Reflexives: Escaping Exemption via Domain Reshuffling

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Proceedings of the 12th International Conference on
Head-Driven Phrase Structure Grammar
Department of Informatics, University of Lisbon
Stefan Müller (Editor)
2005
CSLI Publications
pages 467–481
http://csli-publications.stanford.edu/HPSG/2005
Abstract
In this paper we argue that at least for some languages, when there are suitable o-commanders of its selectional domain, a reflexive in the bottom of its obliqueness hierarchy escapes exemption via a reshuffling of its local binding domain. The outcome of such reshuffling is that the local domain extends to include o-commanders of the reflexive in the subcategorization domain immediately upstairs, that is in the domain whose head predicator directly subcategorizes the domain headed by the predicator directly subcategorizing the reflexive.

1 Introduction

Anaphors depend on other expressions, their antecedents, to be interpreted, and the set of admissible antecedents for a given anaphor has been shown to comply with parameterized cross-language invariants, which are captured in generalizations usually known under the designation of binding principles. These invariants permit to group together anaphors that, in the same contexts of occurrence, have the same set of admissible antecedents, thus inducing a partition of anaphors according to their anaphoric capacity.

1.1 Reflexives

Reflexives belong to one of such classes of anaphors. They comply with the generalization captured in binding Principle A, if they are of a short-distance nature — like the English *himself* —, or with binding Principle Z, if they are of a long-distance sort — like the Portuguese *ele próprio*:

(1)  Principle A: A short-distance reflexive is locally o-bound.
Principle Z: A long-distance reflexive is o-bound.

The definition of Principle A above is an abbreviated rendering of the empirical generalization that admissible antecedents of a short-distance (SD-) reflexive are the expressions that are immediately, or directly, selected by the predicator immediately selecting the reflexive and have a grammatical function that is less oblique than the grammatical function of the reflexive —
where, for instance, Subject is less oblique than Object or Indirect Object, Object is less oblique than Indirect Object, etc.

This verbose rendering of Principle A is obtained when the auxiliary notions used in the definitions above are unfold: $A \circ$-binds $B$ abbreviates that $A$ and $B$ are coindexed and $A \circ$-commands $B$. $A$ and $B$ are coindexed is an abbreviation for the fact that the expression that is the anaphor, $A$ resp. $B$, takes the other, $B$ resp. $A$, as its antecedent. $A \circ$-commands $B$ abbreviates that $A$ is less oblique than $B$ if they are selected by the same predicator, or $A \circ$-commands some $X$ that subcategorizes for $Z$ or is a projection of $Z$. These relations are transitive and are specialized to a "local" version when $A$ and $B$ are immediately, or directly, selected by the same predicator (cf. Pollard and Sag, 1994).

The following example illustrates these constraints at work for SD-reflexives:

(2) The judge$_j$ thinks [ that [Kim's$_k$ lawyer$_l$]$_l$ described himself$_*j/*k/*l/*w$ to the witness$_w$ ].

The expressions the judge and Kim do not qualify as admissible antecedents of himself as they are not immediately selected by the predicator described, that immediately selects the reflexive: the judge is not selected by described; Kim is selected by this predicator but not immediately, given it is part of its Subject, i.e. part of Kim's lawyer. And the witness, though being immediately selected by described, is ruled out from being an admissible antecedent for it because is more oblique than the reflexive.

The definition of Principle Z, in turn, can be seen as resulting from the definition of Principle A by removing the locality restriction from it. Accordingly, expressions outside the local binding domain of a long-distance (LD-) reflexive, but selected by a predicator that mediately selects the constituent headed by the predicator directly selecting this reflexive are admissible antecedents of it. The critical difference between LD- and SD-reflexives in terms of their anaphoric capacity is captured by the contrast between the examples in (2) and (3). In the example below, from Portuguese, the Subject of the main clause, which is outside the local binding domain of the reflexive ele próprio, is also an admissible antecedent for it:

(3) O juiz$_j$ pensa [ que [o advogado do Bruno$_k$]$_l$ gosta dele próprio$_*j/*k/*l/*]$.

the judge$_j$ thinks [ that [ the lawyer of _the Bruno$_k$]$_l$ likes of _ELE PRÓPRIO$_*j/*k/*l/*]$.

