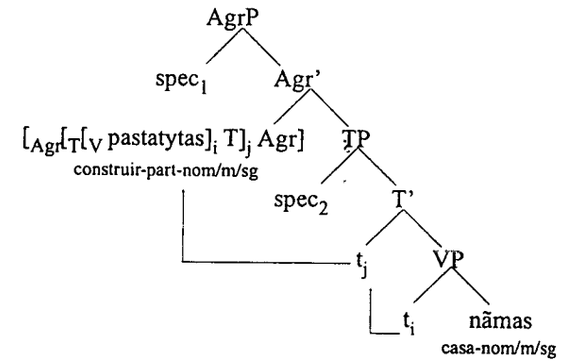
Dentro do Programa Minimalista de Chomsky (1992), no entanto, tal movimento não enfrenta nenhum problema, porque o conceito de minimalidade referido pelo Princípio do Movimento Mínimo está baseado na noção de "equidistância", como definido em (6) (cf. Chomsky (1992:24)):[8]

[7] Cf. seção 5.3.1 abaixo para uma discussão sobre o estatuto do Filtro dos Casos dentro da Teoria da Gramática.

(6) Se duas posições de aterrissagem α e β estão no mesmo domínio mínimo, elas estão equidistantes de γ

Depois que o verbo se move para o núcleo de TP e o complexo [V-T] se move para o núcleo de AgrP in (4), obtém-se a estrutura em (7) abaixo. O domínio mínimo da cadeia ($[V\text{-}T]_j$, t_j) é {$spec_1$, $spec_2$, VP}. Uma vez que estão no mesmo domínio mínimo, spec de AgrP e spec de TP estão equidistantes da posição de objeto enquanto posições de aterrissagem. De acordo com (6), o movimento de nãmas ('casa') sobre *mano* ('por mim') em (4) constitui, portanto, uma operação lícita, paralela ao movimento do objeto para spec de Agro sobre o (vestígio do) sujeito em spec de VP discutido em Chomsky (1992:25-26)).[9]

(7)



A análise aqui desenvolvida constitui, portanto, evidência adicional para a noção de equidistância proposta por Chomsky (1992).

[8] Sobre a definição de domínio mínimo, cf. Chomsky (1992:15-16).

[9] O leitor deve ter notado que a ordem linear da sentença em (3) sugere que o verbo não se move além do spec de TP, pois o agente da passiva precede a forma de particípio *(mano pastatytas)*. Embora eu não disponha de uma resposta definitiva para essa questão, gostaria de apresentar duas alternativas que poderiam dar conta da ordem em (3). De acordo com a primeira alternativa, o movimento do objeto para spec de AgrP é licenciado em Forma Lógica após o movimento do complexo [V-T] para Agr. Essa abordagem é, entretando, incompatível com a proposta de Chomsky (1992:25) de que o movimento visível do objeto ("overt object movement") requer movimento visível do verbo ("overt verb movement"). De acordo com a segunda alternativa, o verbo se move visivelmente (em consonância com a proposta de Chomsky) e o agente da passiva se move para uma posição A' (presumivelmente em adjunção a AgrP). Evidência para essa abordagem se manifesta na ordem preferível de construções como (i), em que o NP genitivo recebe Caso no spec de TP participial (cf. seção 4.1 abaixo), mas se move para o início da sentença:

(i) a. Vaiko buvo serga-m-a
criança-gen foi estar-doente-part-nom/nt/sing
'(Evidentemente) a criança estava doente'
(adaptado de Timberlake (1982))
b. ??Buvo vaiko serga-m-a

3.4 – Concordância com o Argumento Interno

3.4.1 – Passivas Afirmativas

Como mencionado na Introdução, em construções passivas afirmativas com verbos transitivos, a concordância de particípio é determinada pela presença ou ausência do agente da passiva. Se o agente da passiva estiver presente, o particípio concorda obrigatoriamente com o argumento interno (o sujeito superficial) em gênero, número e caso; se o agente da passiva for omitido, o particípio concorda com o argumento interno ou se superficializa com os traços [nom, nt, sg], que presumivelmente são os traços de concordancia não-marcados ("default") em lituano. Esse paradigma é ilustrado em (8):

(8) a. Nãmas buvo mano pastaty-t-as
casa-nom/m/sg foi eu-gen construir-part-nom/m/sg
'A casa foi construída por mim'
b. *Nãmas buvo mano pastaty-t-a
casa-nom/m/sg foi eu-gen construir-part-nom/nt/sg
'A casa foi construída por mim'
c. Nãmas buvo pastaty-t-as
casa-nom/m/sg foi construir-part-nom/m/sg
'A casa foi construída'
d. Nãmas buvo pastaty-t-a
casa-nom/m/sg foi construir-part-nom/nt/sg
'A casa foi construída'

O contraste entre (8a) e (8b) é claramente predito pelo Princípio do Movimento Mínimo, conforme discutido na seção 3.3. De acordo com essa noção, um NP pode se mover "pulando" especificadores, somente se sua posição de aterrissagem estiver no mesmo domínio mínimo que contém os especificadores pulados. O argumento interno de (8a), por exemplo, pode se mover para spec de AgrP pulando o agente da passiva em spec de TP porque os dois specs estão no domínio mínimo da cadeia ($[V\ T]_j$, t_j), como representado em (7). Ao passar pelo spec do AgrP que domina TP, o argumento interno estabelece uma relação de concordância com o núcleo de AgrP, e a forma verbal de particípio é realizada com os traços do argumento interno, a saber, [nom, m, sg].

Se o argumento interno se mover diretamente para a oração matriz pulando tanto spec de TP quanto spec de AgrP, a forma verbal de particípio deve se superficializar com os traços não-marcados do núcleo de Agr ([nom, nt, sg]). Tal movimento, no entanto, viola o Princípio do Movimento Mínimo, como discutido acima. Entre o vestígio do NP objeto e a posição de sujeito da oração matriz, há um especificador preenchido (spec de TP) que não está no domínio mínimo que contém o sujeito da matriz. Por-

tanto, se o argumento interno não passar pelo spec de AgrP (desencadeando concordância com a forma de particípio), o agente da passiva em spec de TP funciona como barreira para o movimento do argumento interno.

Examinemos agora construções passivas em que o agente da passiva não está expresso, como em (8c) e (8d). Tomando (7) como representação da oração participial selecionada pelo verbo copulativo *buti* ('ser'), a primeira pergunta que surge diz respeito à possibilidade de movimento do argumento interno para spec de TP. Se se movesse para essa posição, o NP objeto deveria receber Caso genitivo do núcleo de TP participial, de acordo com a proposta feita na seção 2. No entanto, tal movimento não é permitido, como podemos verificar in (9):

(9) *Nãmo pastaty-t-a
casa-gen/m/sg construir-part-nom/nt/sg
'A casa foi construída'

Vimos na seção 3.1 que, em construções passivas, o núcleo de TP participial recebe o papel temático de argumento externo e forma uma cadeia temática com o agente da passiva em seu especificador, assemelhando-se a construções de duplicação de clítico. Se tomarmos spec de TP em construçoes passivas como uma posição temática, uma derivação com movimento do argumento interno para essa posição deve receber uma interpretação defectiva na interface (cf. Chomsky (1993:28 e 64, n. 23). Assim sendo, (9) converge em Forma Lógica, mas recebe uma interpretação defectiva.

No que tange à possibilidade de o argumento interno se mover para spec de AgrP, desencadeando concordância com o núcleo de AgrP, como em (8c), nada há de surpreendente. Mesmo que o spec de TP não preenchido contasse como barreira para efeitos de minimalidade, spec de AgrP está no mesmo domínio mínimo que spec de TP, e o Princípio do Movimento Mínimo seria respeitado. Interessante é a possibilidade de, na ausência de spec de TP preenchido, o objeto poder pular spec de AgrP e se mover diretamente para a posição de sujeito da oração matriz, como em (8d).

Para dar conta do contraste entre (8b) e (8d), vou me valer da interpretação de Bobaljik e Jonas (1993:8) para o Princípio do Movimento Mínimo. Discutindo o movimento do sujeito de spec de VP para spec de AgrsP, que em línguas como o inglês ocorre antes de SPELL-OUT, os autores ponderam o seguinte:[10]

> "(...) the first intervening filled specifier will always count as the 'first appropriate landing site' in (S.M.) [Shortest Movement, JMN], allovving subject raising directly to Spec-Agrs in English, skipping no filled specifiers (...). Defining distance over chains will in the case of head-movement (adjunction) render only the specifier of the next phrase above this landing site equidistant from the starting point of movement. While non-filled (and therefore nonexistent) specifiers do not count for purposes of the 'first appropriate landing site', only one potential specifier position (realized or not) may ever be 'no farther than' the first appropriate position."

[10] Sobre a noção de *SPELL-OUT*, cf. Chomsky (1992:30).

De acordo com as observações de Bolbajik e Jonas, se o spec de TP participial de uma passiva em lituano não estiver preenchido com o agente da passiva, o argumento interno pode se mover diretamente para a posição de sujeito da matriz sem violar o Princípio do Movimento Mínimo, pois não há nenhum spec preenchido intervindo entre as posições inicial e final do NP objeto. Se não passar pelo spec de AgrP participial, o objeto não desencadeará concordância com o núcleo de AgrP e a forma de particípio se superficializará com traços não-marcados.

3.4.2 – Passivas Negativas

Em contraste com o que ocorre em passivas afirmativas, a concordância da forma verbal de particípio com o argumento interno em passivas negativas é opcional, independentemente da presença ou ausência de agente da passiva, como exemplificado em (10):

(10) a. Nãmas buvo mano ne-pastaty-t-as
casa-nom/m/sg foi eu-gen não-construir-part-nom/m/sg
'A casa não foi construída por mim'

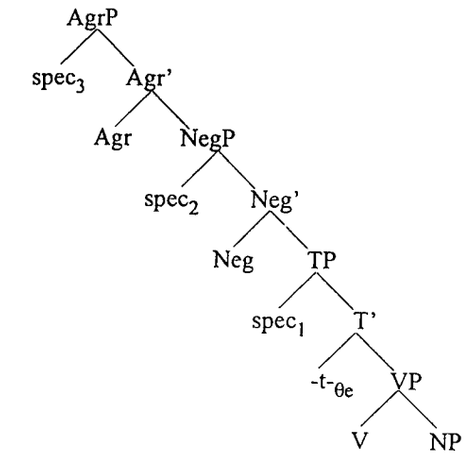
b. Nãmas buvo mano ne-pastaty-t-a
casa-nom/m/sg foi eu-gen não-construir-part-nom/nt/sg
'A casa não foi construída por mim'

c. Nãmas buvo ne-pastaty-t-as
casa-nom/m/sg foi não-construir-part-nom/m/sg
'A casa não foi construída'

d. Nãmas buvo ne-pastaty-t-a
casa-nom/m/sg foi não-construir-part-nom/nt/sg
'A casa não foi construída'

O contraste entre (8) e (10) (mais especificamente, entre (8b) e (10b)) pode receber uma explicação compatível com o Princípio do Movimento Mínimo, se assumirmos que a negação encabeça uma projeção máxima (cf. Laka (1990), Zanutini (1991), entre outros), situada entre AgrP e TP da oração participial, como representado em (11) abaixo:

(11)



Se o spec de TP estiver preenchido com o agente da passiva, o argumento interno tem de se mover para o spec de NegP, a fim de satisfazer o Princípio do Movimento Mínimo (cf. discussão na seção 3.4.1).[11] A partir do spec de NegP, no entanto, o NP objeto pode se mover para spec de AgrP, desencadeando concordância (cf. (10a)), ou pode se mover diretamente para a oração matriz (cf. (10b)). De acordo com Bobaljik e Jonas (1993), esta última opção é viável porque não há nenhum spec preenchido intervindo entre a posição de sujeito da matriz e o spec de NegP. Da mesma forma, se o spec de TP não estiver preenchido, o NP objeto pode se mover para o spec de AgrP (cf. (10c)) ou se mover diretamente para a posição de sujeito da matriz (cf. (10d)), sem violação do Princípio do Movimento Mínimo.

3.4.3 – Variação Dialetal

Convém observar que, a julgar pelas observações de Matthews (1955:358) e Timberlake (1982:522, n. 3), a obrigatoriedade de concordância da forma verbal de particípio com o argumento interno na presença de agente da passiva está sujeita a variação dialetal. Matthews (1955:353, 354 e 358) atesta várias instâncias de passivas com agente da passiva, mas sem concordância de particípio, como exemplificado em (12):

[11] Depois que o verbo se mover para o núcleo de TP e T se mover para o núcleo de NegP, $spec_1$ e $spec_2$ estarão no domínio mínimo da cadeia ($[V\text{-}T]_i$, t_i).

(12) a. Viskas buvo jų pačių daro-m-a
tudo-nom/masc/sing foi eles mesmos-gen/masc/pl fazer-part-nom-nt-sg
'Tudo foi feito por eles mesmos'

b. Jų laukas aria-m-a
eles-gen/masc/pl campo-nom/masc/sg arar-part-nom/nt/sg
'O campo está sendo arado por eles'
(Matthews (1955:353 e 358))]

Se o Princípio do Movimento Mínimo é universal, essas diferenças dialetais provavelmente devem ser atribuídas a diferenças morfológicas. Embora uma análise detalhada dessa variação dialetal fuja ao alcance do presente trabalho, gostaria de aventar a hipótese de que os dois dialetos diferem no tratamento dado ao traços não-marcados de concordância de particípio ([nom, nt, sg]).

Os falantes do dialeto em que (8b) contrasta com (10b) interpretam os traços não marcados de concordância de particípio como indicação de que não há nenhum elemento no spec de AgrP participial. Os falantes do dialeto que permite (8b) e (12), por outro lado, tratam os traços não-marcados de concordância como indicadores de concordância vácua. Como marcadores de concordância vácua, os traços [nom, nt, sg] do núcleo de AgrP participial são compatíveis com qualquer conjunto de Ø-features (cf. Chomsky (1981)) em seu spec, inclusive com o conjunto vazio, quando nenhum elemento se move para seu spec. Nessa perspectiva, o dialeto que aparentemente é mais permissivo também satisfaz o Princípio do Movimento Mínimo, apesar da ausência do reflexo morfológico existente no outro dialeto.

4 – "PASSIVAS IMPESSOAIS"

O lituano tem recebido bastante atenção na literatura,[12] em virtude de suas "passivas impessoais" aparentemente violarem a Lei de Exclusividade de Avanço para 1 ("1-Advacement Exclusiveness Law") da Gramática Relacional (cf. Perlmutter e Postal (1984)).[13] Tem sido proposto que, além de possuir passivas impessoais de verbos inergativos como línguas como o alemão, o lituano admite também passivas impessoais de verbos inacusativos, de alçamento e até mesmo passivas impessoais de passivas padrão. Abaixo veremos como essas construções podem ser analisadas à luz das propriedades do morfema de particípio em lituano discutidas na seção 2.

[12] Cf. Matthews (1955), Timberlake (1982), Nerbonne (1982), Keenan e Timberlake (1985), Postal (1986), Baker, Johnson and Roberts (1989), Nunes (1994a), entre outros.

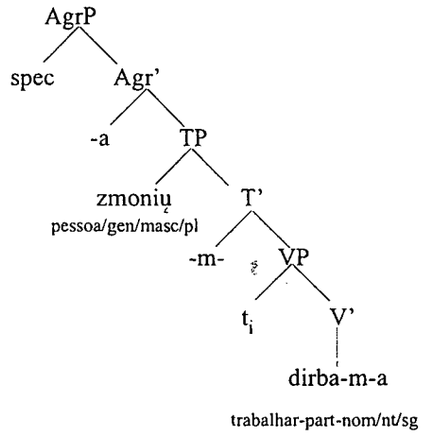
[13] *Grosso modo*, essa lei requer que somente um argumento possa adquirir status de sujeito numa dada derivação.

