

On the recent treatments of “reflexivization”*

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1. There are two types of reflexive in English, one which requires its antecedent to be located in close proximity and the other which does not have this requirement.¹ It has been observed that the former must have its antecedent in the sentence, be c-commanded by it, and never has split antecedents. The latter does not have these properties. Which of these two types a reflexive belongs to is in general predictable from the position it occurs in, as is shown below. This being so, the problem is how the properties and the distribution of each type should be theoretically correlated with each other.

As I have just mentioned, each of the two types has a certain distributional tendency. If reflexives occupy argument positions of verbs, they require their antecedents to be located close to them. The reflexives in this environment cannot have their antecedents outside the clauses containing them, as the following examples show :

- (1) a. *I think that myself will win.
- b. *Tom believed that the lioness might attack himself.
- c. *Have you ever wondered why Jill gave yourself that tie?

(Ross (1970, 225-227))

If reflexives do not occupy argument positions of verbs, they may have their antecedents outside the clauses containing them :

- (2) a . John expects that pictures of himself would be on sale.
b . ?Tom believed that the lioness might attack Ann and himself.
c . I told Albert that physicists like himself were a godsend.
d . Glinda knows that as for herself, she wouldn't be invited.
(b-d from Ross (1970, 228-231))

In these examples, the reflexives are embedded in arguments of the verbs. Reflexives of this type do not always require their antecedents to be in the sentences. They may appear without antecedents in the sentences if they are in the form of the first or second person. Consider the following examples :

- (3) a . This is a picture of myself that was taken years ago.
(Bouchard (1984, 35))
b . ?Ann and myself wrote this paper. (Ross (1970, 228))
c . ?The lioness may attack Ann and myself. (*ibid.*)
d . Faith in yourself is important in this job.
(Bouchard (1984, 35))
e . As for myself, I won't be invited. (Ross (1970, 232))

If reflexives occupy argument positions of verbs, however, they must have their antecedents in the sentences, as the following examples show :

- (4) a . *Myself wrote this paper.
b . *The lioness may attack myself. (Ross (1970, 228))

The other differences between these two types will be presented in the next section.

So it seems that whether a reflexive occupies an argument position or not is important in differentiating between these two types of reflexives, one which is bound locally and the other which is not bound locally. The latter may occur even without an antecedent in the sentence, as the examples in (3) show. Note that Chomsky's binding theory (1981, 1986, among others) makes no theoretical distinction between the two types. In his theory, they both are subject to the same locality condition, that is, the binding principle A: A reflexive and its antecedent must be close enough in some sense. Tacit presupposition in his theory is that reflexives always have their antecedents in the sentences. So the contrast in acceptability between (3b) and (4a), for example, cannot be explained in his theory. In explaining this contrast, it is necessary to take into consideration whether a reflexive occupies an argument position of a verb or not.

In the next two sections, I will examine some of the recent analyses of the two types of reflexive. In the last section, some examples which require an independent explanation are presented.

2. The distinction between the two types could be characterized without recourse to the notion of argument, along the lines of Lebeaux (1984/85). He points out some parallels between the properties of locally bound reflexives and predication. First, locally bound reflexives must be c-commanded by the antecedents, whereas non-locally bound reflexives need not be:

- (5) a. *John_i's campaign elected himself_i president.
(Lebeaux (1984/85, 358))
b. *John_i's driving habits frighten himself_i.
(Keenan (1988, 223))
c. *John_i's serious nature drove himself_i to suicide.
- (6) a. John_i's campaign required that pictures of himself_i be

- placed all over the town. (Lebeaux, 346)
- b. Those stories about himself_i cause John_i pain. (*ibid.*)

Second, locally bound reflexives cannot have split antecedents whereas non-locally bound reflexives can:

- (7) a. *John_i told Mary_j about themselves_{i+j}. (Lebeaux, 346)
 b. *The boys_i introduced the girls_j to themselves_{i+j}. (*ibid.*)
- (8) a. John_i told Mary_j that there were some pictures of themselves_{i+j} inside. (*ibid.*)
 b. John_i told Mary_j that physicists like themselves_{i+j} were godsend.
 c. John_i told Mary_j that as for themselves_{i+j}, they should leave immediately. (Lebeaux, 346)

Lebeaux argues that these properties of locally bound reflexives are reflexes of the nature of predication: "The necessity for the uniqueness of the antecedent simply reduces to the fact that any predicate has only one subject...The necessity for c-command of the antecedent follows as well, essentially because it will be the full NP which is the subject, not a sub-part of it." (Lebeaux, 358). The locality and the obligatoriness of the antecedent may follow as well, if these are properties of predication. He then explains the properties of locally bound reflexives adapting William's (1980) predication theory. He assumes that predicative phrases and their subjects are coindexed. He further assumes that the indices which predicative phrases receive from their subjects percolate to the reflexives contained within them without crossing maximal projections (He does not count PPs among these maximal projections). Locally bound reflexives will receive the indices of the minimal predicative phrases containing them; non-locally bound reflexives will not receive indices through this process.

