

## On Non-Anaphor Reflexives

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### Résumé de l'article

Dans cet article nous présentons une analyse des formes réfléchies du français dans laquelle nous faisons une distinction entre les réfléchis *anaphores* et les réfléchis *référentiels*. La distinction se fait à partir de deux ensembles de propriétés différentes auxquelles correspondent d'une part le clitique *se* (le réfléchi anaphore), d'autre part les pronoms *lui/lui-même* (les réfléchis référentiels). Notre hypothèse est la suivante : l'anaphore est un opérateur dont le domaine est le SV. En français, l'anaphore est mise en position d'adjonction dans la composante syntaxique. Dans cette position, l'anaphore se trouve indexée par le sujet qui devient par conséquent son antécédent obligatoire. L'indexation s'effectue par la règle de Prédication au niveau de la Forme Logique. Le français diffère de l'anglais en ce qui concerne la mise en position de l'opérateur. Celle-ci a lieu dans la syntaxe en français mais dans la Forme Logique en anglais. Nous démontrons en quoi les propriétés des réfléchis anaphores diffèrent des propriétés des réfléchis référentiels et comment ces propriétés découlent de notre analyse.

# ON NON-ANAPHOR REFLEXIVES\*

Susanne Carroll

## 1. Introduction<sup>1</sup>

Generative linguistics has been concerned since its inception with the problem of specifying the innate set of principles which comprise Universal Grammar. We hypothesize that one subset of these principles regulates anaphora, i.e. the connecting of categories in or across sentences. Research in this area has focused on principles associating two constituents (the *antecedent* and the *anaphoric element*) and the earliest work was concerned with this connecting on the assumption that grammatical principles have a direct effect on interpretation, in particular coreference (cf. Lees and Klima (1963), Langacker (1969), Dougherty (1969), Jackendoff (1972), Lasnik (1976), Reinhart (1981)). More precisely, it was claimed that coreference is not possible if the anaphoric element is in a certain configurational relationship to its antecedent (the details being specified in the various command, k-command and c-command restrictions on coreference). In short, the connecting relation was viewed as coreference. More recently, attention has focused on binding principles, i.e., principles which require an NP to be either bound (i.e. connected or associated) or free (i.e. unconnected or unassociated) within some specified domain. The binding

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*\* This paper is dedicated to Judith Mc A'Nulty whose diligence and sense of commitment to linguistics were well-known. In an academic discipline, and in a profession, where female role models are still scarce, Judith was an inspiration to students and colleagues alike. She will be sorely missed.*

1. This paper is a substantially revised version of a paper by the same name which was written in the fall of 1983. There have, of course, been a significant number of modifications proposed since then for the version of the Government and Binding theory which my analysis presupposes. Some of those modifications, particularly those concerning the ECP, could result in improvements to the present analysis. I have chosen not to incorporate any such modifications into my analysis since its major thrust remains unaffected. I would like to thank all those people who have commented on the paper in particular, Mike Rochemont and two anonymous reviewers. I would also like to thank the F.C.A.C., Ministère de l'Éducation du Québec, who financed the original research for this paper through their programme of post-doctoral fellowships.

principles can operate independently of the interpretation of the various NPs in the sentence. Binding is thus not reducible to coreference. Furthermore, binding requirements are seen as a problem for grammatical description but the interpretation of anaphoric expressions is a semantic problem which falls outside of the grammar (for discussion of this, see Evans (1980)). The syntactician's task is to make precise the syntactic conditions under which binding is necessary, is merely possible, or is excluded altogether. The correct statement of binding conditions will then serve as input to the much broader problem of specifying conditions of coreference in discourse.

Much of the relevant research, be it syntactic or semantic in orientation (see references), has concluded that anaphoric connexions are of two types, which are distinct but complementary. On the one hand, there are relations like those between core reflexives, reciprocals, and NP traces and their antecedents (which have the properties illustrated in (1), cf. Helke (1972), Lebeaux (1982), Koster (1984)). Following recent practice, we shall refer to these expressions as *bound anaphors* (*anaphors* for short). On the other hand, there are the relations between simple pronouns and their antecedents (which have the properties in (2)):

- (1)
  - a. The relation is obligatory.
  - b. The antecedent must c-command the anaphoric expression.
  - c. The antecedent is unique.
  - d. The relation is local.
  - e. In instances of VP-deletion where the antecedent and the deleted phrase contain anaphoric elements, the understood expression in the second clause must be locally construed.
  