4.1 – Verbos inergativos

As chamadas passivas impessoais de verbos inergativos, como (13) abaixo, podem ser representadas como em (14):

(13) čia zmonių dirba-m-a
aqui pessoa-gen/masc/pl trabalhar-part-nom/nt/sg
'Aqui as pessoas trabalham'
(Matthews (1955))

(14)



Em (14), *zmonių* é gerado em spec de VP, recebendo o papel temático de argumento externo. e se move para o spec de TP participial, onde recebe Caso genitivo. Esse movimento não é problemático como o movimento do argumento interno para o spec de TP em (9). Em (9), o núcleo de TP recebe o papel temático de argumento externo, podendo estabalecer uma cadeia de duplicação de clítico com um NP em seu spec. O resultado do movimento do argumento interno para o spec de TP em (9), portanto, recebe uma interpretação defectiva. Em (14), por outro lado, o núcleo de TP não recebe nenhum papel temático, permitindo que o movimento do sujeito para essa posição receba uma interpretação apropriada.

Os traços não-marcados da forma verbal de particípio em (13) se explicam pela ausência de movimento para spec de AgrP. O leitor deve estar se perguntando, entretanto, se esse movimento não pode se dar em Forma Lógica. Afinal, depois de receber Caso genitivo no spec de TP participial, o NP sujeito deveria se mover para o spec de AgrP a fim de checar seus traços. Observe-se, porém, que tal movimento não poderia ser postulado para passivas padrão com agente da passiva como em (3), representado em (4). Se o agente da passiva em (4) se movesse para o spec de AgrP participial em Forma Lógica para checar seus traços, o vestígio do argumento interno seria apagado e a derivação não convergiria. Construções como (3),

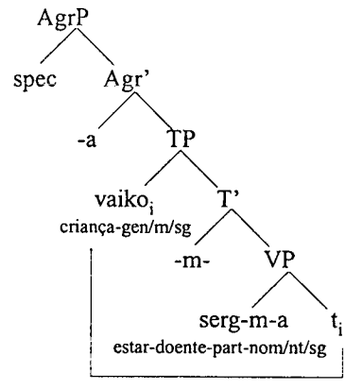
portanto, sugerem que o núcleo de TP participial tanto atribui Caso genitivo quanto checa os traços de um NP em seu especificador. Sendo assim, o sujeito em (14) pode ter seus traços checados no spec de TP, não precisando se mover para o spec de AgrP.

4.2 – Verbos inacusativos

Nessa perspectiva, construções que têm sido analisadas como passivas de verbo inacusativo em lituano, como (15) abaixo, recebem uma análise tão simples como a representada em (16): o argumento interno do verbo inacusativo *sẽrgti* ('estar doente') se move para spec de TP, onde recebe Caso genitivo e checa seus traços; não havendo nenhum elemento no spec de AgrP, a forma verbal de partícipio se superficializa com os traços [nom, nt, sg].

(15) Vaiko serga-m-a
criança-gen/m/sg estar-doente-part-nom/nt/sg
'(Evidentemente) a criança está doente'
(Timberlake (1982))

(16)

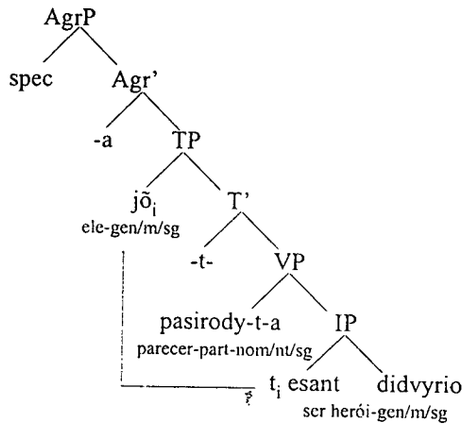


4.3 – Verbos de Alçamento

Como visto nas seções 4.1 e 4.2, spec de TP participial em lituano é uma posição a que se pode atribuir Caso genitivo mesmo quando o núcleo de TP não recebe papel temático. Assim, sentenças que têm sido analisadas como passivas impessoais de verbos de alçamento, como (17) abaixo, envolvem apenas o movimento do sujeito de uma sentença complemento de um verbo de alçamento para o spec de TP participial, como representado simplificadamente em (18). Como visto anteriormente, a forma verbal de particípio se apresenta com traços não-marcados de concordância. O sujeito encaixado só se move até o spec de TP e o spec de AgrP não é preenchido nem em Forma Lógica (cf. discussão na seção 4.1).

(17) Jõ pasirody-t-a esant didvyrio
ele-gen/m/sg parecer-part-nom/nt/sg ser herói-gen/m/sg
'Ele (realmente) parecia ser um herói'
(Keenan and Timberlake (1985))

(18)

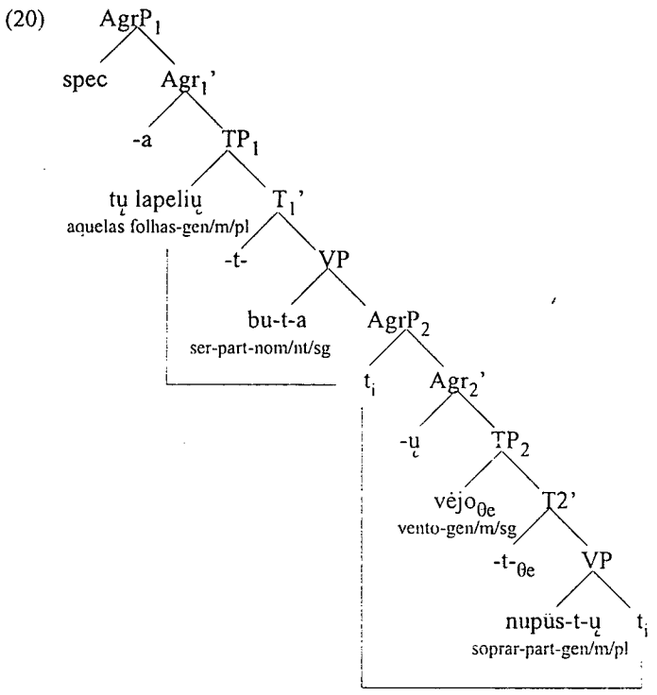


4.4 – "Passivas duplas"

A abordagem desenvolvida acima apresenta uma análise bem trivial para o que se tem considerado como passiva impessoal de uma passiva com verbo transitivo, como ilustrado em (19) abaixo. Sentenças como (19) são aqui tomadas como passivas padrão cujo argumento interno não precisa se mover para o spec de AgrP de uma oração finita, pois pode receber Caso genitivo no spec de TP participial que domina o auxiliar, como representado em (20):

(19) Tų lapelių bū-t-a vejo
aquelas folhas-gen/m/pl ser-part-nom/nt/sg vento-gen/m/sg
nupūs-t-ų
soprar-part-gen/m/pl
'(Presumivelmente) aquelas folhas foram sopradas pelo vento'
(adaptado de Timberlake (1982))

(20)



Como em (4), não há nenhum elemento no spec de VP em (20) para receber o papel temático reservado ao argumento externo. No entanto, uma derivação não converge em Forma Lógica, se algum papel temático não for atribuído ("discharched"). Para evitar essa situação. o papel temático de argumento externo em (20) é atribuído ao núcleo de TP_2, que. como elemento nominal (cf. seção 2), é um possível portador de papel temático. O núcleo do TP_2 entra, então, numa relação de duplicação de clítico com o agente da passiva em seu especificador, atribuindo-lhe Caso genitivo.

Assumindo que o núcleo do TP_2 recebe Caso do verbo principal (cf. seção 3.2), o NP objeto se move para o primeiro spec com Caso disponível, o spec de TP_1, onde recebe Caso genitivo. Observe-se que embora não se mova para o spec do $AgrP_1$ (cf. discussão em 4.1), o argumento interno tem de passar pelo spec de $AgrP_2$. 0 movimento do objeto para o spec de TP_1 pulando o spec de $AgrP_2$ é bloqueado pelo Princípio do Movimento Mínimo, pois o spec de TP_1 e o spec de TP_2 não estão no mesmo domínio mínimo.

Essa análise, portanto, provê uma explicação bem simples para o fato de o argumento interno aparentemente concordar com verbo principal, mas não com o verbo auxiliar. Como o NP objeto passa pelo spec de $AgrP_2$, desencadeando concordância com Agr, o verbo principal se super-

ficializa com os traços do argumento interno, a saber, [gen, masc, pl]. Por outro lado, como o argumento interno não se move para o spec de Agr_1, o verbo copulativo se apresenta com os traços não marcados de concordância.

5 – POSSÍVEIS PROBLEMAS

Embora obtenha resultados interessantes, a análise desenvolvida acima parece estar esteada em três estipulações: (i) orações participiais em lituano envolvem somente uma projeção de AgrP ao contrário de orações finitas; (ii) em construções passivas não há nenhum sujeito em spec de VP; e (iii) o núcleo de TP participial aparentemente só precisa receber Caso quando recebe papel temático (cf. (4) *vs.* (16), por exemplo). Quando somadas, essas estipulações lançam sérias dúvidas quanto ao sucesso da análise aqui empreendida. Abaixo trato de cada uma dessas questões.

5.1 – Construções de Particípio e Agro

Baseando-se na análise de concordância de particípio proposta por Kayne (1989), Chomsky (1991) incorpora uma projeção de concordância de objeto (Agro) à estrutura básica das orações. No entanto, embora construções de particípio em lituano e nas línguas românicas possam realizar concordância com o argumento interno, o morfema de particípio *se segue* ao morfema de particípio (cf. Belletti (1990)). Se a teoria de checagem de traços é determinada pelo Princípio do Espelho de Baker (1988), como assumido por Chomsky (1992:39), a concordância de particípio em lituano e nas línguas românicas deve se projetar como AgrsP, i.e., a projeção de concordância que domina TP.

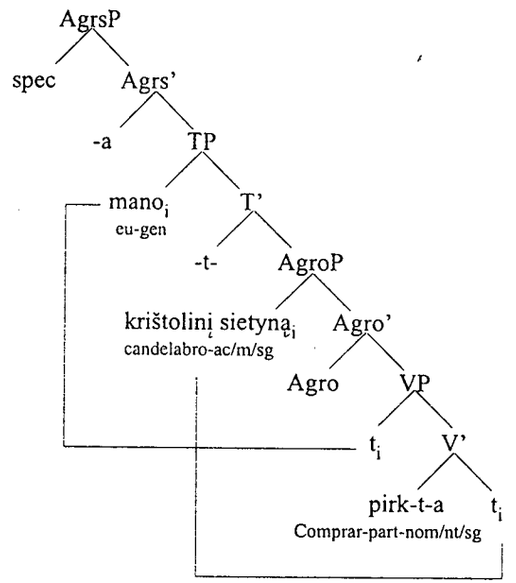
Embora essas observações sugiram que a concordância de particípio com o argumento interno, que se manifesta morfologicamente em lituano, esteja associada a uma projeção de AgrsP, nada do que foi dito até agora exclui a possibilidade de orações participiais em lituano também envolverem uma projeção de Agro, sem que haja manifestação morfológica dessa projeção. Há, porém, duas razões que levam a crer que orações de particípio são realmente defectivas e não envolvem AgroP.

A primeira razão é de ordem interna à análise aqui desenvolvida. Em construções passivas, como vimos na seção 3.1, o papel temático reservado ao argumento interno é atribuído ao núcleo de TP participial. Assumindo que atribuição de papel temático se dá sob irmandade, o núcleo de TP deve ser um nódulo irmão de VP e, portanto, nenhuma projeção de Agro deve intervir entre o núcleo de TP participial e VP.

A essa razão se junta um argumento de natureza empírica. Se TP participial subcategorizasse AgroP, uma sentença como (21) abaixo deveria ser bem formada, pois o sujeito se moveria para o spec de TP, recebendo Caso genitivo e checando seus traços (cf. seção 4.1), e o objeto receberia acusativo do verbo e se moveria para o spec de Agro em Forma Lógica para checar seus traços, como representado em (22):

(21) *Mano pirk-t-a krištolinį sietyną
eu-gen comprar-part-nom/nt/sg candelabro-ac/m/sg
'(Evidentemente) eu comprei o candelabro'

(22)

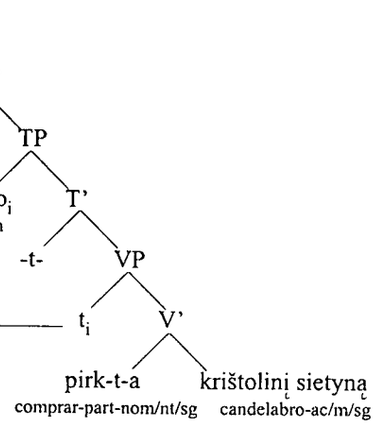


Em outras palavras, se contivesse uma projeção de Agro (21) deveria ter o mesmo *status* gramatical da sentença finita em (23), que presumivelmente emprega AgrsP e AgroP para checar os traços do sujeito e do objeto, respectivamente:

(23) Aš pirkau krištolinį sietyną
eu-nom comprei candelabro-ac/m/sg
'Eu comprei um candelabro'

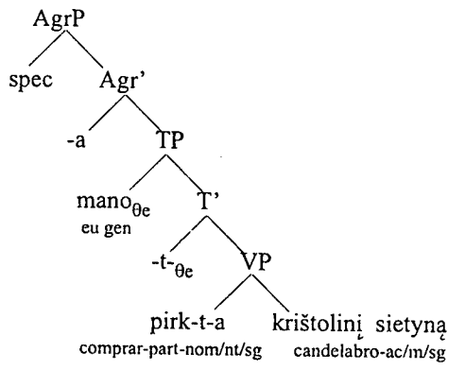
Se, ao contrário, a sentença (21) não contiver uma projeção de Agro, como representado em (24), sua agramaticalidade pode ser facilmente explicada. Observe que em (24) não há como o objeto checar seus traços sem violar o Princípio do Movimen#o Mínimo. Suponhamos, por exemplo, que o objeto se mova pra spec de AgrP participial. Como não há nenhum domínio mínimo que inclua o spec de AgrP, o spec de TP e o spec de VP, o vestígio do sujeito no spec de VP bloqueia o movimento do objeto por ser o spec mais próximo do domínio mínimo que inclui o spec de AgrP e o spec de TP.

(24)



O leitor com certeza deve ter notado que as considerações acima permitem que a sentença (21) seja bem formada com uma estrutura passiva, como representado em (25). Em (25) não há nenhum elemento no spec de VP, e o spec de AgrP e o spec de TP estão no domínio mínimo da cadeia formada pelo movimento de T (mais precisamente, de [V T]) para Agr. O objeto, portanto, pode se mover para o spec de AgrP e checar seus traços. Adiarei a discussão desse problema até a seção 5.3 abaixo, onde argumentarei que a agramaticalidade de (21) com a estrutura em (25) se deve ao fato de que o núclec de TP não é apropriadamente licenciado por Agr.

(25)



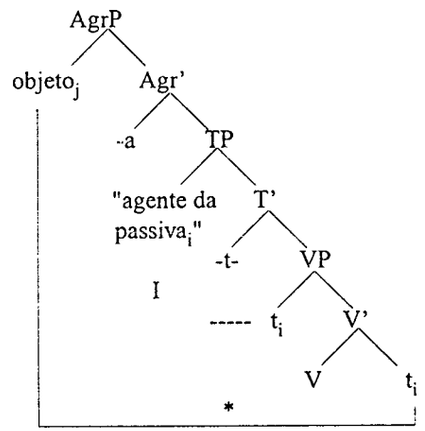
5.2 – Passivas e spec de VP

Na seção 3.1 propus que em construções passivas não há nenhum NP em spec de VP, e que o papel temático reservado ao argumento externo é atribuído ao núcleo de TP participial, que pode formar uma cadeia de duplicação de clítico com o agente da passiva em seu especificador. Mas

visto que um sujeito pode ser gerado em spec de VP e se mover para o spec de TP participial, como em (14), convém verificar se construções passivas também não podem receber análise semelhante.

Na seção 5.1 vimos que construções de particípio em lituano não envolvem uma projeção de Agro. Assim, o objeto de uma construção passiva deve se mover para o spec de AgrP que domina TP (spec de AgrsP) para ter seus traços checados. Porém, se o agente da passiva é gerado no spec de VP e se move para o spec de TP para receber Caso. como representado em (26) abaixo, o movimento do objeto para spec de AgrsP viola o Princípio do Movimento Mínimo: não há nenhum domínio mínimo que inclua o spec de AgrsP, o spec de TP e o spec de VP.