Locally bound reflexives are therefore bound by the subjects of the minimal predicates containing them whereas non-locally bound reflexives are not. Thus the differences between these two types follow.

One of the problems with his approach is that it does not take into account the examples of free reflexives such as those in (3) and (4). He tacitly presupposes that reflexives always have their antecedents in the sentences, as Chomsky does. It may be that his approach can deal with these cases. A close inspection of the reflexives in PPs raises another problem with his approach, however. The reflexives in the *about* PP behave as non-locally bound ones do in contrast to those in other prepositional phrases headed by such prepositions as *to* and *with*. First, they are allowed not to be c-commanded by their antecedents, as (9b) and (10b) show:²

- (9) a. *I talked about Thmug to himself.
b. I talked to Thmug about himself.
(Jackendoff (1972, 152))

- (10) a. *We talked about Lucie_i with herself_i.
b. We talked with Lucie_i about herself_i.
(Reinhart and Reuland (1993, 715))

Second, they can be free in the sentence, as (11b) show:

- (11) a. *Can you talk with myself about Lucie?
b. Can you talk with Lucie about myself? (*ibid.*)

Third, they can have split antecedents under certain circumstances:

- (12) a. ?*John_i spoke to Mary_j about themselves_{i+j}.
b. John_i whispered secret things to Mary_j about
themselves_{i+j}. (Zribi-Hertz (1989, 720))

Zribi-Hertz (1989) explains the difference in acceptability between (12a) and (12b) as follows: In (12b), *John* and *Mary* can be construed more easily as “accomplices of a sort” than in (12a). So *John* and *Mary* are felt to be one element in (12b): They form “one single subject of consciousness.” The following examples may possibly be explained in the same way:

- (13) a. At last Bob resolved [PRO_i] to talk to Jane_j about themselves_{i+j}.
 b. You_i whispered to Mary_j about yourselves_{i+j} just like that, in front of everybody? (Carroll (1986, 9))

So the reflexives in the *about* PP behave as non-locally bound ones do in these three respects. In order to explain the peculiarity of the *about* PP, it is necessary to differentiate among prepositional phrases according to their properties. It is not obvious, however, how the predication theory could do it.

As is well-known, Jackendoff (1972) proposes the condition which prohibits a reflexive from being higher than its antecedent on the thematic hierarchy, in which the Theme is the lowest of all the thematic relations. Assuming that the *to*-phrase and *with*-phrase are higher on the thematic hierarchy than the *about*-phrase, which he assumes to be the Theme, examples (9a) and (10a) will be ruled out because the reflexives are thematically higher than the antecedents. On the other hand, examples (9b) and (10b) will be grammatical because the antecedents are thematically higher than the reflexives. Whether or not this is a correct explanation of the contrasts shown in (9) and (10), something else must be involved in these cases, in light of examples (11a-b): Whether a reflexive can be free in the sentence or not has nothing to do with the condition above, which regulates the relation between two elements. It is also implausible that the distribution of free reflexives can be explained by any kind of condition stated

in terms of thematic hierarchy. In (3a-e), the reflexives are free in the sentences, but their thematic relations seem to vary unpredictably from each other. In short, it is impossible to explain the distribution of free reflexives in terms of their thematic relations. So if the contrasts shown in (9) and (10) are to be correlated with the one in (11), then something other than thematic hierarchy must be taken into consideration.³

3. We have seen that the reflexive in the *about* PP should be regarded as belonging to the class of non-locally bound reflexives. It must then have something in common with non-locally bound reflexives. Reinhart and Reuland (1993) assume that the *about* PP is an adjunct. That is, the reflexives in that PP do not occupy argument positions of verbs whereas those in the *to* pp and *with* pp do. They propose the following condition:

(14) Condition A

A reflexive-marked predicate is reflexive.

