

On "deep and surface anaphora"

Hankamer and Sag (1976) argue for a distinction between deep and surface anaphora. Their conclusions were challenged by Williams (1977) who presents arguments against this distinction. Sag (1979) summarizes four conclusions of his previous paper as such:

"(1) Deep anaphors are not derived transformationally, but are present in underlying structure; surface anaphors are delivered by deletion. (6.1.1).

(2) Deep anaphors must represent coherent semantic units; surface anaphors need not. (6.1.5-6).

(3) "Surface anaphora requires superficial identity of structure between the antecedent segment and the segment to be anaphorized. deep anaphora does not." (6.1.5.6).

(4) Deep anaphors can be pragmatically controlled; surface anaphors cannot. (6.1.2-3)" (1979:153).

Sag (1979) maintains that Williams (1977) "presented at most a partial refutation of H& S. The evidence cited by H& S in support of (3) and (4) remains unchallenged" (1979:156).

In this paper, I will present some facts from Brazilian Portuguese that I believe will challenge the distinction between deep and surface anaphora.

In Portuguese, there are some words which occur before a noun, as determiners, as in (1):

(1) Eu quero este livro. 'I want this book

In such position, we can have demonstratives as well as articles, indefinites, possessives, and some other classes which I discuss elsewhere (see Pontes, 1976, 1977, 1979).

A determiner can also occur without a noun, as in (2):

(2) João escolheu este livro, eu quero aquele.

'John has chosen this book, I want that one.'

Notice that this phenomenon is similar to what in English is known as 'one substitution', with the difference that in Portuguese there is no substitution, but deletion of the noun (avoiding thus repetition of the preceding noun).

Sag treats "one substitution" as a case of deep anaphora. In Portuguese, as we do not have a pronoun like "one", the problem is more complex. Two possible analyses suggest themselves. One is to consider that this is a case of deletion by identity of sense (since there is no coreference between the noun *livro* 'book' which appears in the surface structure of (2) and the deleted noun which, if it occurred, would appear after 'aquele' at the end of sentence (2). According to this analysis the underlying structure of (2) would correspond roughly to (3).

(3) João escolheu este livro, eu quero aquele livro.

'John has chosen this book, I want that book'.

This hypothesis is supported by the fact that it is possible to hear a sentence like (3), as alternative to (2), when the speaker wants to be more explicit, or emphatic. The deletion can then be considered to be optional.

The possibility of noun deletion exists provided that there is a determiner or an adjective to remain in the NP. In (4), we see two NPs, in which the determiner remains, and the noun has been deleted by identity with the one which appeared before in the sentence.

(4) João escolheu um livro, eu escolhi outro.

'John has chosen one book, I have chosen another (one)'.

João quer todos os livros, eu só quero alguns.

'John wants all books, I only want some (of them).'

In (5) we also have noun deletion but more than one det. is present:

(5) João quer um livro, eu quero algum outro.

John wants one book, I want another.

It is also possible for a det to occur followed by an adjective as in (6), or for an adjective to occur alone without the determiner, as in (7):

(6) João quer um livro vermelho, eu quero um azul.

John wants a red book, I want a blue (one)

(7) João prefere roupa azul, eu prefiro vermelha.

John prefers blue clothes, I prefer red clothes.

Another possibility is for a PP or a relative (restrictive) clause to occur in this position:

(8) Paulo prefere o livro de Maria, eu prefiro o de Marcos.

Paul prefers the book of Mary, I prefer the (one) of Mark.

(9) Paulo prefere roupa de verão, eu de inverno.

Paulo prefers summer clothes, I prefer winter clothes.

(10) Paulo escolheu o livro que está em cima da mesa, eu o que está em baixo da mesa.

Paul has chosen the book which is on the table, I have chosen the (one) which is below the table.

(11) Paulo prefere roupa que está na moda, eu prefiro a que não está.

Paul prefers clothes which are on fashion, I prefer the (ones) which are not.

There is however a restriction as far as (11) is concerned: it seems that the sentence is not good without the article preceding the relative. Perhaps because without the article the sentence is superficially similar to an embedded sentence. See (12).

(12) *Paulo prefere roupa que está na moda, eu prefiro que não está.

But examples (7) and (9) illustrates the possibility of deleting the noun, even if no det. remains.

Let us now examine this phenomenon in relation to Sag's conclusions. According to the first criterion, this must be a case of surface anaphora, since there is deletion of the noun. Notice, nevertheless, that, as I have pointed out, this phenomenon is very similar to what is known in English as 'one substitution' and Sag considers 'one substitution' as a case of deep anaphora.

As to the second criterion, that deep anaphors must represent coherent semantic units, the Portuguese deletion conforms to it: It is usually a noun that is deleted but when it occurs followed by an adjective it is possible to delete both.

(12) Maria comprou um carro vermelho, eu também quero um.

Mary has bought a red car. I want one too.

Larger units can also be deleted as in (13) and (14).

(13) Maria quer um carro que tem pneus novos, eu também quero um.

Mary wants a car which has new pneumatics, I want one too.

(14) Maria quer um vestido azul de bolinhas brancas, eu também quero um.

The deleted sequences in 12-14 are semantically and syntactically coherent.

The general rule seems to be that it is possible to delete the repeated noun, as well as the dets or the modifiers which accompany it, if these are repeated.

By the second criterion, then, the 'noun deletion' is a case of deep anaphora.