The judge$_j$ thinks that Bruno's$_k$ lawyer$_l$ likes him$_j$/himself$_l$. 

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1.2 Exemption

In the research on binding principles, in general, and on the anaphoric capacity of reflexives, in particular, an important breakthrough was the realization that, in a well-defined, specific set of occurrences, reflexives may be exempt from following their typical anaphoric binding invariant, as in all their other remaining occurrences, and captured in Principles A and Z. Such notion of exemption is a key contribution of Pollard and Sag (1992, 1994), developed on the basis of data concerning short-distance reflexives, and subsequently shown by Branco and Marrafa (1999) and Branco (2000) to extend also to long-distance reflexives. It can be rendered as follows: LD-reflexives, resp. SD-reflexives, are exempt from their typical anaphoric binding discipline when they occur in the beginning of their o-command hierarchy, resp. of their local o-command hierarchy (for the purpose of ease of reference, let us call such positions o-bottom positions).

The following two examples illustrate reflexives in o-bottom positions and the associated exemption effect:

(4) a. John_i was going to get even with Mary. That picture of himself_i in the paper would really annoy her, as would the other stunts he had planned.

b. O Bruno_i estava contente. A foto que ele próprio_i tirou apareceu na primeira página do jornal.

the Bruno_i was happy. The picture that ELE PRÓPRIO_i took appeared in the first page of the newspaper

Bruno_i was happy. The picture he_i took appeared in the newspaper's front page.

In (4)a. (=Pollard and Sag, 1994:p.270,(94)), the SD-reflexive himself is the only argument of picture, the (nominal) predicator selecting it, and therefore in an o-bottom position; in (4)b., the LD-reflexive ele próprio is also the only argument of foto, which heads the Subject of the main clause, and henceforth is also in an o-bottom position. In both cases, the reflexives do not display their typical anaphoric binding discipline, and take antecedents that are ruled out by binding principles in (1).

Besides their specific anaphoric binding discipline captured by the definitions in (1), as part of their intrinsic anaphoric capacity, an overarching interpretability condition is admittedly in force in natural languages requiring the “meaningful” anchoring of reflexives to antecedents. When reflexives are in o-bottom positions, an o-commander is not available to function as antecedent and anchor their interpretation. Hence, the specific binding constraints, viz. Principle A and Z, cannot be satisfied in a “meaningful” way and the general interpretability requirement may supervene them. As a consequence, in cases like (4), displaying so-called exemption, o-bottom
reflexives appear to escape their specific binding regime to comply simply with such general requirement and their interpretability be rescued.

In order to accommodate the possibility of exemption from their typical binding discipline in o-bottom positions, the binding principles for reflexives have thus been more accurately rendered in the following extended definition:

(5) Principle A: A locally o-commanded short-distance reflexive is locally o-bound.

Principle Z: An o-commanded long-distance reflexive is o-bound.

1.3 The issue

Since the notion of exemption was established, an interesting issue that calls for further research is whether o-bottom reflexives, while being exempt from their typical anaphoric discipline, might still display any substantial grammatical regularity with respect to the distribution of their admissible antecedents: In short, whether some other binding invariant might still come into play for reflexives exempt from their core anaphoric capacity, as this is captured by the binding principles above.

A thorough scrutiny of this issue faced certain initial methodological obstacles among which is the fact that the distribution of reflexives in the most studied language, English, is restricted by its non-nominative case marking, which hampers the testing of their anaphoric behavior in exempt sentential Subject positions. Moreover, the data available for exempt reflexives in English picture NPs and nominal predication structures in general seemed, in turn, to indicate that the possible factors impinging on the anaphoric capacity of o-bottom reflexives to be more of a soft, discourse-based character (Zribi-Hertz, 1989; Golde, 1999), than of the hard, grammatical nature of binding principles.

Against this background, my goal in this paper is to explore new data contributing new insights concerning this issue. By fully exploring the account briefly hinted at in Branco (2005), I argue that the data presented and discussed below are better explained as supporting the view that o-bottom reflexives may obey a hard, grammatical anaphoric discipline.