(15) Definitions

a. A predicate is *reflexive* iff two of its arguments are coindexed.

b. A predicate (formed of P) is *reflexive-marked* iff either P is lexically reflexive or one of P's arguments is a SELF anaphor.⁴

If a reflexive is an argument of a predicate, it reflexive-marks the predicate by (15b). The predicate must be reflexive by (14). The reflexive must then be coindexed with one of its coarguments by (15a). As a result, a reflexive in an argument position must have its antecedent (obligatoriness of the antecedent) in its coargument domain (locality). Furthermore, it must not be coindexed with an element embedded in an argument (c-command requirement) and cannot have split antecedents (uniqueness of the

antecedent). A reflexive which is not an argument of a predicate does not have these properties because it does not reflexive-mark the predicate.

4. Insofar as the assumption that the *about* PP is an adjunct is correct, Reinhart and Reuland succeed in correlating the distribution and the properties of each reflexive type by introducing the notion of reflexive-mark. Lebeaux's approach is tenable to the extent that it can differentiate among prepositional phrases according to their properties concerning anaphoric binding.

One of the remaining problems is that some non-locally bound reflexives observe the SSC and others not, at least for some speakers. Non-locally bound reflexives in picture PPs seem to observe it, as the following examples show :

- (16) a. *Tad_i knew that Sheila had claimed that it would
be a story about himself_i.
b. *Mike_i will not believe that Jane found out that
this is a photograph of himself_i.
c. *I promised Omar_i to tell Betty that it would be a poem
about himself_i. (Ross (1970, 232))

Other non-locally bound reflexives such as those in coordinated NPs and in *like*-phrases do not observe it :

- (17) a. Tom_i thinks that I tried to get Mary to make you say
that the paper had been written by Ann and himself_i.
(Ross (1970, 227))
b. Albert_i accused me of having tried to get his secretary to tell
you that physicists like himself_i were hard to get along with.
(Ross (1970, 230))

My informant's judgments coincide with Ross's (1970), as the following examples show:⁵

- (18) *John_i thinks that Mary likes pictures of himself_i.
- (19) a. John_i thinks that Mary will duly appreciate
a physicist like himself_i.
- b. John_i thinks that Mary loves both his father and himself_i.

If the contrasts in acceptability shown in (16)-(19) are real, the problem is that the reflexives in picture PPs are Janus-faced in that they obey the SSC in contrast to the other non-locally bound reflexives, but they may be free in the sentences as the other non-locally bound reflexives may. Further investigation is necessary in this respect.

Notes

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1 See Bouchard (1984), Lebeaux (1985/86), Keenan (1988), Pollard and Sag (1992) and Reinhart and Reuland (1993), among others.

2 It might be the case that prepositions such as *to* and *with* form single predicates with the adjacent verbs through reanalyses whereas the preposition *about* does not. If it were the case, the reflexives in the *about* PP would be c-commanded by the NPs contained in the *to* PP or *with* PP and predicationally bound by the antecedents. This is not plausible, however. Williams (1980) argues that in (i), the verb and the preposition *of* are reanalyzed into a single verb:

(i) John thinks of Bill as silly. (Williams (1980, 204))

He presents the examples in (ii) as supporting evidence for the reanalysis of the verb and the preposition *of*:

- (ii) a. Bill was thought of as silly.
b. Who do you think of as silly?

c. *Of whom do you think as silly? (ibid.)

The extraction of the object of the preposition *of* is possible (iia-b), but the whole *of*-phrase cannot be extracted (iic). It is hard to find a contrast between (iia-b) and the corresponding sentences containing the prepositions *to* and *with*. Consider, however, the following examples:

- (iii) (=iic) *Of whom do you think as silly?
- (iv) a. To whom_i did you speak about himself_i?
- b. ??With whom_i did you talk about himself_i?

The whole PPs can be extracted in (iv) in contrast to (iii). Consider also the following examples:

- (v) a. *John thinks seriously of Bill as silly.
- (vi) a. ?I spoke seriously to the man_i about himself_i.
- b. ?I talked seriously with the man_i about himself_i.

The intervention of the adverb in (v) makes the sentence bad, but in (vi) the same operations do not make the sentences bad. Therefore, the prepositions *to* and *with* cannot form single predicates with the adjacent verbs. The reflexives in the *about* PP cannot be c-commanded by their antecedents contained in *to* or *with* PPs. See also Chomsky (1981, 225f.).