(26)



A configuração estrutural de (26) exibe as mesmas propriedades de (24) ou de construções finitas (com AgroP) em que o sujeito se move para spec de AgroP, discutidas em Chomsky (1992:26). Nessas circunstâncias, o objeto se mantém "congelado" em sua posição, para usar a metáfora de Chomsky, e a derivação não converge em Forma Lógica porque o objeto não checa seus traços. Assim, o fato de o argumento externo de construções passivas não ser gerado em spec de VP é uma conseqüência direta da ausência de AgroP em construções de particípio.

5.3 – O Morfema de Particípio e a Teoria dos Casos

5.3.1 – Relativizando a Teoria dos Casos

Em Nunes (1992, 1993, 1994a, 1994b, a sair), procurei relativizar a Teoria dos Casos em relação à Forma Lógica (FL) e à Forma Fonética (FF), partindo da hipótese de que o Filtro dos Casos (cf. Chomsky (1981))

é independente da Condição de Visibilidade,[14] como defendido por Uriagereka (1988), Raposo e Uriagereka (1990), entre outros. Se o Filtro dos Casos é uma condição que elementos nominais devem satisfazer em FF, independemente da Condição de Visibilidade para argumentos em FL, há quatro possibilidades lógicas para um dado Caso K, no que tange à sua capacidade de licenciar um elemento em FF ou FL:

(27) a. K satisfaz o Filtro dos Casos e a Condição de Visibilidade (um Caso [+FF,+FL])
b. K não satisfaz o Filtro dos Casos nem a Condição de Visibilidade (um Caso [-FF,-FL])
c. K satisfaz o Filtro dos Casos, mas não a Condição de Visibilidade (um Caso [+FF,-FL])
d. K satisfaz a Condição de Visibilidade, mas não o Filtro dos Casos (um Caso [-FF,+FL])

(27a) e (27b) cobrem basicamente o mesmo domínio que a Teoria dos Casos clássica, formulada em Chomsky (1981). (27a) se refere a exemplos em que se diz que um argumento nominal recebe Caso, produzindo um resultado gramatical. (27b) equivale à ausência de atribuição de Caso. (27c) equivale ao que Chomsky e Lasnik (1991) chamam de "Caso nulo", um Caso que somente licencia PRO (cf. Nunes (1994b) para detalhes). (27d) é que é relevante para a presente discussão.

Raposo (1986) propôs que o morfema de infinitivo nas línguas românicas é um elemento nominal e, portanto, sujeito ao Filtro dos Casos. Nunes (1992, a sair) estende a proposta de Raposo. argumentando que o inglês tem um morfema nulo de infinitivo, também sujeito ao Filtro dos Casos devido aos seus traços [-V,+N]. Baseado no fato de que auxiliares modais em inglês moderno podem licenciar um complemento infinitivo, mas não podem licenciar o especificador de seu complemento, como simplificadamente representado em (28) (∅ representa o morfema de infinitivo), Nunes (1992, a sair) propõe que os modais atribuem um Caso [+FF,-FL], i.e., um Caso capaz de satisfazer o Filtro dos Casos, mas não a Condição de Visibilidade.

(28) a. Mary$_i$ may [$_{TP}$ t$_i$ ∅ [$_{VP}$ leave]]
b. *There/it$_{expl}$ may [$_{TP}$Mary ∅ [$_{VP}$ leave]]

Construções infinitivas em frisão parecem fornecer clara evidência morfológica para o Caso [+FF,-FL]. De acordo com Reulland (1981), há duas formas infinitivas em frisão: uma terminada em *schwa* + /n/, usada como complemento de verbos "principais", e outra terminada em *schwa*, usada como complemento de verbos auxiliares. Nunes (1992) interpreta

[14] "An element is *visible* for θ-marking only if it is assigned Case" (Chomsky (1986:94), seguindo proposta de J. Aoun).

essa diferença à luz do inventário de Casos proposto em (27), sugerindo que *schwa* + /n/ seja a manifestação morfológica de um Caso [+FF,+FL] e *schwa*, de um Caso [+FF,-FL].

Construções de particípio em inglês também corroboram o rol de Casos em (27). Roberts (1987) propõe que em contruções de particípio como (29) abaixo, o afixo de particípio *-en* é um clítico que recebe Caso do verbo principal ou do auxiliar *have*, respectivamente:

(29) a. The car was stolen
b. John had stolen the car

Nunes (1993) observa, no entanto, que o auxiliar *have* não é capaz de licenciar qualquer instancia de *-en*. Do contrário, uma sentença como (30a) abaixo, além de uma interpretação "ativa", como representado em (30b), poderia siginificar algo como 'a carne tinha sido comida', representado em (30c). Em (30c), o papel temático de argumento externo é atribuído ao afixo de particípio, que deveria receber Caso de *have*, e um expletivo é inserido na posição de sujeito. O fato de (30a) não poder ter uma interpretação "passiva" leva Nunes (1993) a propor que o auxiliar *have* atribui um Caso [+FF,-FL]. Em outras palavras, *have* é capaz de licenciar somente o afixo de particípio que não receber papel temático.

(30) a. It had eaten the meat
b. it$_i$ had [$_{IP}$ -en [$_{VP}$ t$_i$ eat- the meat]]
c. *it$_{expl}$ had [$_{IP}$ -enf$_{\emptyset e}$ [$_{VP}$ eat- the meat]]

Na próxima seção veremos que o licenciamento dos morfemas de particípio em lituano apresenta uma situação semelhante ao licenciamento de *-en* em inglês.

5.3.2 – Licenciamento dos morfemas de particípio em lituano

Na seção 2 propôs-se que os morfemas de particípio presente e passado em lituano são elementos nominais e, como tais. precisam receber Caso. É plausível, portanto, que numa "passiva impessoal" de um verbo inacusativo como (15), repetida em (31) por conveniência, o núcleo de AgrP atribui Caso ao núcleo de TP:

(31) a. Vaiko serga-m-a
criança-gen/m/sg estar-doente-part-nom/nt/sg
'(Evidentemente) a criança está doente'
b. [$_{AgrP}$ spec [$_{Agr'}$ -a [$_{TP}$ vaiko$_i$ [$_{T'}$ -m- [$_{VP}$ serga-m-a t$_i$]]]]]

Vejamos agora que tipo de Caso Agr participial atribui. Visto que (31) é gramatical e, portanto, satisfaz o Filtro dos Casos, Agr atribui pelo menos um Caso [+FF] para o afixo de particípio. Podemos agora determinar se Agr participial atribui um Caso [+FL] ou [-FL], se examinarmos

sua capacidade de licenciar um afixo de particípio que tenha recebido papel temático. Se o resultado for gramatical temos evidência de que Agr participial atribui um Caso [+FF,+FL]; se agramatical, temos evidência para um Caso [+FF,-FL].

Reconsideremos a sentença (21), repetida em (32a) abaixo, com uma interpretação passiva, representada em (32b):

(32) a. *Mano pirk-t-a krištolinį sietyną
eu-gen comprar-part-nom/nt/sg candelabro-ac/m/sg
'(Evidentemente) eu comprei o candelabro'

b *[$_{AgrP}$ spec [$_{Agr'}$ -a [$_{TP}$ mano [$_{T'}$ -t$_{\theta c}$- [$_{VP}$ pirk-t-a krištolinį sietynąi]]]]]

Conforme mencionado na seção 5.1, a agramaticalidade de (32b) se revela um quebra-cabeça, pois o NP objeto poderia receber Caso acusativo do verbo e se mover para o spec de AgrP para checar seus traços, sem violar o Princípio do Movimento Mínimo. Consideremos, porém, o contraste entre (31) e (32) à luz do inventário de Casos disponíveis na Gramática Universal proposto em (27), e à luz do contraste entre (30b) e (30c) em inglês. Em (32) o afixo de particípio recebe o papel temático reservado ao argumento externo e, portanto, precisa satisfazer a Condição de Visibilidade, além do Filtro dos Casos. O contraste entre (31) e (32) sugere, então, que Agr participial é capaz de satisfazer o Filtro dos Casos, mas não a Condição de Visibilidade. Dito de outra forma, Agr participial atribui um Caso [+FF,-FL].

Essa análise explica, portanto, porque não há auxiliares como *have* nas construções participiais do lituano. Uma vez que Agr participial em lituano atribui um Caso [+FF,-FL], a inserção de outro atribuidor de Caso [+FF,-FL] é bloqueada por questões de economia (cf. Chomsky (1991)).

6 – CONCLUSÃO

A análise aqui desenvolvida mostra que o aparentemente complexo paradigma de concordância de particípio em lituano resulta basicamente de uma única idiossincrasia: o núcleo de TP participial em lituano atribui Caso genitivo ao seu especificador e é capaz de checar os traços de um NP nessa posição (cf. discussão na seção 4.1). Todas as outras propriedades das construções de particípio decorrem da interação dessa idiossincrasia com princípios de ordem mais geral.

A ausencia de concordância da forma participial do verbo principal nas chamadas "passivas impessoais" e do verbo copulativo nas chamadas "passivas duplas", por exemplo, segue se do Princípio da "Auto Satisfação" ("Principle of Greed"), de acordo com o qual Mova α se aplica a um elemento α somente se as propriedades morfológicas de α não forem satisfeitas sem movimento (cf. Chomsky (1992:47)). Nas chamadas "passivas impessoais", o elemento movido (o sujeito de verbos inergativos, o objeto de verbos inacusativos, o sujeito de sentenças complemento de verbos de alçamento, e o argumento interno de "passivas duplas") recebe Caso genitivo no spec de TP participial, onde também checa seus traços. O Princípio da Auto-Satisfação, então, proíbe o movimento adicional para o spec de AgrP participial, o que leva as formas participiais a manisfestarem os traços não marcados de concordância [nom, nt, sg].

Surge com isso a questão dos traços nominais ("NP features", cf. Chomsky (1992:41)) de Agr em "passivas impessoais" e "passivas duplas". Se Agr não tiver seus próprios traços eliminados através da checagem dos traços de um NP, a derivação não converge em Forma Lógica. O fato de que "passivas impessoais" e "passivas duplas" são construções bem formadas nos leva a crer que nessas construções Agr não tem nenhum traço nominal para ser checado, o que certamente está em consonância com o fato de estar associado aos traços (morfológicos) não-marcados de concordância de particípio.

Consideremos agora passivas negativas ou passivas afirmativas sem agente da passiva, que apresentam opcionalidade no que diz respeito à concordância da forma verbal de particípio com o argumento interno. Dentro do Programa Minimalista, operações envolvendo movimento são sempre obrigatórias. Assim, o que descritivamente caracterizamos como concordância opcional não deve ser entendido como duas derivações convergentes com o mesmo custo em termos de economia, mas sim como duas derivacões convergentes distintas que não podem ser comparadas. Em outras palavras, essas duas derivações devem envolver arranjos ("arrays", cf. Chomsky (1992:28)) diferentes.

Com a proposta feita acima de que o núcleo de AgrP participial associado aos traços [nom, nt, sg] não tem nenhum traço nominal para checar, podemos distinguir os diferentes arranjos das passivas negativas e passivas afirmativas sem agente da passiva. Se o Agr participial do arranjo inicial tiver traços nominais, somente a derivação envolvendo movimento do argumento interno para o spec de AgrP participial e, portanto, com concordância entre a forma verbal de particípio e o argumento interno, converge em Forma Lógica. Por outro lado, se um Agr participial sem traços nominais for selecionado como parte do arranjo inicial, o Princípio de Auto-Satisfação bloqueia o movimento do argumento interno para o spec de ArgP participial e somente a derivação sem concordância entre a forma verbal e o argumento interno converge em Forma Lógica.

O que dizer então da concordância obrigatória entre o argumento interno e a forma participial em passivas afirmativas com agente da passiva? Como vimos na seção 3.4.1, a passagem obrigatória do argumento interno pelo spec de AgrP participial na presença do agente da passiva no spec de

TP é decorrente do Princípio do Movimento Mínimo. À luz da discussão acima, somos levados a crer que somente um arranjo inicial que envolva Agr participial com traços nominais pode derivar uma passiva afirmativa com agente da passiva.

Em suma, assumindo-se em linhas gerais o quadro teórico do Programa Minimalista e postulando-se certas propriedades morfológicas para o núcleo de TP participial em lituano, torna-se possível explicar o aparentemente exótico padrão de concordância participial dessa língua.[15]

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[15] Cf. Nunes (1994a) para considerações sobre a aquisicão de construções de particípio em lituano.

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SE APASSIVADOR E *SE* INDETERMINADOR: O PERCURSO DIACRÔNICO NO PORTUGUÊS BRASILEIRO *

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"O **se** ainda fará correr muita tinta"

(Charlotte Galves)

I. INTRODUÇÃO

Seguindo linha de pesquisa proposta por Tarallo e Kato (1989), este artigo tem por objetivo rastrear o percurso diacrônico no português brasileiro das construções com **se** apassivador, como em (1), e de construções com **se** indeterminador, como em (2):

(1) Alugam-se casas.
(2) Aluga-se casas.

Para tanto foram examinados 1365 dados compondo 4 *corpora*: um *corpus* diacrônico compreendendo o período entre 1555 e 1989 formado por cartas, diários e documentos em sua maioria obtidos junto ao Acervo de Lingüística Histórica da UNICAMP[1]; um *corpus* sincrônico composto por 13 entrevistas (aproximadamente 10 horas de gravação) provenientes do

* Este texto constitui uma retomada de parte do segundo capítulo de minha dissertação de mestrado (cf. NUNES (1990)). Uma versão anterior foi apresentada na mesa redonda "Sociolingüística Paramétrica" do V Encontro Nacional da ANPOLL, realizado em julho de 1990 no Recife. Gostaria de agradecer a Emilio G. Pagotto por suas inestimáveis contribuições tanto no período em que estava redigindo minha dissertação, quanto nas subseqüentes tentativas de revisão. Desnecessário dizer que os erros ainda persistentes são de minha inteira responsabilidade.

Banco de Dados da PUCSP; e dois *corpora* contrastivos: um conjunto de 97 dados relativos a entrevistas do português europeu[2] e, por último, 164 dados arrolando o que a gramática normativa aponta como erro em construções com **se**, encontrados no conjunto de reportagens da revista **Veja** referentes ao período de maio de 1988 a maio de 1989.

Parto aqui da análise assumida em Nunes (1990), segundo a qual construções com (1) e (2) podem ser respectivamente representadas por (3) e (4), em que **θe**, **θi** e **θO** significam papel temático reservado ao argumento externo, papel temático reservado ao argumento interno (cf. WILLIAMS (1981)) e ausência de absorção de papel temático, respectivamente:

(3) (expl) alugam-se$_{\theta e}$ casas$_{\theta i}$
(4) pro$_{\theta e}$ aluga-se$_{\theta O}$ casas$_{\theta i}$

Em (3) o clítico **se** absorve o papel temático do argumento externo e caso acusativo e o SN **casas** é detentor do papel temático do argumento interno e recebe caso nominativo em CADEIA (cf. CHOMSKY (1986, p.132)) com o expletivo que ocupa a posição de sujeito. Já em (4), há na posição de sujeito um pronome nulo referencial, que é indeterminado pelo clítico **se**[3]; o SN **casas** continua detendo o papel temático do argumento interno, recebendo agora caso acusativo.

O texto está organizado da seguinte forma: na seção II tratarei do surgimento de **se** indeterminador e de sua implementação no português do brasileiro; na seção III abordarei a elisão de **se** em contextos finitos e, na seção IV, sua inserção em contextos infinitos; por fim, na seção V, serão feitas algumas considerações sobre a avaliação sincrônica dessas formas inovadoras.

II. O SURGIMENTO DE SE INDETERMINADOR

Estudando o surgimento do que aqui está se chamando de construções com **se** indeterminador, Naro (1976, p.788) tece as seguintes considerações:

> "There can be no doubt about the historical chronology: the *se*- passive, with agreement and agent phrase, precedes the *se*- impersonal, whithout agreement or agent phrase, by several centuries".

> "The *se*-impersonal construction (...) is a relatively recent innovation, first occuring in texts of the mid-16th century, and is based on classical *se*- passive, construction."