In more concrete terms, my claim is that, at least for some languages, o-bottom reflexives are not exempt but keep being ruled by their corresponding binding principle. This holds provided that a very simple hypothesis is entertained: For such reflexives, in the bottom of their obliqueness hierarchy, the relevant local domain reshuffles to include the o-commanders in the selectional domain immediately upstairs, that is the selectional domain which immediately dominates the selectional domain in whose o-bottom position the reflexive occurs.
In the next Section 2, I present data concerning the Portuguese third person null Subject that help to uncover its anaphoric properties. In opposition to a widespread and unchallenged assumption that takes this null Subject as a pronoun (cf., among many others, Barbosa, 1995, Mateus et al., 2003), my claim is that this null anaphor is actually not a pronoun but rather a reflexive. In particular, and more importantly for the point of the present paper, this null anaphor is an o-bottom reflexive inducing the reshuffling of its local binding domain.

In Section 3, I discuss data concerning an overt SD-reflexive in o-bottom positions from another language, viz. the German reflexive sich, and argue that this reflexive also induces local binding domain reshuffling.

Finally, in the last Section 4, I summarize the discussion and claims presented in this paper, and underline relevant research lines opened by the results obtained here.

2 Portuguese null subjects

The data to be analyzed in this Section are from Portuguese anaphors occurring in o-bottom positions for the purpose of the anaphoric binding constraints on reflexives. They critically involve the phonetically null third person anaphor occurring in the Subject position of finite sentences.

Null Subjects in Portuguese, and in other so-called pro-drop languages, have been under intensive analysis in the literature. The focus here, however, is not on the discussion of the possible factors licensing their occurrence, but rather on the much less explored research path of thoroughly inspecting their anaphoric capacity and the binding discipline which they comply with.

2.1 Apparent non-locality

A null Subject may pick an antecedent outside its local domain, as illustrated in the example below:

(6) O Bruno_i pensa [ que ∅_i será convidado para a festa ].
the Bruno_i thinks [ that ∅_i will_be invited to the party ]
Bruno_i thinks that he_i will be invited to the party.

In this respect, it displays an anaphoric behavior similar to the behavior of overt pronouns, as can be seen from the comparison between (6) and (7):

(7) O Bruno_i pensa [ que ele_i será convidado para a festa ].
the Bruno_i thinks [ that he_i will_be invited to the party ]
Bruno_i thinks that he_i will be invited to the party.
This comparison has been iterated in the literature and has been the empirical basis supporting the assumption that null Subjects are pronouns, thus following the corresponding anaphoric binding invariant, collected in binding Principle B:

(6)  **Principle B:** A pronoun is locally $o$-free.

Nevertheless, from the perspective of its anaphoric binding capacity, the possibility of picking an antecedent outside its local domain is the only feature that a null Subject apparently share with pronominals. As a matter of fact, when going through the critical criteria to ascertain that an anaphor is a reflexive, all of them are met by this null anaphor in the Subject position. In what follows, such criteria are going to be positively tested.

### 2.2  Locality regained

First, the null anaphor does obey a locality restriction, though not of the usual kind in core cases of non $o$-bottom reflexives:

(9)  

\[ \text{Ana}_i \text{ pensa [ que a Rita}_j \text{ me disse [ que } \emptyset*_{i/j} \text{ será convidada para a festa ]].} \]

the Ana$_i$ thinks [ that the Rita$_j$ to me told [ that } \emptyset*_{i/j} \text{ will_be invited to the party ]}]  

Ana$_i$ thinks that Rita$_j$ told me that she$_{i/j}$ will be invited to the party.

In (9), a Rita can be an antecedent of the null anaphor, but a Ana cannot. While a Rita is inside the local domain circumscribed by the verb that immediately selects the clause where the null anaphor is, a Ana is outside that local domain. The anaphor cannot thus reach beyond the immediately upstairs domain for admissible antecedents, as a pronoun can do, in a construction forming a minimal pair with (9):

(10)  

\[ \text{Ana}_i \text{ pensa [ que a Rita}_j \text{ me disse [ que ela}_i/j \text{ será convidada para a festa ]].} \]

the Ana$_i$ thinks [ that the Rita$_j$ to me told [ that she$_{i/j} \text{ will_be invited to the party } \text{ ]}]  

Ana$_i$ thinks that Rita$_j$ told me that she$_{i/j}$ will be invited to the party.