- (2)
  - a. The relation is not obligatory.
  - b. The antecedent may but need not c-command the anaphoric expression.
  - c. The antecedent need not be unique.
  - d. The relation cannot be local.
  - e. In instances of VP-deletion where the antecedent and the deleted phrase contain anaphoric elements, the understood expression in the second clause may be but need not be locally construed.

Notice that anaphors are required to be bound in all syntactic contexts, and that pronouns are required to be free in at least one domain. These distinctions are incorporated directly into the binding theory of Chomsky (1981, 1982) which stipulates that 'Anaphors' (understood here as nouns bearing the feature + Anaphor) must be bound in that governing category which contains them and an Accessible SUBJECT, while 'Pronominals' (understood here as nouns which bear the feature + Pronominal) must be free in their minimal governing category). The distinctions in (1) and (2) will be of particular importance in this paper for we have demonstrated on the basis of a detailed examination of English reflexives (Carroll 1984, 1985), that pronoun *-self* exhibits the properties of both anaphors and *non-anaphors*. We define a *non-anaphor* as any anaphoric (or cataphoric) expression which fails to correspond to (1). So, on the basis of sentences like those in (3), we pointed to the existence of non-anaphor reflexives, alongside the core anaphor cases of (4a,b) and the more unusual anaphors in (4c-f):

- (3) a. I remembered that another person had been in the sittingroom later than Penelope. That person was yourself.  
(Collins, *The Moonstone*)
- b. It's very frustrating for just myself to have a broken hand.  
(Tim Raines, sportscast 1982)
- c. They didn't notice either Mr. Flay or himself.  
(Peake, Titus Groan)
- d. You might want to direct a question like that at myself.  
(Jeff Rimer, sportscast 1982)
- e. You have any questions, just ask myself.  
(O.I.S.E. administrator, March 1985)
- f. In her last job, there had been only herself.  
(P.D. James, *Death of an Expert Witness*)
- g. The advantages to himself<sub>i</sub> were too absorbing PRO<sub>i</sub> to ponder.  
(Peake, Titus Groan)
- h. Terry, let's talk about yourself.  
(Jeff Rimer, sportscast 1982)
- i. There's no way we can stay within those limits. No one can, including themselves.  
(B.C. union leader in C.B.C. radio broadcast)

- (4) a. Georgia saw herself.
- b. Georgia looked at herself.
- c. Georgia twirled herself dizzy.
- d. Georgia believed herself to be the prettiest two-year old at the party.
- e. Georgia ate the ice cream herself.
- f. Georgia herself ate the ice cream.

In contrast to Carroll (1985), most analyses of reflexives in English assume that both the core cases of anaphors (the direct object and indirect object anaphors) and other, more problematic cases, including the picture-noun reflexives (Warchawsky (1965), Helke (1972), Jackendoff (1972), Koster (1978)), the subjects of infinitives introduced by the complementizer *for* (Chomsky 1973, 1980, 1981, 1982), topicalized, clefted and pseudo-clefted reflexives (Pollard and Sag 1983) are reflexives of the same kind. As such they ostensibly all fall under (1) and are subject to the same binding principles (or at least fall under some single analysis). We have shown that this assumption is ill-founded and leads to unnecessary complications in the formulation of locality, binding or government (Carroll 1985). Our conclusion follows from the observation that the reflexives which appear to require such extensions of the theory, in fact, have the properties of the non-anaphor reflexives, namely the properties of (2). In other words, researchers have failed to recognize either that non-anaphor reflexives exist, or that they occur in a very wide set of contexts, in some of which they may appear to behave like anaphors (we return to this point below).