Indo adiante (p.790):

> "(...) Rodrigues [1913: "Sobre um dos usos do pronome *se*: as frases do tipo *vê-se sinais*'' in Boletim da Segunda Classe, Academia de Sciências, Lisboa; *apud* NARO (op.cit.)] showed quite convincingly that the non-agreeing *se*-construction was used frequently and naturally by Father Antonio Vieira, a cultured man and prolific writer, in letters dated between 1665 and 1680; thus there can be no doubt whatever that the construction was fully grammatical by that time."

Tomando por referência o quadro delineado por Naro e observando os resultados do **corpus**, pode-se afirmar que, pelo menos em relação às construções com verbos transitivos (cf., porém, seção II.2.4), o português europeu falado praticamente se mantém estável em relação à variação provocada pelo surgimento de **se** indeterminador. Ou seja, no português europeu moderno ainda há maciça preferência pela construção com **se** apassivador, como se pode verificar abaixo.

De um total de 97 construções com **se** apassivador e indeterminador, foram separadas todas as construções transitivas com o argumento interno no plural[4], perfazendo um total de 16 dados. Desse conjunto, em apenas 3 construções (19%) houve discordância verbal, isto é, houve preferência por **se** indeterminador.

Já o português brasileiro vem se distinguindo por seguir justamente o padrão oposto, a preferência por construções com **se** indeterminador, como se pode observar na Tabela I[5]:

TABELA I: **SE** APASSIVADOR X **SE** INDETERMINADOR
DISCORDÂNCIA VERBAL POR PERÍODO DE TEMPO

SÉCULO	APL	TOT	%
XVI	0	8	0
XVII	2	17	12
XVIII	30	156	19
XIX	14	25	56
XX	5	10	50
ENTREVISTAS	1	1	100
TOTAL	52	217	24

Embora o número de dados correspondentes às entrevistas não seja suficiente para fazer qualquer afirmação, o percurso documentado nos textos é claro bastante para separar o dialeto brasileiro do europeu: o português

brasileiro cada vez mais vem dando preferência à construção inovadora.

As construções com **se** apassivador devem sua sobrevivência na modalidade escrita culta do português brasileiro à renitência da gramática tradicional, que se pauta pela norma européia. A concordância em construções com **se** no atual estágio do português do Brasil reflete mais um fenômeno de monitoração da escrita (que por vezes conduz a hipercorreções do tipo **tratam-se desses assuntos**) que propriamente algo do domínio do vernáculo (cf. LABOV (1972)).

Esse tipo de monitoração pode ser bem observado, por exemplo, no **Manual da Redação** (1987) do jornal **Folha de São Paulo**. No verbete "**vendem-se casas**" (p.133) encontra-se a seguinte prescrição[6]:

> "Quando o verbo é transitivo direto, em tais casos, emprega-se a passiva pessoal, isto é, o verbo deve obrigatoriamente concordar em número e pessoa com o sujeito da frase. (...) Havendo mais de um verbo, mantém-se a forma plural. Exemplos: 'Procuram-se vender casas', 'desejam-se reivindicar todos os direito'."

À parte a inadequação dos exemplos de locução verbal dados acima, encontra-se no verbete **advérbios** (p.67) a seguinte recomendação:

> "**Deve**-se evitar os **advérbios qualificativos**, como os de afirmação (...). **Deve**-se evitar em especial **os advérbios originados de adjetivos**". [grifo adicionado]

Façam o que eu digo...!

Mesmo o mais ferrenho gramático brasileiro há de considerar a sentença (5) (com o sentido de (6)) inaceitável no português do Brasil:

(5) Comeram-se os bolos.
(6) Os bolos comeram-se.

Entretanto, ambas as senteças são gramaticais e aceitáveis (no sentido relevante) em português europeu (cf. ELISEU (1984, p.86)). O que isso revela é que o nosso gramático está tão ocupado em manter uma concordância que não faz parte do nosso dialeto, que não percebe os demais aspectos relacionados a essas construções. Se a concordância com o argumento interno realmente fizesse parte do nosso sistema e não fosse fruto de pressão escolar, o falante que aceitasse como própria de seu dialeto uma sentença como (9) também deveria aceitar (10), pois, como se verá abaixo, a concordância está associada à possibilidade de alçamento do argumento interno para posição de sujeito.

II. 1. Um fenômeno de reanálise

Assumi na seção I que a estrutura de construções com **se** apassivador e **se** indeterminador como (1) e (2) pode ser respectivamente representada por (3) e (4):

(3) (expl) alugam-se$_{\theta e}$ casas$_{\theta i}$
(4) pro$_{\theta e}$ aluga-se$_{\theta O}$ casas$_{\theta i}$

A semelhança entre essas construções em nível de superfície aliada ao fato de que uma precede a outra diacronicamente permite-nos aventar a hipótese de que o surgimento de **se** indeterminador foi desencadeado por um processo de reanálise sintática da antiga construção com se apassivador.

Nos termos de Langacker (1977, p.58):

> "(...) 'reanalysis' (...) [is] a change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation. Reanalysis may lead to changes at the surface level (...), but these changes can be viewed as the natural and expected result of functionally prior modifications in rules and underlying representations."

Assim, uma sentença com o argumento interno no singular, como (7), constitui o **input** ideal para que a reanálise se processe pois pode ser gerada por duas estruturas diferentes, com **se** apassivador, como em (8), ou com **se** indeterminador, como em (9):

(7) Consertou-se o brinquedo.
(8) (expl) consertou-se$_{\theta e}$ [o brinquedo]$_{\theta i}$
(9) pro$_{\theta e}$ consertou-se$_{\theta O}$ [o brinquedo]$_{\theta i}$

Uma vez levantada a hipótese de que o surgimento de **se** indeterminador foi provocado em função de uma reanálise, resta indagar sobre que elemento especificamente incidiu esse processo. Pelo menos três respostas podem ser levadas em conta:

a) reanálise do clítico: **se** apassivador passa de elemento identificador da estrutura do predicado (por absorver o papel temático reservado ao argumento externo) a participante da relação anafórico-pronominal que se estabelece com o pronome nulo da posição de sujeito (cf. nota 3);
b) reanálise do argumento interno: o argumento interno passa de sujeito a objeto do verbo;
c) reanálise da categoria vazia da posição de sujeito: o expletivo que ocupa a posição de sujeito é reanalisado como um pronome nulo referencial (que é indeterminado pelo clítico **se**).

Creio que escolher uma dessas hipóteses equivale a tomar partido na história do ovo e da galinha. Essas três possíveis reanálises (se de fato não constituíssem diferentes facetas do mesmo fenômeno) produziriam os mesmos resultados ou uma reanálise implementaria a outra. Com efeito, essas três possibilidades resultam da interação do Princípio de Projeção (cf. CHOMSKY (1981, p.38)), que, *grosso modo*, requer que as representações de cada nível sintático observem a subcategorização dos itens lexicais, com as propriedades definidas pela chamada Generalização de Burzio[7] (cf. CHOMSKY (1986, p.139)), descrita abaixo:

(10) "A verb (with an object) case-marks its object if and only if it θ-marks its subject."

Em outras palavras, se o clítico **se** deixou de absorver **θe** (hipótese A), outro elemento, de acordo com o Princípio de Projeção, passou a realizá-lo. Por ser referente ao argumento externo, o papel temático deve ser atribuído a uma posição externa a SV, o que no presente caso equivale a dizer que o sujeito se configura como a posição mais proeminente para a saturação do argumento externo. Assim, se o elemento nulo da posição de sujeito recebe papel temático, o argumento interno, de acordo com (10), recebe caso acusativo. Por outro lado, levando-se em consideração a hipótese B, o fato de o argumento interno receber caso acusativo implica, de acordo com (10), que a posição do sujeito recebe **θe** (podendo ser ocupada por um pronome referencial) e que, portanto, o clítico não pode absorver nenhum papel temático em observância ao Princípio de Projeção. Por fim, o fato de o expletivo poder ser reanalisado como um pronome nulo referencial (hipótese C) implica que a posição do sujeito recebe **θe** e que, de acordo com o Princípio de Projeção, **se** não absorve papel temático; sendo a posição do sujeito temática, o argumento interno, conforme estipula a Generalização de Burzio, recebe caso acusativo.

Assim, parece ser mais adequado dizer que as três hipóteses mencionadas acima compreendem, na verdade, reflexos do mesmo fenômeno. No decorrer deste texto referências a uma ou outra "hipótese de reanálise" devem ser entendidas, portanto, como termos meramente descritivos.

II.2. Mudanças previsíveis

II.2.1. A "posposição" do argumento interno

Retomemos a senteça (6), abaixo representada em estrutura-D e estrutura-S (desconsiderando aspectos irrelevantes para a presente discussão) por (11) e (12), respectivamente:

(11) (expl) comeram-se$_{\theta e}$ [os bolos]$_{\theta i}$
(12) [Os bolos]$_{\theta i}$ comeram-se$_{\theta e}$ t$_{\theta i}$

Embora os dialetos europeu e brasileiro discordem quanto à aceitabilidade de (6), como vimos anteriormente, ambos são unânimes quanto ao juízo de gramaticalidade sobre sentenças como (13)[8], cuja estrutura-D (nos aspectos relevantes para essa discussão) pode ser visualizada em (14):

(13) *Os bolos comeu-se.
(14) pro$_{\theta e}$ comeu-se$_{\theta O}$ [os bolos]$_{\theta i}$

A nítida distinção entre o padrão de gramaticalidade das sentenças (6) e (13) existente no português europeu é explicada em virtude de o movimento de SN ser regido pelo Critério θ (cf. CHOMSKY (1981, p.36)), que, *grosso modo*, requer que cada argumento esteja associado a um único papel temático e que cada papel temático seja atribuído a um único argumento. O movimento do argumento interno para a posição de sujeito é, portanto, lícito em (11) pois a posição de sujeito não é temática (o clítico **se** absorve o papel temático reservado ao argumento externo), mas é ilícito em (14) pois o movimento faria com que o SN **os bolos** estivesse associado a dois papéis temáticos.

Essas considerações conduzem à seguinte predição: no curso do português brasileiro o crescente uso da construção com **se** indeterminador (de construções com discordância verbal) deve ter se dado sob influência direta da posição ocupada pelo argumento interno em estrutura-S.

A Tabela II evidencia essa relação: quando o argumento interno está posposto ao verbo, a média de discordância verbal ultrapassa o dobro da que ocorre na situação inversa.

TABELA II: SE APASSIVADOR X SE INDETERMINADOR:
DISCORDÂNCIA VERBAL EM RELAÇÃO À POSIÇÃO DO ARGUMENTO INTERNO

POSIÇÃO EM RELAÇÃO AO VERBO	APL	TOT	%
ANTEPOSTO	7	50	14
POSPOSTO	41	136	30
TOTAL	48	186	25

As ocorrências de **se** indeterminador com anteposição do argumento interno a que a Tabela II se refere parecem, portanto, estar em franca violação do Critério θ. Um exame minucioso dessas construções revela, no entanto, que não é bem esse o caso. Das 7 construções com **se** indeterminador em que o argumento interno figura anteposto ao verbo, 6 envolvem pronome relativo. Ou seja, apesar de anteposto ao verbo, o argumento interno dessas senteças não ocupa a posição do sujeito, e sim a posição de especificador de COMP (uma posição não argumental). Quanto

à construção restante, transcrita em (15):

(15) "(...)as vexações que a Casa da Moeda costumava fazer a estes novos hoje se não pratica[m]". (*sic*) (carta, 1768; *in* **Cartas da Bahia**)

é extremamente significativo o fato de ter sido posteriormente corrigida, enquanto os demais casos de discordância não tiveram o mesmo tratamento editorial.

II.2.2. A Atribuição de acusativo

Assumi na seção I que em construções como (2) o argumento interno recebe caso acusativo:

(2) Aluga-se casas.

O leitor deve estar se perguntando muito propriamente por que, então, a sentença (16), em que se visualiza a atribuição de acusativo, é agramatical:

(16) *Aluga-se-as.

Creio que a explicação se encontra não no componente sintático da gramática, mas no componente fonológico, já que a agramaticalidade de (16) encontra paralelo no comportamento do reflexivo de terceira pessoa em contraste com os outros reflexivos, conforme demonstrado abaixo usando-se construções do português europeu:

(17) a. Dei-me um presente.
b. Dei-mo.
(18) a. João deu-se um presente.
b. João deu-*so/*se-o.

Uma sentença com locução verbal como (19) sugere que existe uma restrição lexical impedindo construções com clíticos acusativos contíguos a **se**:

(19) Vai-se alugá-las.

Essa idiossincrasia do clítico **se**, qualquer que seja seu emprego, pode elucidar o mistério de **casas** receber caso acusativo em (2), como indica (19),

mas não poder manifestá-lo morfologicamente como em (16).[9]

Diante da possibilidade de construções como (19) explicitarem a atribuição de caso, é-se levado a pensar que, no processo geral da mudança lingüística, as locuções verbais devem ter contribuído significativamente para a reanálise. A comprovação dessa hipótese pode ser feita com base nos resultados da Tabela III abaixo:

TABELA III: **SE** APASSIVADOR X **SE** INDETERMINADOR
DISCORDÂNCIA POR TIPO DE CONSTRUÇÃO

	SIMPLES			EM LOCUÇÃO			TOTAL		
SÉCULO	APL	TOT	%	APL	TOT	%	APL	TOT	%
XVI	0	6	0	0	2	0	0	8	0
XVII	1	12	8	1	5	20	2	17	12
XVIII	19	124	15	11	32	34	30	156	19
XIX	12	22	55	2	3	67	14	25	56
XX	4	9	44	1	1	100	5	10	50
ENTREVISTAS	1	1	100	-	-	-	1	1	100
TOTAL	37	174	21	15	43	35	52	217	24

A Tabela III demonstra que durante todo o processo de mudança as locuções verbais favoreceram a implementação da discordância entre o verbo e o argumento interno, ou em outras palavras, o emprego de **se** indeterminador.

II.2.3. A questão do sintagma agentivo

Há na literatura certa polêmica em relação à possibilidade de as construções com **se** apassivador terem subcategorizado opcionalmente um sintagma agentivo. Naro (op.cit., p.796), por exemplo, seguindo a posição geralmente sustentada pela gramática tradicional, considera que:

> "The *se*-passive could take both *de* and *per*-agents in the classical period. In this respect, at least, the construction paralleled the classical *ser*-passive; and traditional scholars have in fact assumed that it was a true passive in the usual sense -i.e., that the underlying object was surface subject and the underlying object was surface agent. As far as the early classical period is concerned, I believe that this assumption is basically correct, and corresponds to the linguistic reality in the texts."

Representando o outro ponto de vista, temos, por exemplo, Camara Jr. (1977, p.56; verbete **apassivador**):

> "É certo que na linguagem renascentista encontra-se esse complemento [o agente da passiva] na voz médio-passiva - ex.: "do mal que se aparelha pelo inimigo", "o mar... que só dos feios focas se navega" (...), mas é um emprego esporádico e que foi efêmero, resultante em parte da confusão entre o complemento de agente e o de meio (...) e em parte de um esforço consciente na língua escrita a equiparar a voz médio-passiva com a voz passiva específica."

Para apontar a mais adequada dentre essas abordagens, seria necessário um exame minucioso de construções com aparentes sintagmas agentivos num período anterior ao do *corpus* aqui analisado. Embora não disponha de evidências cabais para tomar esta decisão e me valha unicamente do *corpus* analisado, assumo aqui a posição de Camara Jr. (cf. também SAID ALI (1957, p. 101)). Fossem construções correntes no período clássico, seria ponderável esperar que as construções com **se** apassivador e sintagma agentivo perdurassem pelo menos no dialeto europeu, que mantém a preferência por construções com concordância entre o verbo e o argumento interno. Entretanto, como ilustra a sentença (20) (*apud* ELISEU, op.cit., p.86), o português europeu, assim como o português do Brasil, não admite sintagma agentivo em construções com **se** apassivador.

(20) *Os bolos comeram-se pelos miúdos.