Such an impossibility of reaching beyond the immediately upstairs domain holds, even more clearly, also in constructions where there is no admissible antecedent intervening between the null anaphor and the expressions outside that upstairs domain:
(11)  A Ana_i pensa [ que nenhuma revista anunciará [ que ela/*∅_i será convidada para a festa ] ].

the Ana_i thinks [ that no magazine will_announce [ that she/*∅_i will_be invited to the party ] ]

Ana_i thinks that no magazine will announce that she_i will be invited to the party.

Contrasts like the one in (9) or (11), indicating that the admissible antecedents of the o-bottom null anaphor are to be found in the local domain immediately upstairs can be multiplied at ease with different syntactic structures.

In (12), the null anaphor is the Subject of the embedded clause in the adverbial clause. It cannot have o Bruno as antecedent, which lies outside the local domain immediately upstairs, circumscribed by the predicator heading the adverbial clause:

(12)  O Bruno não vai às festas [ quando a Ana decide [ que ele/*∅_i será o convidado de honra ] ].

the Bruno not goes to the parti es [ when the Ana decides [ that he/*∅_i will_be the guest of honor ] ]

Bruno doesn't go to parties when Ana decides that he_i will be the guest of honor.

In (13), the null anaphor is in the Subject position of the relative clause (the pied piping of the preposition de, subcategorized for by the verb gostar, hampers this clause to be alternatively interpreted as a Subject relative as well). It cannot have a Ana as antecedent, which lies outside the local (nominal) domain immediately upstairs.

(13)  O Bruno apresentou a Ana_i [ ao amigo [ de quem ela/*∅_i gosta ] ].

the Bruno introduced the Ana_i [ to_the friend [ of who she/*∅_i likes ] ]

Bruno introduced Ana_i to the friend who she_i likes.

2.3  Recess opacity

Second, like what happens to overt reflexives, recesses in the geometry of grammatical representation are opaque to the anaphoric capacity of the null anaphors.
As the example above shows, *o Bruno is not an admissible antecedent of *si próprio as an expression cannot not o-command the overt reflexive to qualify as its antecedent:

(14)  [ O advogado do Bruno_i ]_j apresentou-se a si próprio_*i/j .
[ the lawyer of_the Bruno_i ]_j introduced-SE SI PRÓPRIO_*i/j .
*Bruno's_i lawyer_j introduced himself_j.

This pattern is also observed in constructions with null Subjects, even if the antecedent candidate is inside of arguments in the domain immediately upstairs:

(15)  * [ A namorada do Bruno_i ] disse que Ø_i será convidado para a festa.
[ the girlfriend of_the Bruno_i ] said that Ø_i will_be invited to the party
Bruno_i's girlfriend said that he_*i will be invited to the party.

2.4 Directionality

Third, given their admissible antecedents cannot not o-command them, an overt reflexives follows also a directionality constraint. This is exemplified below, where the Direct Object can be an antecedent of the more oblique Indirect Object reflexive, as exemplified in (a.), but not vice-versa, as exemplified in (b.):

(16)  a. O Bruno descreveu a Ana_i a si própria_i.
the Bruno described the Ana_i to SI PRÓPRIA_i
Bruno described Ana_i to herself_i.

b. O Bruno descreveu(-se a) si própria_*i à Ana_i.
the Bruno described(- SE to) SI PRÓPRIA_*i to the Ana_i
Bruno described herself_*i to Ana_i.

Likewise, admissible antecedents cannot not o-command it.

In the example below, the Direct Object complement *a Ana is less oblique than the Oblique complement introduced by the preposition *de, the embedded clause containing the null anaphor, and a fortiori an o-commander of this anaphor itself. The anaphoric relation is possible here:
(17) O Bruno informou a Ana_i de [ que ∅_i será convidada para a festa ].
the Bruno informed the Ana_i of [ that ∅_i will_be invited to the party ]

Bruno informed Ana_i that she_i will be invited to the party.