By the third criterion, the cases of 'noun deletion' considered so far in Portuguese should be analysed as deep anaphora, since they do not require superficial identity between the antecedent segment and

the segment to be anaphorized. See sentence (15) below in which the first noun is plural and the second one is singular, and sentence (16) where the opposite occurs.

- (15) *Maria quer estes livros, eu quero aquele.*
Maria wants these books, I want that one.
- (16) *Maria quer este livro, eu quero aqueles.*
Maria wants this book, I want those ones.

The fourth criterion is about pragmatic control. By this criterion, also, 'noun deletion' must be considered as deep anaphora, since it can be pragmatically controlled. If two persons are in a corral, and one says (17) to the other one, there is no need to spell the word "bois" 'cattle'.

- (17) *Estão todos aí? Are they all there?*

The sentence (17) can be used in a play room, referring to toys and it will be understood as such. The det. *todos* 'every' must be, in any case, in agreement with the deleted noun, since *bois* and *brinquedos* are both masculine and plural. It is interesting to see that agreement is obligatory even with pragmatic anaphora.

In any case pragmatic control is possible from (2) to (16). We can use any of the examples from (2) to (16) in a certain context without necessarily the first part of the sentences in which the noun is present. So, I may say (18), which is the second clause of (2), in a context in which a book is chosen, and the sentence will be appropriate.

- (18) *Eu quero aquele. 'I want that one'.*

The same can be said about the other examples considered so far.

I believe that the phenomenon of noun deletion in Portuguese is very similar to the phenomenon of "one substitution" in English, which Sag considers as a case of deep anaphora. The main difference between the two languages is that in Brazilian Portuguese there is deletion. It seems to me that Sag does not want to treat deletions as deep anaphora.

The only way to accommodate the distinction between surface and deep anaphora in this case would be to try to consider these facts not as cases of deletion. In fact, traditional grammarians treat the dets. which occur in the second part of the sentences 2-17 as pronouns. Under this interpretation, there would be no deletion, and the pronouns would be interpreted as anaphorically related to the nouns which precede them. Against this analysis, I have examples as (7), in which only the adjective remains, and (9), in which only the PP remains. How is one to interpret adjectives and PPs as pronouns?

There is another problem with this analysis, namely that the pronoun in Portuguese usually 'substitutes' a NP, as we see in (19).

- (19) *Eu disse àquele homem que ele podia entrar.*
I said to that man that he could enter.

The pronoun *ele* 'he' is anaphoric to the whole NP *aquele ho-*

mem 'that man'. The same does not happen with the dets that we have been studying. As we can see in any of the examples from (2) to (18), the dets which remain in the sentence after noun deletion refer to the head noun in the NP, not to the whole NP.

Another difference between 'true' pronouns and dets is the fact that the pronouns cannot be preceded by dets, as we see in (20).

(20) *O ele estava lá. '*The he was there'.

Dets do not obey this restriction, since they can be preceded by other dets, as seen in (21).

(21) Você escolheu esse livro, eu escolho aquele outro.

You have chosen this book, I choose that other.

We can have in place of *aquele*, in (21), *algum*, 'some'; *um*, 'one'; *todos os*, 'all'; *esse*, 'this'; *o*, 'the'. In place of *outro* 'other' we could have a numeral, or *mesmo* 'same', or even an adjective, as seen in (6). The possibility of occurrence of one or another det is regulated by the co-occurrence relations of dets in the NP (see Pontes, 1977).

The possibility of occurrence of more than one det in one NP is, I think, a problem for the analysis that considers these dets as pronouns. How to decide which det is pronoun in (21)? If we say that *aquele* is a pronoun, how to classify *outro*? We must remember that pronouns (like *ele*) do not occur with a following word in the NP. See (22):

(22) *Ele outro estava lá.

He other was there.

In Portuguese, the only words that can follow pronouns in the NP are the reflexive words *mesmo* and *próprio*, as in (23).

(23) Ele **mesmo** fez isso.

próprio

He himself did this.

Another problem for considering such phenomenon as a case of pronoun, is the fact that it is possible to have only an adjective or a PP in the NP, as we see in examples (7) and (9). Nobody would want to say that these are instances of pronouns. And the phenomenon is always the same. The noun is omitted, because its repetition is not always necessary, since it can be discovered from the context.

In short, I think it is very clear that we omit a N or a N accompanied by modifiers in order to avoid repetition. This rule, should, following Hankamer-Sag (1976) and Sag (1979), be a case of surface anaphora (as in conclusion 1, Sag 1979). But, notwithstanding, to be a surface anaphora, this rule conforms to every one of H&S's conclusion on deep anaphora:

a) it represents coherent semantic units;

b) it does not require superficial identity of structure between the antecedent segment and the segment to be anaphorized;

c) it can be pragmatically controlled.

These facts will be better understood if the reader realizes that this phenomenon is very similar to the english rule of 'one

substitution', with the difference that in Portuguese we do not have the pronoun 'one', but simply deletion of the noun. As H&S consider 'one substitution' a case of deep anaphora, the rule responsible for this fits well in their conclusions. But in Portuguese, as the rule is one of deletion, the same characteristics do not fit in the paradigm of "surface anaphora". We have a deletion with the features of "deep anaphora".

The conclusion, I think, is inevitable: the distinction between deep and surface anaphora as stated at the beginning of this article is not valid for Portuguese, and this is a serious challenge for an analysis which postulates such difference as universal.

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