A posição da gramática tradicional não parece muito convincente em tentar explicar o motivo por que essa subcategorização deixou de existir nos dois dialetos. Dando prosseguimento ao trecho citado acima, Naro (p.796) acrescenta que:

> "In the later classical period, according to some traditional scholars, the situation was made different by the appearance of the non-agreeing **se**-construction, without surface agent phrase."

De acordo com essa visão, com o surgimento da forma inovadora, o português europeu, que parece ter se mantido estável no que tange à preferência por estruturas com concordância, sofreu um impacto tal, que passou a asteriscar a subcategorização de sintagma agentivo para construções com

concordância. Isso implica que a forma menos utilizada estatisticamente estaria impondo restrições gramaticais sobre a forma majoritária. Portanto, o que se afigura como palusível é que essa subcategorização não tenha integrado o sistema do período clássico.

Assim, ao invés de pensar que a opcionalidade do sintagma agentivo constituiu uma motivação para o surgimento de construções com **se** indeterminador (hipótese levantada por Naro (op. cit., p.802)), parece mais consistente pensar que, pelo menos no português do Brasil, a implementação dessa construção é que deve ter inibido "o esforço consciente na língua escrita a equipar a voz médio-passiva com a voz passiva específica", nos termos de Camara Jr.

No *corpus* analisado encontram-se apenas 7 construções em que se pode dizer que apresentam sintagma agentivo, como exemplificado abaixo:

(21) "No Reo da Madeira se fazem, todos os annoz bastantes mortes *pelo gentio chamadoz Muras* sem que se lhe de causa algua."

(22) "Sou de parecer, que V. Mage. mande, que este facto se examine com toda a circunspecção, e madureza, *por pessoas dezenteressadas, e tementes a Deos.*"

Como esperado, nos 6 dados que tinham o argumento interno no plural, não houve nenhum caso envolvendo simultaneamente discordância verbal e sintagma agentivo.

É interessante atentar para o fato de que as construções envolvendo sintagma agentivo encontradas no *corpus* acham-se todas numa única fonte, os "Autos da Devassa Contra os Índios Mura do Rio Madeira e Nações do Tocantins" (1738-1739). Levando em consideração o período em que foram escritas essas seqüências (bem posterior ao que tem atestado a literatura) e ainda observando que, à exceção de (22), todos os outros dados constituem paráfrases de (21), não é implausível conceber esse uso tardio de sintagma agentivo como um processo de hipercorreção (talvez lexicalmente definido).

II.2.4. A expansão das construções com **se** indeterminador

Uma vez que o português passou a admitir construções em que um pronome referencial nulo na posição de sujeito é indeterminado pelo clítico **se**, era de se esperar que qualquer verbo - e não apenas os transitivos - que pudesse ter um pronome referencial nulo na posição de sujeito (possuindo o traço **[+hum]**)[10] pudesse fazer parte de uma construção com

se indeterminador. Evidentemente, essa fase constituiria uma expansão do **output** do processo de reanálise, e não do processo em si mesmo, já que nesse caso não se tem uma construção com expletivo nulo como **input.**

Pode-se, então, conjecturar que a expansão do emprego de **se** indeterminador tenha ocorrido numa ordem semelhante à seguinte: a) verbos transitivos diretos usados intransitivamente (Ex.: ***Come-se muito no inverno***); b) verbos intransitivos (Ex.: ***Trabalha-se bastante neste lugar***); c) verbos transitivos preposicionados (Ex.: ***Precisa-se de empregados***); d) verbos de ligação (Ex.: ***É-se*** **feliz quando** ***se*** **é jovem**); e) verbos ergativos (Ex.: ***Chegou-se*** **tarde à reunião**); e f) verbos em construções passivas (Ex.: **Aqui** ***se é visto*** **por todos**). Subjaz a essa ordem a hipótese de que a expansão deve ter se dado de acordo, em primeiro lugar, com a presença de argumento externo na posição de sujeito (isso oporia os itens **a, b, c,** e **d** acima aos itens **e** e **f**); e em segundo lugar, com a semelhança estrutural em superfície (isso explicaria a ordem dentro dos pólos).

Essa parece corresponder à ordem relatada na literatura, como se pode verificar, por exemplo, nestes excertos de Said Ali (op.cit.):

> "No domínio do português antigo floresceu tal pronome [o pronome **homem**], e com vantagem, ao lado de fórmulas com o reflexivo **se.** Por fim foi-lhe desaparecendo a vitalidade e na era quinhentista sucumbia de todo afogado pela expansão do pronome **se** que (...) já então se usava quer em verbos transitivos, quer com os intransitivos." (p.100)

> "Torna-se assim inteligível a existência dos nossos *trata-se, fala-se de* (ou *em*), *pensa-se em, resiste-se a,* e muitíssimos outros dizeres semelhantes de que se serviram em larga cópia JOÃO DE BARROS, VIEIRA, BERNARDES, HERCULANO E CASTILHO." (p.97)

> "Houve durante muito tempo relutância em aceitar na linguagem literária os populares *é-se, está-se,* mas desde o século passado a hesitação tende a desaparecer. CASTILHO, no teatro de MOLIÈRE, põe tais modos de dizer até mesmo na bôca de personagens que não costumam exprimir-se incorretamente: *Quando SE é despresado ingratamente, creio ser um dever honroso o procurar fugir* (Tart.65) (...)". (p.99)

O *corpus* analisado, entretanto, não refletiu exatamente a ordem prevista, como mostra a Tabela IV:

TABELA IV: EXPANSÃO DE SE INDETERMINADOR:
OCORRÊNCIAS DE VERBOS NÃO TRANSITIVOS DIRETOS

SÉCULO	TRANSITIVOS INDIRETOS	ERGATIVOS	INTRANSITIVOS	COPULATIVOS	TOTAL
XVI	-	-	-	-	0
XVII	4	1	-	-	5
XVIII	16	-	3	1	20
XIX	25	2	-	1	28
XX	12	2	-	2	16
ENTREVISTAS	-	-	2	-	2
TOTAL	57	5	5	4	71

A Tabela IV, contudo, não pretende contraditar a ordem atestada na literatura. Seus resultados refletem tão somente a distribuição no *corpus* analisado das construções com **se** indeterminador junto a verbos outros que não os transitivos diretos e não devem, portanto, ser tomados como retrato da expansão de **se** indeterminador como um todo no português brasileiro. As lacunas entre os séculos, por exemplo, evidenciam, com efeito, que a distribuição dos dados no *corpus* está sujeita a fatores como a maior recorrência de um ou outro tipo de verbo, ou de itens lexicais específicos.

O que a Tabela IV, dentro de suas limitações, pode trazer de contribuição ao que já foi relatado na literatura consiste no registro das ocorrências dos verbos ergativos. A primeira ocorrência de verbo ergativo apontada encontrada no *corpus* e transcrita abaixo pode constituir um indício de que a expansão de **se** indeterminador, contrariamente à hipótese levantada acima, alcançou os verbos ergativos antes dos verbos de ligação:

> (23) "E feitas as taes medições, tanto, que *se chegou* com a legoa de terras de comprido pelo sertam dentro os houve o dito Ouvidor por impossado aos ditos Padres das ditas terras." (**Livro do Tombo,** 1677)

A ser assim, a semelhança estrutural em superfície deve ter desempenhado papel mais importante que o previsto, pois o fato de o argumento interno de verbos ergativos poder ser alçado para a posição de sujeito deve tê-los aproximado dos intransitivos e transitivos preposicionados.

Uma outra hipótese plausível é a de que a expansão de **se** indeterminador foi sensível aos diferentes tipos de verbo de alçamento. Se, além dos casos clássicos como **parecer**, considerarmos como verbos de alçamento auxiliares como **poder, ter, ir,** etc, os copulativos como **ser, estar, ficar,** etc., e o **verbo** ser das construções passivas, vem à tona uma nítida

divergência de comportamento entre essas subclasses. Em pólos opostos situam-se os auxiliares e os da classe de **parecer**: enquanto os primeiros não influem decisivamente no padrão de gramaticalidade das sentenças herdando eventuais restrições do verbo principal, os últimos acarretam reduzida aceitabilidade[11], como evidenciam as sentenças (24) e (25), respectivamente:

(24) *Vai-se* trabalhar muito naquele lugar.
(25) ?**Parece*-se trabalhar muito naquele lugar.

Os copulativos e o auxiliar das passivas, por sua vez, se submetem à hierarquia quanto ao tipo de argumento que ocupa a posição de sujeito, abordada acima.

Na seção IV retomarei essa ordem de expansão, relacionando-a à inserção de **se** indeterminador em contextos infinitos.

III. O DESAPARECIMENTO DE SE INDETERMINADOR

Galves (1987, p.37) atenta para o fato de que o português europeu difere do brasileiro na identificação do pronome nulo de terceira pessoa do singular em sentenças finitas. Enquanto aquele tem referência determinada, este pode ter referência indeterminada, como exemplificado por (26) (sentença (11) na numeração de Galves):

(26) Nos nossos dias não usa mais saia.

(26) tem referência determinada em português europeu, mas pode ter referência indeterminada[12] no português brasileiro.

Detectada essa peculiaridade do português brasileiro (cf. MILANEZ (1983)), duas construções se habilitam como fonte dessa inovação: construções indeterminadas pela marca de concordância da terceira pessoa do plural como (27), ou construções com **se** indeterminador como (28)[13]:

(27) Nos nossos dias não usam mais saia.
(28) Nos nossos dias não se usa mais saia.

A primeira hipótese se justifica pelo fato de concordância do português brasileiro admitir paradigmas como **ele/eles fala**; já a segunda hipótese busca apoio no quadro geral de supressão de clíticos no português do Brasil.

O caminho para escolher a mais adequada dessas hipóteses leva em consideração a inclusão ou exclusão do enunciador em construções como (27) ou (28). Como bem aponta Maurer Jr. (1951, p.60):

> "(...) [No caso da terceira pessoa do plural com sujeito indeterminado] exclui-se a pessoa que fala e aquela com quem se fala (portanto temos terceira pessoa), ao passo que na forma passiva [construções com **se** indeterminador] incluímos mui comumente a pessoa que fala, ou aquela com quem se fala."

Como a referência indeterminada de (26) pode eventualmente incluir o enunciador, construções finitas com terceira pessoa do singular com referência indeterminada encontram sua mais razoável fonte originadora junto às construções com **se** indeterminador.

Admitindo-se essa derivação, seria esperável que a nova mudança só tivesse início quando já estivesse consolidada a mudança em que construções com **se** indeterminador vinham substituindo construções com **se** apassivador (cf. Tabela I). A Tabela V procura testar essa hipótese mapeando a elisão de **se** indeterminador em construções finitas não coordenadas[14]:

TABELA V: ELISÃO DE **SE** INDETERMINADOR POR PERÍODO DE TEMPO

SÉCULO	APL	TOT	%
XVI	0	17	0
XVII	0	68	0
XVIII	0	336	0
XIX	11	124	9
XX	6	63	10
ENTREVISTAS	94	121	78
TOTAL	111	729	15

A Tabela V mostra que é no século XIX, momento em que as construções com **se** indeterminador se tornam majoritárias no português brasileiro, que começa a haver supressão do clítico **se**.

A alta porcentagem de elisão registrada nas entrevistas antevê

uma sangrenta disputa: depois da vitória numa batalha de quatro séculos com as construções com **se** apassivador, as construções com **se** indeterminador estão agora diante de um oponente de considerável vigor. Tendo surgido presumivelmente no século passado, o fenômeno da supressão de **se** já alcança um percentual de 78% nas entrevistas[15]. Embora esse fenômeno seja fortemente condicionado pelo fator escolaridade, a Tabela VI revela que mesmo os informantes de 3º grau têm uma média de elisão bem considerável:

TABELA VI: ELISÃO DE SE: INDETERMINADOR POR NÍVEL DE ESCOLARIDADE

ESCOLARIDADE	APL	TOT	%
1º GRAU	43	47	91
2º GRAU	32	33	97
3º GRAU	19	41	46
TOTAL	94	121	78

A distância entre o português brasileiro e o europeu torna-se cristalina nessa questão. As entrevistas do português europeu revelaram apenas 3% (2 casos em 72 construções) de supressão de **se** indeterminador em construções finitas não coordenadas. Analisando as ocorrências de elisão, verifica-se que ambas envolvem a expressão cristalizada **diz que**, como exemplificado em (28), o que permite classificar como categórica a rentenção de **se** indeterminador em português europeu[16]:

(28) **"Hoje dizem que há prisão, (...) no caso de ele se recusar mesmo a dar [a pensão], *diz que* há prisão."**

IV. A INSERÇÃO DO CLÍTICO SE

Galves (op.cit., p.35), analisando as sentenças infinitas, observa uma

> "estranha diferença entre PE [português europeu] e PB [português brasileiro]: enquanto que, neste, o **se** tem nítida tendência a desaparecer em todos os seus usos nas frases com tempo, ele reaparece maciçamente - distanciando-se nisso do português europeu - nas infinitivas para expressar a indeterminação."

Essa diferença configura uma padrão como (29) para o português brasileiro e (30) para o português europeu (exemplos (16) e (16') de Galves):

(29) É impossível se achar lugar aqui.
(30) É impossível achar lugar aqui.

A autora atribui essa divergência (p.38) a diferenças na interpretação do sujeito nulo das infinitivas: no dialeto brasileiro, toma-se como referência para esse sujeito nulo um antecedente na sentença ou no discurso (isto é, o tópico); e no dialeto europeu, toma-se um antecedente na sentença ou tem-se uma interpretação indeterminada. **Se** indeterminador surge nas senteças infinitivas, portanto, para impedir que o sujeito seja referencialmente vinculado ao tópico (p.40).

Esse contraste entre os dialetos europeu e brasileiro é nítido em estruturas do tipo **é difícil de**. Como nota Galves (p.40), a sentença (31) é ambígua no português brasileiro, podendo ter a interpretação (a) ou (b), ao passo que somente a interpretação (a) é assegurada pelo dialeto europeu:

(31) O João é difícil de pagar.
(a) É difícil de pagar o João.
(b) É difícil de o João pagar.

Evitando a ambigüidade de (31), o português brasileiro lança mão do clítico **se** para assegurar a interpretação (a), como exemplifica (32):

(32) O João é difícil de se pagar.

Estão em curso no português brasileiro, portanto, dois processos de mudança antagônicos: num processo, **se** indeterminador é elidido em sentenças finitas; no outro, **se** indeterminador é "inserido" em sentenças com infinivo (e, provavelmente, com gerúndio).

Não foi possível, com base no *corpus* analisado, caracterizar o conjunto de estruturas com infinitivo ou gerúndio em que se pode dizer seguramente que há apagamento ou inserção de **se**. Entretanto, parece ser possível mapear o fenômeno da inserção de **se** através de evidência indireta. Com base nas observações de Galves, pode-se afirmar que em relação a construções infinitivas sem marca de concordância, o português do Brasil dá preferência a configurações com **pro** na posição de sujeito, ao passo que o português europeu privilegia PRO para essa posição. Assim, as sentenças (20) e (30) podem ser respectivamente representadas por (33) e (34)[17]:

(33) É impossível [$pro_{\theta e}$ $se_{\theta O}$ achar lugar aqui]

(34) É impossível [$PRO_{\theta e}$ achar lugar aqui]

Uma representação com **se** apassivador (teoricamente possível) para sentenças como (29) está em desacordo com os fatos acima analisados. Se o fenômeno da inserção é produtivo em português brasileiro atual, seria estranho que o clítico inserido fosse apassivador, uma vez que, como mostra a Tabela I, as construções com **se** indeterminador tomam a dianteira no processo de mudança a partir do século XIX. Além do mais, construções com verbos não transitivos ou estruturas transitivas com discordância verbal como (35) e (36), respectivamente, só podem estar associadas a **se** indeterminador (cf. NUNES (1990, seção II.7.5)):

(35) É impossível se trabalhar mais.
(36) É impossível se achar bons lugares aqui.