However, in the example below, the Oblique complement a Ana is o-commanded by the Direct Object complement, which is the embedded clause containing the null anaphor, and a fortiori is not an o-commander of this anaphor. The anaphoric relation, in turn, is not possible here:

(18) O Bruno combinou com a Ana_i que ela/*∅_i vai telefonar-lhe antes da festa.
the Bruno planned with the Ana_i that she/*∅_i goes to_call-him before of the party

Bruno planned with Ana_i for her_i to call him before the party.

2.5 Split antecedents

Fourth, Portuguese long-distance reflexives tend to be slightly less resistant to split antecedents than their cousin short-distance reflexives. Compare (19)(a). to (16) above:

(19) a. * O Bruno_i descreveu a Ana_j a si próprios_i+j.
the Bruno described the Ana to SI PRÓPRIOS_i+j
Bruno_i described Ana_j to themselves_i+j.

b. ? O Bruno_i descreveu a Ana_j a eles próprios_i+j.
the Bruno_i described the Ana_j to ELES PRÓPRIOS_i+j
Bruno_i described Ana_j to themselves_i+j.

In what concerns split antecedents, the null anaphor seems to go along more with long-distance reflexives than with short-distance ones:

(20) ? O Bruno_i informou a Ana_j de que ∅_i+j serão convidados para a festa.
the Bruno_i informed the Ana_j of that ∅_i+j will_be invited to the party
Bruno informed Ana_i that they_i+j will be invited to the party.
2.6 Extra-sentential anaphora

Fifth, a pronoun admits deictic usage (represented with the index \( x \) in the example below) and anaphoric resolution to antecedents outside its sentence, but a reflexive does not:

(21) O Bruno_i estava contente. A Ana disse que ela gosta de *si próprio/dele_i/x.
    the Bruno_i was happy. the Ana said that she likes of *SI PRÓPRIO/of_him_i/x.
    Bruno_i was happy. Ana said she likes him_i/x.

The null anaphor patterns with the reflexives in this respect:

(22) O Bruno_i estava contente. A Ana decidiu que ∅_i/x será o próximo convidado de honra.
    the Bruno_i was happy. the Ana decided that ∅_i/x will_be the next guest of honor.
    Bruno_i was happy. Ana decide he_i/x will be the next guest of honor.

2.7 Exemption

Finally, like overt reflexives, the null anaphor may be exempt from its typical binding discipline.

The example below illustrate the exempt behavior of the LD-reflexive ele próprio. When in o-bottom position, it can entertain cross-sentential anaphoric links:¹

(23) A: Como é que o Bruno_i resolveu o problema?
    B: Ele próprio_i foi falar com o director.
    A: How did Bruno_i solve the problem?
    B: He_i talked with the manager.

The exempt behavior of the null anaphor is observed when local domain reshuffling is not available, that is when no upstairs selectional domain exists.

¹ Note that the Portuguese SD-reflexive si próprio does not occur in nominative positions, so it cannot be checked in the contexts relevant for the point discussed in this section.
and the null anaphor is in absolute o-bottom position. In such cases, the null
anaphor may accept extra-sentential antecedents:

(24) A: O que é que o Bruno_i fez ontem?  
    B: ∅_i Foi ao cinema.  
    A: What did Bruno_i do yesterday?  
    B: He_i went to the movies.

This construction should be contrasted with the data in (22), where the null
anaphor is not in absolute o-bottom position and exemption is therefore not
an option.

2.8 Analysis

The empirical evidence worked out above can be straightforwardly
explained if one simply assumes that: On the one hand, the Portuguese null
anaphor is a reflexive (which, due to reasons possibly orthogonal to its
anaphoric capacity, occurs in Subject position); and in the other hand, given
it occurs in Subject positions, i.e. in o-bottom positions of local obliqueness
hierarchies, if it is not in the matrix clause, its local domain is reshuffled to
include the o-commanders in the selectional domain upstairs that
immediately dominates the selection domain where it directly occurs.

Therefore, in order to account for the data below, we just need to
minimally expand our set of theoretical constructs with the addition of the
following very simple hypothesis: the reshuffling of local binding domains
for o-bottom reflexives is possible (and it is possibly a parameterizable
feature across languages).

All the data below can then be straightforwardly understood by simply:
(i) classifying the Portuguese null anaphor as a reflexive;
(ii) assuming that Portuguese allows local domain reshuffling.