- 3 Pollard and Sag (1992) explain anaphoric binding in terms of a hierarchy of grammatical relations. They propose that “[a]n anaphor must be coindexed with a less oblique coargument, if there is one” (p. 266). If the *to*-phrase and *with*-phrase are less oblique than the *about*-phrase, the examples in (9) and (10) are explained. Example (11b), however, is wrongly ruled out: The reflexive in the *about*-phrase must be coindexed with the less oblique coargument, the *with*-phrase, but it is not.
- 4 Reinhart and Reuland classify reflexives in various languages into two types: “those that are standardly referred to as long-distance anaphors (Dutch *zich*, Norwegian *seg*, Italian *se*, etc.) and those that are viewed as local (English *himself*, Dutch *zichzelf*, Norwegian *seg selv*, etc.)” (p. 658). They refer to the former as SE and to the latter as SELF anaphors. A predicate can be reflexive-marked without a SELF anaphor when it is “lexically reflexive,” as in the following examples ((ia-b) are Dutch and (ic-d) are Norwegian):

- (i) a. Max wast zich.

- Max washes SE.
- b. Max schaamt zich.
Max shames SE.
- c. Jon wasket seg.
Jon washed SE.
- d. Jon skammer seg.
Jon shames SE. (Reinhart and Reuland, 666)

In (ia-d), the predicates are reflexive-marked because they are intrinsically, that is, lexically reflexive. They satisfy (14) because they have two arguments which are coreferential with each other.

Note that the notion of predicate must be syntactic, not semantic. For example, they present the following examples:

- (ii) a. Max heard [himself criticize Lucie].
- b. Max expects [himself to pass the exam].
(Reinhart and Reuland, 707)

The reflexives in (iia-b) must belong to the class of locally bound reflexives because reflexives in these positions cannot be free in the sentences:

- (iii) a. *John expects myself to win the prize.
- b. *Lucie expects [myself to entertain myself] .
((iiib) from Reinhart and Reuland, 680)

The reflexives in (ii) - (iii) must be reflexive-marking the matrix verbs, because if they do not, example (iia-b) will be wrongly ruled out. However, they are not semantic arguments of the matrix verbs. To accommodate these cases, Reinhart and Reuland introduce the notion of syntactic predicate, and regard the reflexives in (ii) as arguments of the matrix verbs.

5 Kuno (1987), however, admits only slight differences between them:

- (i) ??/*John said to Mary that Jane was sure that there was a picture of himself in the post office. (Kuno (1987, 125))
- (ii) a. ?/*John said to Mary that Jane was sure that the paper had been written by Ann and himself. (Kuno (1987, 122))
- b. ?/*John said to Mary that Jane was sure that physicists like himself were a godsend. (Kuno (1987, 125))

References

- Bouchard, D. (1984) *On the Content of Empty Categories*. Dordrecht: Foris.
- Carroll, S. (1986) "Reflexives and the Dependency Relation R." *Canadian Journal of Linguistics*, 1-43.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. (1986) *Knowledge of Language: Its Nature, Origin, and Use*. New York: Prager.
- Jackendoff, J. (1972) *Semantic Interpretation in Generative Grammar*. Cambridge: MIT Press.
- Keenan, E. L. (1988) "Complex Anaphors and Bind α ," "In *Papers from the 24th Regional Meeting of the Chicago Linguistic Society*, 216-32. University of Chicago: Chicago Linguistic Society.
- Kuno, S. (1987) *Functional Syntax: Anaphora, Discourse and Empathy*. Chicago: University of Chicago Press.
- Lebeaux, D. (1984/85) "Locality and Anaphoric Binding," *The Linguistic Review* 4, 343-363.
- Pollard, C. and Ivan A. Sag (1992) "Anaphors in English and the Scope of Binding Theory," *Linguistic Inquiry* 23, 261-303.
- Reinhart, T. and E. Reuland. (1993) "Reflexivity," *Linguistic Inquiry* 24, 657-720.
- Ross, J. R. (1970) "On Declarative Sentences," In R. A. Jacobs and P. S. Rosenbaum, eds., *Readings in English Transformational Grammar*. Waltham, Mass.: Ginn and Co.
- Williams, E. (1980) "Predication," *Linguistic Inquiry* 11, 203-208.
- Zribi-Hertz, A. (1989) "Anaphor Binding and Narrative Point of View: English Reflexive Pronouns in Sentence and Discourse," *Language* 65, 695-727.