Esses fatos levam a crer que o fenômeno da inserção de **se** indeterminador não deve ter surgido antes do século XIX, momento em que a construção com **se** indeterminador se torna majoritária no português do Brasil. A Tabela VII se mostra compatível com essa hipótese:

TABELA VII: **SE** APASSIVADOR X **SE** INDETERMINADOR
DISCORDÂNCIA EM FUNÇÃO DA FLEXÃO VERBAL

	FINITO			INFINITIVO			TOTAL		
SÉCULO	APL	TOT	%	APL	TOT	%	APL	TOT	%
XVI	0	8	0	-	-	-	0	8	0
XVII	2	15	13	0	2	0	2	17	12
XVIII	23	116	20	7	40	18	30	156	19
XIX	8	17	47	6	8	75	14	25	56
XX	3	8	38	2	2	100	5	10	50
ENTREVISTAS	1	1	100	-	-	-	1	1	100
TOTAL	37	165	22	15	52	29	52	217	24

A Tabela VII revela que até o século XVIII estruturas infinitivas, como as finitas, privilegiavam as construções com **se** apassivador (com concordância). Quando no século XIX as construções com **se** indeterminador se tornam majoritárias, as construções infinitivas dão um salto considerável, ultrapassando as finitas na preferência pela construção com **se** indeterminador. Isso pode constituir um indício de que é nesse momento que começa a se dar o fenômeno da inserção de **se** junto a infinitivos, pois a inserção deve ter fornecido combustível adicional para a mudança que vinha substituindo construções com concordância por construções sem concordância.

É interessante observar que o processo de inserção está ocorrendo de maneira similar à expansão das construções com **se** indeterminador, como se pode verificar pelo presumível padrão de aceitabilidade do português brasileiro para as sentenças abaixo:

(37) Seria melhor se *fazer* os exercícios. (**transitivo**)
(38) Seria melhor não se *beber* antes das refeições. (**transitivo usado intransitivamente**)
(39) Seria melhor se *trabalhar* mais (**intransitivo**).
(40) Seria melhor se *chegar* mais cedo. (**ergativo**)
(41) ?Seria melhor se *ser* rico. (**copulativo**)
(42) ?Seria melhor se *ser elogiado* pelos mestres. (**passiva**)
(43) ?* Seria melhor se *parecer* ter feito os exercícios. (**alçamento**)

O padrão de aceitabilidade expresso acima corrobora a hipótese levantada na seção II.2.4, segundo a qual a expansão de **se** indeterminador alcançou os verbos ergativos antes dos verbos de ligação.

Uma importante questão levantada por Mary Kato (comunicação pessoal) diz respeito ao diferente comportamento de **pro** em construções com **se** indeterminador. Fica implícito na análise oferecida acima que **pro** é suficiente por si só para garantir a indeterminação em sentenças finitas, permitindo a elisão de **se**, mas não o é em sentenças infinitas, requerendo a "inserção" do clítico.

Não diviso por ora nenhuma resposta convincente para esse problema. Como primeiro esboço de explicação, associo essa assimetria à relação entre pro e o domínio temporal em que está inserido. Em sentenças finitas **pro** se restringe na maioria das vezes (94 ocorrências, 85%, num total de 111 casos de elisão de **se**) a um contexto temporal genérico. Assim, a leitura indeterminada é menos marcada em (44) que em (45):

(44) Maria disse que não usa mais saia no Brasil.
(45) Maria disse que não usou mais saia no Brasil.

Em (45), a interpretação preferível atribui para o sujeito da encaixada a referência do sujeito da matriz.

Já em contextos infinitos, **pro** pode ter referência (in)determinada, independentemente do domínio temporal da sentença matriz. Não há contraste, portanto, entre (46) e (47); em ambas as sentenças são possíveis tanto a leitura em que o sujeito do infinitivo se refere a **João**, quanto a leitura em que se tem referência indeterminada:

(46) O João é difícil de pagar.

(47) O João foi difícil de pagar.

É provável que a incipiente ampliação do contexto temporal abrangendo domínios específicos seja um fenômeno deste século.[18] Entretanto, já é possível encontrar em entrevistas casos em que há neutralização entre os domínios temporais genérico e específico:

(48) "De primeiro *ponhava* aquilo na cabeça; *comeu* aquilo fez mal."

A avaliação sincrônica (cf. WEINREICH, LABOV e HERZOG (1968, p.186) dessas formas inovadoras do português brasileiro constitui o tópico da próxima seção.

V. A AVALIAÇÃO SINCRÔNICA DAS FORMAS INOVADORAS

Para investigar o prestígio das formas inovadoras detectadas no português do Brasil, servi-me como *corpus* dos dados referentes à revista **Veja**. A metodologia empregada para essa análise foi diferente da utilizada para os demais *corpora*; enquanto nestes examinaram-se fenômenos à luz de duas formas variantes, na abordagem de **Veja** procedeu-se apenas a uma análise distribuicional das formas inovadoras. A hipótese que norteava a investigação era a de que, a exemplo de modalidade escrita padrão, a linguagem jornalística de **Veja** deveria admitir poucas ocorrências das inovações aqui apontadas. As inovações mais recorrentes deveriam, portanto, refletir maior prestígio na comunidade.

Comecemos pela discordância entre verbo e argumento interno. Apesar do cerceamento normativo (cf. seção II), não há na linguagem jornalística muita repulsa a esse tipo de discordância verbal. Em **Veja** encontrou-se o expressivo número de 156 ocorrências de discordância, distribuídas da seguinte forma: 84% (131 dados) se referem ao fluxo do texto propriamente dito e 16% (25 dados), a citações de fala ou à transcrição da seção de entrevistas. Isso revela que **Veja** não "põe tais modos de dizer na boca de personagens que costumam exprimir-se incorretamente", mas assume as formas inovadoras sem concordância como adequadas ao discurso jornalístico.

Situação totalmente oposta ocorre com a elisão de **se** indeterminador: encontram-se no *corpus* apenas 3 construções, todas em citação de fala. Esse resultado é totalmente compatível com os resultados acerca da influência da escolaridade na elisão de **se**. Como vimos na Tabela VI, embora os informante de 3º grau empreguem consistentemente a forma inovadora, há uma grande fronteira que os separa dos informantes de 1º e 2º graus.

Em relação à inserção de **se** junto a contextos infinitos, pode-se ter uma idéia de seu prestígio examinando-se a flexão das construções com discordância entre o verbo e o argumento interno. As 156 ocorrências de discordância se distribuem da seguinte forma: 28% (44 dados) compreendem construções finais simples; 31% (48 dados), construções finitas em locução verbal; e 41% (64 dados), construções infinitas simples (não figuram no *corpus* infinitivos em locução verbal). Tomadas isoladamente, verifica-se que há mais ocorrências de construções infinitivas do que finitas em locução verbal (que, como vimos na Tabela III, constitui um forte condicionador para a discordância). Se nos lembrarmos de que foram computados somente os casos de discordância verbal, deixando de lado infinidade de construções com o argumento interno no singular como "**(...) é muito importante se ter consciência disso**", fica patente que as construções com inserção de **se** junto a infinitivos são as que têm maior prestígio dentro do que se pode estabelecer como modalidade escrita padrão.[19]

V. CONCLUSÃO

Herdando do português europeu construções com **se** apassivador e indeterminador, o dialeto brasileiro deu prosseguimento à mudança que vinha expandindo os contextos em que operava **se** indeterminador. Um distanciamento entre os dois dialetos no que tange a essas construções começa a se fazer notar, entretanto, a partir do momento em que o português do Brasil começa a dar preferência à construção com **se** indeterminador em detrimento a **se** apassivador.

O ponto de maior ebulição nesse contínuo afastamento do dialeto europeu se dá no século XIX, quando se esboçam as principais características do momento sincrônico. No século passado, as construções com **se** indeterminador se tornam majoritárias e, articuladas a outros rearranjos no sistema, surgem outras duas mudanças lingüísticas: a elisão de **se** em contextos finitos e sua inserção em contextos infinitos.

NOTAS

1. 1555; LEITE, S.S.T. (s/d): **Cartas dos primeiros jesuítas do Brasil. vol. II.** Comissão do IV Centenário da Cidade de São Paulo; 1571-1877: JONHSON, D.M. (transc.) (1977): **Livro do tombo do Mosteiro de São Bento da cidade de São Paulo.** O Mosteiro, São Paulo; 1617: **Livro do Primeiro Govêrno do Brasil,** Ministério das Relações Exteriores, Seção de Publicações do Serviço de documentação [documentos]; 1725-1726: SCHUMANN, F. (dir.) (1915): **Governadores do Rio de Janeiro, correspondência activa e passiva com a côrte,** Officinas Graphicas do Archivo Nacional, Rio; 1738-1739: **Autos da devassa contra os índios Mura do Rio Madeira e nações do rio Tocantins,** Universidade do Amazonas, Manaus; 1768-1769: PROCESSO LAVRADIO, Marquês do (1972): **Cartas da Bahia,** Arquivo Nacional, Rio; 1863: **Processo contra escravos,** Arquivo Público Municipal, Uberaba; 1894: VARGA, J. (1973): **A última viagem do Barão do Serro Azul,** O Formigueiro, Curitiba [cartas e diários]; 1894-1895: CARNEIRO, D. (s/d): **O Paraná e a Revolução Federalista,** [cartas e diários]; 1919-1920: LIMA, E.C. (1982): **Victor Ferreira do Amaral (o reitor de sempre),** Editora da UFPR, Curitiba [cartas]; 1838-1989; cartas avulsas.

2. Esses dados foram obtidos junto a NASCIMENTO *et alii* (1987); **Português fundamental; volume segundo: Métodos e documentos; tomo primeiro: Inquérito de Frequência,** Instituto Nacional de Investigação Científica - Centro de Linguística da Universidade de Lisboa, Lisboa.

3. A indeterminação do argumento externo, no caso de **se** apassivador, e a do elemento que ocupa a posição de sujeito, no caso de **se** indeterminador, são aqui consideradas diferentemente. Para o primeiro caso, propus, com base em semelhanças entre construções com **se** apassivador e passivas perifrásticas, que anáforas detentoras do papel temático de argumento externo assumem referência indeterminada quando ligadas por um elo da CADEIA com papel temático de argumento interno. Para o segundo caso, propus que a relação anafórico-pronominal **proße...seØ** configura um PRO descontínuo. Para maiores detalhes, consulte-se Nunes (1990, seções I.5.4 e II.7.3).

4. As construções com o argumento interno no singular foram desconsideradas devido ao fato de poder ser a superficialização tanto de uma estrutura com **se** apassivador, quanto de **se** indeterminador (cf. seção II.1).

5. Os 217 dados a que a Tabela I faz referência compreendem apenas as construções transitivas com o argumento interno no plural (cf. nota 4) de um total de 1104 dados englobando construções com **se** apassivador e **se** indeterminador.

6. Esses fatos me foram apontados por Renate de Assumpção.

7. Sobre a aplicação da Generalização de Burzio à estrutura-S de construções com **se** indeterminador, consulte-se Nunes (a sair, seção IV).

8. Não se está considerando aqui a possível gramaticalidade das sentenças em que o SN **os bolos** pode figurar como tópico tanto em (6), quanto em (13).

9. Essa restrição não atua uniformemente nas línguas românticas. O italiano, por exemplo, admite construções envolvendo **si** contíguo a um clítico acusativo, mas não a seqüência de dois **si**'s, em que um é o clítico indeterminador e o outro, reflexivo de um verbo essencialmente pronominal. Evitando essa restrição, o italiano substitui um **si** por **ci**, fato sem paralelo no português. Para maiores detalhes e exemplificação, consulte-se BURZIO (1981, p.36 e 73).

10. Sobre a restrição do traço **[+hum]**, vejam-se, entre outros, NARO (op.cit., p.781), e CINQUE (1988, p.530)

11. Nesse sentido pode-se dizer que a expansão foi mais radical em italiano, pois sentenças com verbos da classe de **parecer** são perfeitamente aceitáveis, como exemplifica (i) (*apud* CINQUE (op.cit., p.522):
    (i) Spesso si *resulta* non essere in regola

12. Galves (op.cit., p.39) atribui essa indeterminação à idéia de que no português brasileiro "a flexão de 3ª pessoa é defetiva em relação ao traço /+**pessoa**/ que é o que assegura a interpretação determinada do sujeito nulo".

13. Não se considerou a possibilidade de construções com terceira pessoa do singular com referência indeterminada serem derivadas de construções com **se** apassivador porque a elisão do clítico violaria o Princípio de Projeção, ou seja, não haveria realização do papel temático reservado ao argumento externo.

14. A elisão de **se** em construções coordenadas a outra construção com **se** se deve não à indeterminação da terceira pessoa do singular, mas às propriedades da coordenação, que sistematicamente favorece a elipse de elementos. Quanto às construções infinitas, consulte-se a seção IV.

15. Observe-se a interessante instância de hipercorreção encontrada no *corpus* diacrônico:
    (ii) "Quando se é adotado o método Braille como base..." (carta, 1988)
    Em (ii), **se** com certeza não indetermina a categoria vazia da posição de sujeito, que nesse caso é um expletivo em CADEIA com o argumento interno **o método Braille.** A grande aceitabilidade dessa sentença sugere que, diante de sua maciça elisão no português brasileiro falado, **se** indeterminador pode estar adquirindo certa coloração enfática, semelhante à lexicalmente determinada por clíticos anafóricos associados a verbos como **ir.**

16. O dialeto europeu mantém o clítico **se** mesmo no marcador discursivo **quer dizer** (também cristalizado no português brasileiro sem a presença do clítico), como exemplifica (iii):
    (iii) "Nove anos, *quer-se dizer*: nos nove anos, estávamos seis meses no mar e seis em terra."

17. Sobre a impossibilidade de **se** ser ligado por PRO, vejam-se, entre outros, CINQUE (op. cit.), NUNES (1990).

18. Os 4 dados de elisão de **se** em domínio temporal específico registrados no século passado são um tanto ambíguos, não podendo ser tomados como evidência esclarecedora.

19. Figuram ainda no *corpus* 9 construções em que o argumento interno é realizado como clítico, como em (iv), evidenciando a interpretação do argumento interno como o objeto do verbo:

(iv) "Também se pode censurá-lo." (**Veja**, 9/11/88)

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THE DISCOURSE REPRESENTATION OF TENSE SEQUENCING IN NARRATIVES*

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1. Introduction

In this paper I investigate the temporal restrictions that hold on narratives, as exemplified by the contrast in (1) (from Hornstein 1990:199):

(1) a. Yesterday, John goes into a bar. He orders a drink. He begins a conversation before leaving. He forgets to pay.
b. ??Yesterday, John went into a bar. He orders a drink. He began a conversation before leaving. He forgets to pay.

In order to account for contrasts such as the one between (1a) and (1b), I propose that the discourse representation of tense structures should be conceived of as being composed of two temporal files, an Utterance Time File and a Narrative File.

This discourse representation in terms of temporal files also proves useful in providing an account of the temporal constraints on cross-sentential and interclausal binding by existential quantifiers in narratives, as illustrated by the contrast in (2) and (3), respectively:

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(2) a. Listen to this! Someone$_i$ told me a very scary story: He$_i$ was walking down the street the other day when all of a sudden a vampire came up to him$_i$. The vampire asked him$_i$ what time it was. Before he$_i$ even answered, the vampire started sucking his$_i$ neck. Can you believe it?!

b. ??Listen to this! Someone$_i$ told me a very scary story: He$_i$ is walking down the street the other day when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. Before he$_i$ even answers, the vampire starts sucking his$_i$ neck. Can you believe it?!

(3) a. Someone$_i$ told me that the other day he$_i$ was walking down the street when...

b. ??Someone$_i$ told me that the other day he$_i$ is walking down the street when...

The paper is organized as follows: in section 2 I briefly present Hornstein's (1990) analysis of tense structure, which will be assumed here; in section 3 and 4 I propose a discourse representation for narratives relying on temporal files; and in section 5 I show how the proposed discourse representation provides some insight to cross-sentential and interclausal quantifier binding, as well as to some apparent violation of Hornstein's (1990) Constraint on Derived Tense Structures.

2. Hornstein's (1990) Analysis of Tense Structures

Hornstein (1990) develops a neo-Reichenbachian analysis of the tense structure of a clause, taking it to be the set of relations between temporal points: the relation between the S point (usually, the utterance time) and the R point (the reference time), and the relation between the R and the E point (the time of the event). In Hornstein's system, the structures of the basic tenses of English are as in (4) below. The linear order of the S, R and E points reflects their temporal order. If two points are separated by a line, the leftmost point is interpreted as temporally preceding the other point. If two points are separated by a comma, they are interpreted as contemporaneous.