3 German o-bottom reflexives

In order to reinforce its empirical strength, this analysis calls to be further
explored into several directions. The most critical ones are certainly
cconcerned with how it possibly extends to:
(i) other languages;
(ii) reflexives of a more "usual" kind: overt reflexives that may occur
in non Subject positions as well.

Data indicating that local domain reshuffling is possible in other
languages, from other language family, with overt reflexives in non Subject
position, can be obtained with examples involving the German short-distance reflexive *sich*.

First, when in an o-bottom position (which however is not a clausal Subject position), admissible antecedents for *sich* can be found only in the immediately upstairs local domain (Tibor Kiss, p.c.):


   Gernot_i thought that [ Hans_j the Ulrich [ a picture of SICH_i/j gave ]

   *Gernot_i thought that Hans_j gave Ulrich a picture of himself_j.*

Second, even in a reshuffled local domain, directionality of anaphoric binding for reflexives is complied with, as a non o-commander in the domain immediately upstairs is not an admissible antecedent (Kiss (2001):(8)a):

(26) Ich überreichte dem Ulrich_i ein Buch über sich_i.

   I gave the Ulrich a book about SICH_i

   *I gave a book about himself_i to Ulrich_i.*

Third, even in a reshuffled local domain, recesses in grammatical geometry are opaque to the anaphoric capacity of *sich*, as a nominal inside of an o-commanding nominal is not an admissible antecedent for it (Manfred Sailer, p.c.):


   Jan thought that [ the mother of Hans_i ] the Carl [ a picture of SICH_i gave ]

   *Jan thought that Hans'_i mother gave Ulrich a picture of himself_i.*

Accordingly, the above data on the German reflexive *sich* fall into place with just the simple hypothesis that the German permits local binding domain reshuffling when reflexives occur in o-bottom positions of embedded predication domains.

In our view, this is an improvement with respect to the account proposed in Kiss (2001), as it dispenses with an extra notion of o-binding (e.g. minimal o-binding), with a revised version of Principle A — which turns out to break the symmetry with Principle B and to be somewhat sloppy —, and above all with the setting of parameter values in a complex parameter space (2x3) for which almost all combinations of values are supported by very sparse data in the literature or are not empirically attested at all.
4 Conclusions and outlook

A major result contributed by this paper is that the local binding domain of reflexives can be reshuffled.

The data worked out in the present paper support the claim that, at least in Portuguese and German, though in o-bottom positions, when a reshuffling of their local domains is possible, reflexives turn out not to be exempt from their typical anaphoric binding discipline, as this is captured in the definition of binding Principles A and Z. In such circumstances, the reflexives escape exemption via a reshuffling of their local domain.

The outcome of such reshuffling is that, for a reflexive in the bottom of the obliqueness hierarchy induced by the predicator directly subcategorizing it, its local binding domain reshuffles to include its o-commanders in the subcategorization domain immediately upstairs (if such upstairs domain exists, of course). The subcategorization domain immediately upstairs is the domain whose head predicator directly subcategorizes the domain headed by the predicator directly subcategorizing the reflexive, and the upstairs o-commanders entering the reshuffled local domain of the reflexive are the arguments in the upstairs domain that are less oblique than the domain where the reflexive immediately occurs.

Another important result contributed by the present paper concerns the anaphoric capacity of Portuguese third person null Subjects in finite clauses. In the literature, the pervasive and ever unchallenged view is that, with respect to binding classes of anaphors, this anaphor is to be classified as a null pronoun. In this paper, we showed that this view is not supported by the scrutiny of the anaphoric capacity of this null expression. Not only its anaphoric behavior does not pattern with the anaphoric behavior of pronouns, as instead it satisfies all the tests that can be made in order to check its reflexive nature. The Portuguese third person null Subject in finite clauses was thus shown to be a reflexive.

As the data supporting the result that Portuguese null Subjects are reflexives may turn out to be replicated with respect to null Subjects also in other languages, it may be a future key contribution to eventually show that the long studied null anaphor, typically licensed by strong verbal morphology and also known as little pro in some grammar frameworks, is not a pronoun after all, but rather a reflexive.

Acknowledgments

I am very grateful to Tibor Kiss and Manfred Sailer for their help with the German data. I am the sole responsible for remaining errors.
References