We have argued, in addition, that one cannot postulate two types of reflexives in terms of features which require them to occur in mutually exclusive contexts and which define them as distinct words (one type corresponding to the 'Anaphor' and the other type corresponding to the 'Pronominal'). This is because the anaphor and non-anaphor reflexives occur in over-lapping contexts and, in addition, the non-anaphors are not subject to any locality constraints on their distribution. They do not obey (2d). They are consequently not 'Pronominals' (contra Lebeaux (1983), Bouchard (1985); see Chomsky (1982) on the subject of pronominals and their characterisation in terms of features). This fact does not preclude the non-anaphor reflexives from sharing many properties with simple pronouns. They are, afterall, both referential expressions. But it should be emphasized that 'Pronominal' corresponds to a well-defined term in the binding theory

while “pronoun” does not. Simple, reflexive, demonstrative and interrogative pronouns have quite different binding and referential possibilities. It simply will not do, therefore, to point to the non-anaphor reflexives and make vague comments about their being “like pronouns”. An adequate description must explain in precisely what ways the non-anaphors resemble the ‘Pronominals’. We feel that our analysis provides a first step in this direction. Intensive investigation of core reflexives and reciprocals, and simple pronouns has led to the formulation of (1) and (2). It is on the basis of (1) and (2) that one can distinguish semantically distinct but homophonous types of reflexives. We have argued that only the anaphors are subject to grammatical constraints. The non-anaphors, on the other hand, are more properly the subject matter of discourse analysis.

The purpose of this paper is to show that French exhibits similar distinctions and that a proper account of English reflexives can be extended to French, with some important distinctions which relate to differences in the noun typology of the two languages (see below). We shall argue that such distinctions form the basis for a complex interaction of different principles of Core Grammar, allowing for rich variation in the surface facts concerning reflexivisation. Since the facts about the non-anaphors are not widely known we have decided to sketch out our analysis of English reflexives first. This exposé is, of necessity, cursory. Readers interested in the full analysis of the English *proself* should consult Carroll (1985). Following the presentation of the basic facts of the analysis, we shall then show how the same analysis can be extended to French to give an interesting account of the differences in the connecting **and** interpretive properties of the clitic *se* and the pronouns *lui/lui-même*. Furthermore, we shall see how the reflexives of French differ from the reflexives of English. We shall argue that the clitic *se* is necessarily an anaphor and can have no other status because its position as a clitic on the verb requires it to be connected to the subject.<sup>2</sup> It thus contrasts with the English reflexive which is a full word and must occupy an argument position in D-structure and S-structure to satisfy the requirements of the Projection Principle and the Case filter. The forms *lui/lui-même*, on the other hand, are non-anaphor reflexives and they occur in syntactic contexts which prevent the same connecting pattern (just like

2. We shall ignore here those clitics which are not also arguments of the predicate, like the *se* of *s'évanouir*. These forms cannot give rise to the appropriate interpretation since their lexical entries will not contain an internal argument, nor will a theta role be assigned to the reflexive clitic.

the referential form of the English reflexive). As will become obvious, the analysis draws heavily upon the work of Edwin Williams (1980, 1981, 1982, 1984) and we shall be assuming basically the general principles of the Government-Binding theory (cf. Chomsky 1980, 1981, 1982 and references therein), with specific concepts and definitions modified to suit our purposes.