(4)

S,R,E	present	E_S,R	present perfect
E,R_S	past	E_R_S	past perfect
S_R,E	future	S_E_R	future perfect

Hornstein (p. 11) argues that the S point plays two different roles in a given tense structure. It temporally anchors the time of the event (through its relation with the R point) and, in addition, it functions as a deictic element by being temporally anchored within the speech situation. This dual function of the S point can be better identified in complement clauses such as the ones in (5). In (5a), Mary's departure on Sunday is temporally located after the utterance time (the temporally independent reading), whereas in (5b) it is located after the time of saying, but not necessarily after the utterance time (the temporally dependent reading).

(5) a. John said that Mary will leave on Sunday.
b. John said that Mary would leave on Sunday.

In order to account for the different readings assigned to embedded complement clauses, Hornstein proposes an optional rule (the Sequence of Tense Rule) which links the S point of the embedded tense structure to the E point of the embedding tense structure so that they are interpreted as contemporaneous. If the rule applies, the temporally dependent reading is derived. If it does not, the unlinked S point is identified as the utterance time by default, deriving the independent reading. Thus, the tense structures of (5a) and (5b) are as in (6a) and (6b):

(6) a. E,R_S
S_R,E

b. E,R_S
|
S_R,E

Hornstein further argues that if a time is made sufficiently salient in the discourse, it may reorient the value of the S point to a time other than the utterance time, as illustrated by (7) (from Hornstein 1990:11):

(7) It was 1812 just before the Battle of Borodino. The anticipation of the coming struggle is palpable. Napoleon has just woken. He is getting ready to inspect the troops and see that they are ready for the battle that will determine the fate of Europe.

The tense structures of the clauses following the first sentence in (7) take *1812 just before the Battle of Borodino* to be the value of their unlinked S points. Napoleon's awakening and getting ready, for instance, are evaluated not with respect to the utterance time, but rather with respect to *1812 just before the Battle of Borodino*.

In the following sections, I discuss some restrictions on the concatenation of unlinked S points with different temporal values.

3. Discourse Sequences and the Uniform S Point Indexation

Hornstein (1990:199) notes that "one cannot move back and forth between the past tense and the historical present. Once one switches, the present tense must be maintained". This restriction is what distinguishes discourse sequences such as (1a) from (1b), repeated below as (8) and (9):

(8) Yesterday, John goes into a bar. He orders a drink. He begins a conversation before leaving. He forgets to pay.

(9) ??Yesterday, John went into a bar. He orders a drink. He began a conversation before leaving. He forgets to pay.

In (8), the value of the S point is taken to be *yesterday* throughout the discourse sequence. In (9), by contrast, the S points of the first and third sentences are anchored on the utterance time, whereas the S points of the second

and forth sentences are assigned the value *yesterday*, yielding an unacceptable discourse sequence.

The intuition seems to be that at the level of discourse, the deictic point of temporal reference should be kept constant in order for the temporal location of the events of a discourse sequence to be connected to one another. Let us suppose that this condition on the well-formedness of a discourse sequence can be informally described as in (10) below. The contrast between (8) and (9) thus reduces to the fact that the former, but not the latter, complies with the USPIC.

(10) *Uniform S Point Indexation Condition (USPIC)*
In a given discourse sequence, every unlinked S point must have the same deictic index

It should be noted that the notion of "the same deictic index" of the USPIC is to be understood as a cognitive representation, rather than physical reality. In a discourse sequence such as (11) below, for example, each sentence has an unlinked S point. However, (11) is not interpreted as if the utterance time of the first sentence were taken to be different from the utterance time of the second sentence, which in fact corresponds to physical reality. Rather, (11) is interpreted as if it involved just a single utterance time:[1]

(11) John left yesterday. He will be back tomorrow.

Notice also that, as is explicitly stated in (10), the USPIC is a condition on the well-formedness of a given discourse sequence. The tense structures of each of the sentences in (9), for instance, are well-formed; the ill-formedness of (9) results from stringing the sentences together at the discourse level.

3.1. Potential Problems

One problem with the formulation of the USPIC in (10), however, is in determining the theoretical import of the notion of "discourse sequence". In Hornstein's sequence in (7), repeated below, for instance, there are two different values assigned to the S points. The S point of the first sentence receives the utterance time value, and all the remaining S points are assigned the value *1812 just before the Battle of Borodino*. Therefore, if (7) is a discourse sequence, the USPIC as stated in (10) will wrongly rule it out.

(7) It was 1812 just before the Battle of Borodino. The anticipation of the coming struggle is palpable. Napoleon has just woken. He is getting ready to inspect the troops and see that they are ready for the battle that will determine the fate of Europe.

Similar considerations apply to sequences such as (12):

(12) Listen to this: I'm walking down the street the other day when all of a sudden this guy comes up to me. He asks me what time it is. Before I even answer him, he steals my wallet. Boy, he was really quick! I will never go back to that neighborhood again.

[1] Thanks to Juan Uriagereka (p.c.), who brought this issue to my attention.

In (12) the S point of the first and the last two sentences are assigned the utterance time value, whereas the remaining unlinked S points are assigned the value *the other day*. Again, if (12) is a discourse sequence, it should pattern with (9) according to the USPIC, rather than with (8), clearly another undesirable result.

There are various ways one could proceed with such an approach. One could, for instance, take (7) and (12) to be discourse sequences and reformulate the USPIC; alternatively, one could keep the USPIC as formulated in (10) and provide a definition of discourse sequence that excludes (7) and (12). In the next section I pursue a different route by proposing a discourse representation of tense sequencing which does not directly rely on the notion of discourse sequence.

4. Discourse Representation of Tense Structures

Let us compare the unacceptable sequence in (9), repeated below for convenience, with the well-formed sequences in (7) and (12):

(9) ??Yesterday, John went into a bar. He orders a drink. He began a conversation before leaving. He forgets to pay.

The generalization that emerges from this comparison is that an S point outside the narrative can be assigned the utterance time value, but an S point inside the narrative cannot. So, (9) is not well-formed because the S point of the sentence *He began a conversation before leaving*, which is part of the narrative, is assigned the utterance time value. In (7) and (12), on the other hand, the S points that are assigned the utterance time value are either announcing or closing the narrative. In other words, as far as the USPIC is concerned, the announcement and closing of a narrative may not count as part of the narrative itself.

Things are not this simple, though. In a well-formed sequence such as (13) below, the S point of the sentence *And, boy, he was tall!*, which is apparently inside the narrative, is assigned the utterance time value, while the S points of the other sentences of the narrative are assigned the value *the other day*:

(13) Listen to this: I'm walking down the street the other day when all of a sudden someone comes up to me. And, boy, he was tall! He asks me what time it is. Before I even answer him, he steals my wallet. I'll never forget this experience!

The problem that (13) poses is that once we allow an S point with the utterance time value inside a narrative with another value for its unlinked S points, we lose the account for the contrast between (7) and (12), on the one hand, and (9), on the other.

(13), however, may in fact turn out not to be problematic at all. Notice that if the exclamative expression *boy* is removed from (13), as illustrated in (14), the resulting sequence is not well-formed, having the same flavor of "moving back and forth", as Hornstein puts it, that is present in (9):

(14) ??Listen to this: I'm walking down the street the other day when all of a sudden someone comes up to me. He was very tall. He asks me what time it is. Before I even answer him, he steals my wallet. I'll never forget this experience!

The intuition that lies behind the contrast between (13) and (14) is that an S point may be assigned the utterance time value within a narrative with a different value for unlinked S points, as long as the speaker signals this by means of exclamative expressions or change in intonation, for example. That is how the expression *boy* in (13) makes the discourse sequence well-formed from a discourse point of view. It signals to the hearer that the following is an aside comment, which does not pertain to the body of the narrative itself.

The role of such expressions is the mirror image of the announcement of a narrative. In the announcement of a narrative, the speaker signals to the hearer that the following stretches of discourse may have a value other than the default utterance time assigned to unlinked S points. In informal narratives, this signaling is generally realized by means of expressions which attempt to involve the hearer, such as imperatives (*Listen to this!*) or questions (*Wanna hear a crazy story?*).[2] The closing of the narrative, in turn, signals the return to the utterance time value for the S points of stretches of discourse yet to come and may be realized by various means, including exclamations and questions.

The intent of this discussion is not to examine the ways such value changes for the S point may be expressed. What is relevant for the present purposes is that if the sentence *And, boy, he was tall!* in (13) is not part of the narrative itself, it may be the case that at the level of discourse the tense structures of sequences involving narratives are computed in parallel. In other words, it is not the case that one really changes from the narrative value to the utterance time value; rather, the narrative is computed both with respect to its own value for unlinked S points and with respect to the utterance time. Thus, what seems to be a change from the narrative value to the utterance time is just the activation of the narrative while computed with respect to the utterance time.

This double computation is more clearly exemplified by a sequence such as (15):

(15) Let's pretend that we are back in the 60's. Although we are finding great resistance, we are winning the battle for peace and love. We think that in 50 years everyone in the world will be free and happy. Gee, how naive we were in those days! The way things are going now, in 20 years we'll be lucky if the world is still in one piece.

[2] This explains why Hornstein's sequence in (8) sounds more natural if an announcement is added to the narrative, as in (i):

(i) Listen to what happened yesterday: John goes into a bar. He orders a drink. He begins a conversation before leaving. He forgets to pay.

The first sentence of (15) signals the beginning of a narrative and sets up a new value for unlinked S points of the narrative: *the 60's*. The penultimate sentence closes the narrative by going back to the utterance time value. The last sentence is what interests us here. Notice that *20 years* refers back to *50 years* in the narrative. In fact, what happens is that the time adverb of the narrative is temporally updated with respect to the utterance time. This suggests that narratives that have a value for their unlinked S points which is different from the default utterance time value may be temporally computed both "internally" (with respect to the value of their unlinked S points), and "externally" (with respect to the utterance time value).

Borrowing Heim's (1982) discourse file metaphor, I propose that this double temporal computation be represented by means of two different temporal files, an Utterance Time File and a Narrative File. The Utterance Time File is always open, since it is the deictic basis for speech interaction. It may also contain narratives, as long as the value of the unlinked S points of such narratives is the utterance time. If a narrative has a value for its unlinked S points other than the utterance time, this needs to be signaled in order for a subordinate Narrative File to be opened. I propose that the temporal computation of a narrative with respect to the Utterance Time File proceeds along the lines of the algorithm sketched in (16):[3]

(16) a. If within the Utterance Time File, the existence of an upcoming narrative is signaled, check if the S point of the first sentence of the narrative is compatible with the default utterance time value. If it is, proceed with computation within the Utterance Time File; if it is not, open a subordinate Narrative File and proceed with computation within the Narrative File.

b. If a Narrative File is opened, let the unlinked S points inside it pick up their value from some temporal expression either within the Utterance Time File or at the beginning of the narrative.

c. For every sentence in the Narrative File, create a copy in the Utterance Time File and temporally update its verbal forms by replacing the Narrative File value for unlinked S points by the utterance time value.[4]

[3] I will leave for another opportunity the discussion of the properties of narratives embedded in narratives.

[4] To be precise, not only tense, but every deictic element should be updated, as illustrated in (i) and (ii) below. In this paper, however, I will be concerned just with temporal updating.

(i) Then the cop asked me: "What are you doing here this late?".
(ii)

d. When a proper signal is given within the Narrative File (through exclamative expressions, change in intonation, etc.), activate the Utterance Time File, enter the sequence containing the signal and return to the Narrative File.[5]

e. When a proper signal is given or the narrative comes to an end, close the Narrative File, activate the Utterance Time File and proceed with the computation.

Following the algorithm sketched in (16), a discourse sequence such as (15) can be represented as in (17), in which underlined sentences represent the actual utterance, non-underlined sentences represent parallel computation, and italicized verbs in the Utterance Time File show temporal updating:

Utterance Time File	
Then the cop asked me	*Narrative File*
What *I was* doing *there that* late	What are you doing here this late?

[5] If the sequence containing the signal is "long" (in a sense to be made precise), some expression signaling the return to the Narrative File is required, as indicated by the sequence in (i):

(i) Wanna hear a funny story? John is walking down the street the other day when a bucket full of red paint comes from nowhere and falls on him. My goodness, that bucket really soaked him! He looked like a giant tomato! ??(So), he just wipes off his face and keeps going as if nothing has happened.

(17)

Utterance Time File	
Let's pretend we are back in the 60's.	*Narrative File*
Although we *were* finding great resistance, we *were* winning the battle for peace and love. We *thought* that in 50 years everyone in the world *would* be free and happy.	Although we are finding great resistance, we are winning the battle for peace and love. We think that in 50 years everyone in the world will be free and happy.
Gee, how naive we were in those days! The way things are going now, in 20 years we'll be lucky if the world is still in one piece.	

If this picture is roughly correct, it allows us to dispense with the notion of discourse sequence in the formulation of the Uniform S Point Indexation as stated in (10). The USPIC can be revised in terms of the notion of temporal file, which is independently required for the computation of tense structures. Thus, the USPIC should be reformulated as in (18):

(18) *Uniform S Point Indexation Condition (*USPIC*)*
Each temporal file must have a single deictic value for its unlinked S points.

Let us now see how the discourse representation of temporal files interacts with the USPIC to account for the contrast between (13) and (14), repeated below:

(13) Listen to this: I'm walking down the street the other day when all of a sudden someone comes up to me. And, boy, he was tall! He asks me what time it is. Before I even answer him, he steals my wallet. I'll never forget this experience!

(14) ??Listen to this: I'm walking down the street the other day when all of a sudden someone comes up to me. He was very tall. He asks me what time it is. Before I even answer him, he steals my wallet. I'll never forget this experience!

According to the algorithm sketched in (16), (13) and (14) receive the discourse representations in (19) and (20), respectively:

(19)

Utterance Time File	*Narrative File*
Listen to this:	
I *was* walking down the street the other day when all of a sudden someone *came* up to me.	I'm walking down the street the other day when all of a sudden someone comes up to me.
And, boy, he was tall!	
He *asked* me what time it *was*. Before I even *answered* him, he *stole* my wallet.	He asks me what time it is. Before I even answer him, he steals my wallet.
I'll never forget this experience!	

(20)

Utterance Time File	*Narrative File*
Listen to this:	
I *was* walking down the street the other day when all of a sudden someone *came* up to me. He was tall. He *asked* me what time it *was*. Before I even *answered* him, he *stole* my wallet.	I'm walking down the street the other day when all of a sudden someone comes up to me. He was very tall. He asks me what time it is. Before I even answer him, he steals my wallet.
I'll never forget this experience!	

In both (19) and (20) the imperative of the first sentence signals that the following sentences may contain a narrative. Given the context in which the first sentence is uttered, the unlinked S Point of the sentence *I'm walking down the street the other day when all of a sudden someone comes up to me* is not compatible with the utterance time value. Hence, a Narrative File is opened in accordance with (16a). This sentence is entered in the Narrative File and the value for unlinked S points in the Narrative File is established by the temporal expression *the other day*, in compliance with (16b). (19) and (20) differ, however, with respect to the file in which the third sentence is entered. In (19), the exclamative expression *boy* activates the Utterance Time File, suspending the narrative in the Narrative File. After the exclamation, the narrative in the Narrative File resumes with its S point value before interruption, namely, *the other day*. In (20), on the other hand, the sentence *He was very tall* is entered

into the Narrative File, since no change of file was signaled. Finally, after the penultimate sentence is entered into the Narrative File of both (19) and (20), the exclamation in the last sentence closes the narrative, activating the utterance time value for subsequent S points.

The Utterance Time File of both (19) and (20) complies with the USPIC, given that all unlinked S points have the utterance time value. The same is true with respect to the Narrative File of (19), once all unlinked S points have the value *the other day*. In the Narrative File of (20), however, the sentence *He was tall* is not temporally evaluated with respect to the value for the S point of the Narrative File. Under the relevant reading established by the context, the property of someone's being tall is temporally located as preceding the utterance time, rather than the time *the other day*. Thus, the ill-formedness of (14) follows from the fact that the Narrative File violates the USPIC because the S point of the sentence He was tall is assigned the utterance time value rather than the value assigned to the other unlinked S points of the Narrative File. The same, *mutatis mutandis*, can be said about the contrast between (8) and (9).

5. Further Data

5.1. Apparent Violations of Hornstein's CDTS

Temporal adverbs cannot be freely combined with any tense structure, as illustrated in (21):

(21) a. John left yesterday.
b. *John left tomorrow.

Hornstein (1990:15) accounts for the various possibilities of temporal modification by postulating a condition preserving the basic tense structure of the modified clause:

(22) *Constraint on Derived Tense Structures (CDTS)*
The Derived Tense Structures (DTS) must preserve the Basic Tense Structures (BTS)

(23) BTS are preserved iff:
a. No points are associated in DTS that are not associated in BTS.
b. The linear order of points in DTS is the same as that in BTS.

(24) X associates with Y $=_{def}$ X is separated from Y by a comma (see section 2).

The representation of (21a) and (21b) is as in (25) and (26) below, respectively. (21a) is a well-formed sentence because the adverb *yesterday* preserves its BTS; (21b), on the other hand, is unacceptable because it violates the CDTS. The adverb *tomorrow* designates a time later than the speech time, thus changing the order of the temporal points of the BTS.

(25) E,R_S + yesterday = E,R_S
|
yesterday

(26) E,R_S + tomorrow = S_R,E

tomorrow

The CDTS also regulates modification by temporal clauses. The only difference is that in the case of clausal modification, the S and the R points of the embedded clause link to the S and R points of the embedding clause (Hornstein's Rule for Temporal Connectives). Thus, the contrast between the sentences (27a) and (28a) below follows from the CDTS, as their tense structures show. In (27b) linking the S and R points preserves the BTS of the matrix and embedded clauses. On the other hand, linking the R points of (28b) changes the linear order of the temporal points of the embedded clause, violating the CDTS.

(27) a. John left when Peter arrived.
b. E,R_S
E,R_S

(28) a. *John left when Peter arrives.
b. E,R_S
S,R,E

Sentences involving a temporal clause with historical present, however, apparently pose a problem for Hornstein's account of temporal modification. The first sentence of a sequence such as (29) below has a matrix clause with past tense structure and an embedded temporal clause with present tense structure. Hence, this sentence should not be well-formed since its tense structure is the same as (28b), which violates the CDTS.

(29) I was walking down the street last night when someone calls my name. I look around and see no one. I keep walking when the person calls me again. This time I recognize her voice and realize where it is coming from...

Sentences such as the first one in (29) may nonetheless be compatible with Hornstein's analysis if we allow subordinate clauses to be entered in a temporal file independently from their embedding clauses. If so, the discourse representation of (29) is as in (30):

(30)

Utterance Time File	*Narrative File*
I was walking down the street last night when	
someone *called* my name. I *looked* around and saw no one. I *kept* walking when the person *called* me again. This time I *recognized* her voice and *realized* where it *was* coming from...	Someone calls my name. I look around and see no one. I keep walking when the person calls me again. This time I recognize her voice and realize where it is coming from...

If (29) is to be represented as in (30), there is no violation of the CDTS. The S point of clause *Someone calls my name* receives the value *last night* and is entered in the Narrative File.[6] Hence, the matrix clause of the first sentence is modified not by the clause *Someone calls my name*, which was actually uttered, but rather by its updated counterpart in the Utterance Time File *Someone called my name*. In other words, at the discourse level the first sentence of (29) has the tense structure represented in (27b), a past tense matrix clause temporally modified by a past tense embedded clause, which is in full compliance with the CDTS.

This approach receives independent support from the USPIC. Had the clause *Someone calls my name* been entered in the Utterance Time File, it would be impossible for its S point to link to the matrix S point because they do not have the same deictic value. However, if the embedded S point remains unlinked, the Utterance Time File will contain an unlinked S Point with a value other than the utterance time, yielding a violation of the USPIC. In order to prevent this wrong result, we must allow that subordinate clauses that have an S point with a value other than the utterance time may be entered in the Narrative File independently from their embedding clauses. I will return to this issue in section 5.2.2 below.

5.2. Quantifier Binding across Temporal Files

In this section, I investigate whether quantifier binding across temporal files is allowed. Before we move on to the discussion proper, let us see the kind of data that may bear on the issue.

As is well known, cross-sentential binding is generally allowed with existential, but not with universal quantifiers (see Kamp (1981), Heim (1982), Chierchia (1992), among others), as exemplified in (31):

[6] This means that the algorithm sketched in (16) will have to be modified to make reference to clauses rather than sentences. The data presented in section 5.2.2 also point in this direction. Due to space limitations, however, I will keep the informal algorithm presented in (16).

(31) a. Someone$_i$ arrived. He$_i$ is handsome.
b. *Everyone$_i$ arrived. He$_i$ is handsome.

As discussed by Nunes and Thompson (1993, 1994), this distinction between universal and existential quantifiers also arises in binding into a temporally independent clause, but not into temporally dependent clauses, as illustrated in (32) and (33), respectively:

(32) a. Someone$_i$ said that he$_i$ will leave soon.
b. *Everyone$_i$ said that he$_i$ will leave soon.

(33) a. Someone$_i$ said that he$_i$ would leave soon.
b. Everyone$_i$ said that he$_i$ would leave soon.

Sentences such as (33) are irrelevant for the question of whether quantifier binding across temporal files is possible. As opposed to temporal clausal adjuncts (see section 5.1), a complement clause morphologically marked as temporally dependent is not amenable to receiving a value for its S point other than the embedding E point (see section 2). Thus, a temporally dependent complement clause will be entered in whichever temporal file its embedding clause is entered.

Constructions such as (31b) and (32b) are also irrelevant, because the difference between universal and existential quantifiers with respect to their binding possibilities is orthogonal to the issue in question. Our discussion will thus be restricted to sequences such as (31a), with cross-sentential binding by an existential quantifier, and (32a), with binding by an existential quantifier into a temporally independent clause.

5.2.1. Cross-Sentential Binding by Existential Quantifiers

At first sight, a sequence such as (13), repeated below in (34), clearly shows that Q-binding across files is possible. The pronoun of the sentence *And, boy, he was tall,* which is part of the Utterance Time File, is apparently bound by the quantifier *someone*, whose sentence was entered in the Narrative File, as represented in (19) and repeated below as (35). At close inspection, however, it is not clear that this is the case. Since the updated sentence *I was walking down the street the other day when all of a sudden someone came up to me* of the Utterance Time File contains a copy of the quantifier entered in the Narrative Time File, the pronoun of the sentence *And, boy, he was tall* could in principle be bound by either quantifier.

(34) Listen to this: I'm walking down the street the other day when all of a sudden someone$_i$ comes up to me. And, boy, he$_i$ was tall! He asks me what time it is. Before I even answer him, he steals my wallet. I'll never forget this experience!

(35)

Utterance Time File Listen to this:	*Narrative File*
I *was* walking down the street the other day when all of a sudden someone *came* up to me.	I'm walking down the street the other day when all of a sudden someone comes up to me.
And, boy, he was tall!	
He$_i$ *asked* me what time it *was*. Before I even *answered* him, he *stole* my wallet.	He$_i$ asks me what time it is. Before I even answer him, he steals my wallet.
I'll never forget this experience!	

The crucial test case, therefore, involves the quantifier in the Utterance Time File and the pronoun in the Narrative File. Given that information to be updated flows from the subordinate to the superordinate file, but not *vice versa*, a quantifier in the Utterance Time File will not be copied into the Narrative File. The contrast between (36) and (37), respectively represented in (38) and (39), seems to bear on this issue:

(36) Listen to this! Someone$_i$ told me a very scary story: He$_i$ was walking down the street the other day when all of a sudden a vampire came up to him$_i$. The vampire asked him$_i$ what time it was. But before he$_i$ even answered, the vampire started sucking his$_i$ neck. Can you believe it?!

(37) ??Listen to this! Someone$_i$ told me a very scary story: He$_i$ is walking down the street the other day when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. But before he$_i$ even answers, the vampire starts sucking his$_i$ neck. Can you believe it?!

(38)

Utterance Time File

Listen to this! Someone$_i$ told me a very scary story. He$_i$ was walking down the street the other day when all of a sudden a vampire came up to him$_i$. The vampire asked him$_i$ what time it was. But before he$_i$ even answered, the vampire started sucking his$_i$ neck. Can you believe it?

---

(39)

Utterance Time File

Listen to this! Someone$_i$ told me a very scary story.

He$_i$ *was* walking down the street the other day when all of a sudden a vampire *came* up to him$_i$. The vampire *asked* him$_i$ what time it *was*. But before he$_i$ even *answered*, the vampire *started* sucking his$_i$ neck.

Can you believe it?

Narrative File

He$_i$ is walking down the street the other day when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. But before he$_i$ even answers, the vampire starts sucking his$_i$ neck.

In both sequences of (36) and (37), the first sentence signals that there may be a narrative in the following stretch of discourse. In (36), the unlinked S points of all remaining sentences are compatible with the utterance time value. Thus, the computation proceeds within the Utterance Time File in accordance with (16a), as represented in (38). Thus, cross-sentential binding in this sequence is not different in the relevant respects from cross-sentential binding in (31a).

(37) is more interesting, though. The S point of the sentence *He is walking down the street the other day when all of a sudden a vampire comes up to him* is incompatible with the utterance time value. Thus, in accordance with (16a), the Narrative File is opened, and this and the two following sentences are entered therein, as represented in (39). Finally, the last sentence activates the Utterance Time File, closing the Narrative File. The sequence in (37) is, nevertheless, not well-formed.

Notice that we cannot ascribe the marginality of (37) to a violation of the

USPIC. Both the Utterance Time File and the Narrative File in (39) have a single value for their unlinked S points. Nor is the restriction in terms of coindexation across temporal files, as is shown by the fact that in (40) below, represented in (41), coreference between *John* in the Utterance Time File and *he* in the Narrative File is possible:

(40) Listen to this! Someone told me a very scary story about John$_i$: He$_i$ is walking down the street the other day when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it was. But before he$_i$ even answered, the vampire started sucking his$_i$ neck. Can you believe it?!

(41)

Utterance Time File

Listen to this! Someone told me a very scary story about John$_i$.

He$_i$ *was* walking down the street the other day when all of a sudden a vampire *came* up to him$_i$. The vampire *asked* him$_i$ what time it *was*. But before he$_i$ even *answered*, the vampire *started* sucking his$_i$ neck.

Can you believe it?

Narrative File

He$_i$ is walking down the street the other day when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. But before he$_i$ even answers, the vampire starts sucking his$_i$ neck.

Therefore, it must be the case that in (39), it is the binding of the pronoun in the Narrative File by the quantifier in the Utterance Time File that is problematic. If this is correct, the well-formedness of (34) is due to the fact that the pronoun is actually bound by the copied quantifier within the Utterance Time File, and not by the quantifier in the Narrative File, as represented in (35). I postpone to section 5.2.3 below the discussion of why such a restriction on Q-binding should hold. Before that, let us examine the behavior of interclausal Q-binding with respect to binding across files.

5.2.2. Binding into Temporally Independent Clauses

As mentioned above, binding into temporally independent clauses is possible with existential quantifiers, as illustrated by (42) below. Interestingly, if the complement clause has a value for its S point different than the value of the embedding clause, Q-binding is not felicitous, as exemplified by the first sentence of (43):[7]

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[7] I am grateful to Ellen Thompson (p.c.) for having brought this piece of data to my attention.

(42) Someone$_i$ told me that he$_i$ is leaving next week.

(43) ??Someone$_i$ told me that the other day he$_i$ is walking down the street when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. But before he$_i$ even answers, the vampire starts sucking his$_i$ neck. Can you believe it?!

If subordinate clauses may be entered in a different temporal file than their embedding clauses, as proposed in section 5.2.1, the discourse representation of (43) is as in (44):

(44)

Utterance Time File	*Narrative File*
Someone$_i$ told me that	
the other day he$_i$ *was* walking down the street when all of a sudden a vampire *came* up to him$_i$. The vampire *asked* him$_i$ what time it *was*. But before he$_i$ even *answered*, the vampire *started* sucking his$_i$ neck.	The other day he$_i$ is walking down the street when all of a sudden a vampire comes up to him$_i$. The vampire asks him$_i$ what time it is. But before he$_i$ even answers, the vampire starts sucking his$_i$ neck.
Can you believe it?	

Both temporal files of (44) satisfy the USPIC. This seems to suggest that the marginality of (43), as in the case of the cross-sentential binding in (39), has to do with binding across files: the discourse representation of (43), represented in (44), has a pronoun in the Narrative File bound by a quantifier in the Utterance Time File. Let us refer to this restriction as the Unique Temporal File Condition:

(45) *Unique Temporal File Condition (UTFC)*
A quantifier can bind a pronoun only if they are within the same temporal file.

The question that immediately arises is why a constraint such as the UTFC should hold. I propose that this restriction is directly related to the fact that quantification in natural language is relativized with respect to a context, as discussed in the next section.

5.2.3. Deriving the Unique Temporal File Condition

As is well known, sentences involving quantification are not interpreted in an absolute sense. (46) below, for instance, does not mean that every human in the universe died, which is false. Rather, the domain taken to be relevant for the

range of the quantifier is defined by the common ground established by the here-and-now interaction between speaker and hearer. Thus, a sentence such as (46) uttered by the same speaker to the same hearer on different occasions may provide different domains for the quantifier.

(46) Everyone died.

The intuition behind these well-known observations is that the context that establishes a domain for a quantifier is somehow related to the moment at which a particular sentence is uttered. Borrowing from Hornstein's (1990) system, we could formalize this intuition by taking an unlinked S point in any tense structure to anchor a context in the discourse. In other words, an unlinked S point, by virtue of being deictic, contributes to defining a domain over which a quantifier ranges.

Assuming this to be correct, we have a straightforward account of the contrast between Q-binding within and across temporal files. Let us first consider Q-binding within a temporal file, as in (38), for instance. Given that there is a single value for the unlinked S points within the Utterance Time File, there is also a single context for the range of the quantifier. Therefore, binding of the pronoun(s) is possible. On the other hand, binding of the pronouns in the Narrative File by a quantifier in the Utterance Time File, as exemplified in (39) and (44), is not possible. Here, the existential quantifier is simultaneously ranging over two distinct domains, defined by two distinct values for the unlinked S points: the domain associated with the utterance time value and the domain associated with the narrative value.

6. Conclusion

This paper has provided evidence for a discourse representation formulated in terms of temporal files: a superordinate Utterance Time File and a subordinate Narrative File. Such a discourse representation allows us to account for the restrictions on tense sequencing in narratives (cf. (8) *vs.* (9)), to analyze well-formed constructions where such restrictions are apparently overridden (cf. (13)) and to represent the fact that narratives seem to be always temporally evaluated with respect to the utterance time, even when they have a deictic temporal reference of their own (cf. 15)). In addition, the analysis pursued here allowed us to account for apparent violations of Hornstein's (1990) Constraint on Derived Tense Structures (cf. (29)) and for restrictions on cross-sentential and interclausal binding by existential quantifiers (cf. (36) *vs.* (37) and (42) *vs.* (43)).

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Argument Structure Template and Formation of English Deverbal Adjectives*

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1 Background

In order to account for the derivation of the so-called adjectival passives such as (1) and (2), Bresnan (1982) proposed a conversion analysis of (3) which derives the adjectives from the past participle forms of their base verbs.

1 a. a *broken* vase b. *painted* walls c. an *established* custom
d. *crushed* cans e. *typed* letters f. a *respected* statesman

2 a. *wilted* lettuce b. *fallen* leaves c. a *collapsed* tent
d. *swollen* feet e. a *rusted* screen f. *vanished* civilizations
g. *elapsed* time h. *grown* men i. a *risen* Christ
j. *sprouted* wheat k. an *undescended* testicle

3 Participle-Adjective Conversion
Morphological Change: V[Part] ---> [V[Part]]A
Operation on Lexical Form:
P(...(SUBJ)...) ---> STATE-OF P(...(SUBJ)...)
Condition: SUBJ = theme of P

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