The paper will be organised as follows: Section 2 will outline the analysis of English reflexives. In Section 3 we will discuss differences in the behaviour of the various forms used to express reflexivity in French. In section 4, we will extend the analysis to French. It will be suggested along the way, that an adequate theory of reflexivisation must distinguish between various types of antecedents. It has often been observed that "core" reflexives are connected to subjects (cf. Faltz 1977). Certainly it is the case that in many languages *only* the subject may bind the reflexive. In every language that we know of where other NPs are connected to the reflexive form, the subject is also so connected. Conversely, we know of no language where the subject is excluded as an antecedent. This observation, if accurate, begs explanation. However, in this paper we shall take the position (following Williams 1980, 1981, 1984) that it is not subjecthood *per se* which is the relevant notion but rather the external/internal dimension of arguments of predicates. We shall argue that external arguments have a "special" status as antecedents to anaphors. In other words, we intend to express in the theory of grammar the often-made observation that reflexives are bound by *subjects* in terms of the claim that *anaphor* reflexives are connected to the external argument of the predicate that contains the reflexive. This connecting of the internal argument to the external argument will be accomplished through the Predication Rule (Williams 1980), which will operate in such a way as to coindex the two positions, and a rule of Operator-raising, which operates to place the reflexive in a position where the Predication rule can produce the desired coindexation. Through Predication, we shall also provide an explanation for the fact that in many languages reflexive expressions in VPs are different from reflexives in other categories both in terms of their form and their functioning.

We believe that an adequate theory of reflexives must explain the facts concerning the status of external arguments as antecedents to reflexives, as well as the properties of (1), and that it is insufficient to merely describe the contexts where the reflexive forms occur. Existing theories of binding in the

Government-Binding framework, of course, do explain why anaphors exhibit most the properties of (1) (property (1c), for example, remains unexplained). They do not, however, explain why external arguments are the unmarked type of antecedent nor do they explain why reflexives in VPs which are arguments of the verb have different properties from those in other categories. Furthermore, they say nothing at all about either the distribution or the properties of the non-anaphors. Since our account does provide an explanation for these facts, we feel it constitutes an important improvement on existing analyses of reflexivisation.

## 2. Anaphor and non-anaphor reflexives in English

The sentences in (3), repeated below, present clear problems for any theory which claims that all reflexives are anaphors and have the properties of (1):

- (3) a. I remembered that another person had been in the sitting-room later than Penelope. That person was yourself.  
(Collins, *The Moonstone*)
- b. It's very frustrating for just myself to have a broken hand.  
(Tim Raines, sportscast 1982)
- c. They didn't notice either Mr. Flay or himself.  
(Peake, *Titus Groan*)
- d. You might want to direct a question like that at myself.  
(Jeff Rimer, sportscast 1982)
- e. You have any questions, just ask myself.  
(O.I.S.E. administrator, March 1985)
- f. In her last job, there had been only herself.  
(P.D. James, *Death of an Expert Witness*)
- g. The advantages to himself<sub>i</sub> were too absorbing PRO<sub>i</sub> to ponder.  
(Peake, *Titus Groan*)
- h. Terry, let's talk about yourself.  
(Jeff Rimer, sportscast 1982)
- i. There's no way we can stay within those limits. No one can, including themselves.  
(B.C. union leader in C.B.C. radio broadcast)

It should be obvious from even a cursory examination of these sentences that they contain reflexives which have a property that anaphors



lack, namely they refer, and this reference occurs independently of any NP in the sentence. This is most obvious in (3a-e) where there simply is no NP to which the reflexive is linked. Consequently, we conclude that there are reflexives which do not have an obligatory connecting relation to some NP.<sup>3</sup> This behaviour corresponds to (2a).

We can see from (3f-g) that when an appropriate NP occurs in the sentence, it need not c-command the reflexive (as per (2b)). So there are reflexives which do not conform to the requirement on anaphors that antecedents c-command.

Sentences (3h-i) demonstrate that when antecedents occur, they need not be unique. This property is illustrated even more clearly in (5):

- (5)
- a. Bryan<sub>i</sub> told Gillian<sub>j</sub> that some unknown individuals would win the Irish Sweepstakes. Those individuals were themselves<sub>i+j</sub>.
  - b. Bob<sub>i</sub> told Peter<sub>j</sub> about the mix-up in the invitations to the party. It was very embarrassing for just themselves<sub>i+j</sub> to be going.
  - c. As for that job, Margaret<sub>i</sub> told Nancy<sub>j</sub> that there would be just themselves<sub>i+j</sub> on it.
  - d. I<sub>i</sub> told you<sub>j</sub> that he had noticed only Bob and ourselves<sub>i+j</sub>.
  - e. He<sub>i</sub> told me<sub>j</sub> about the renegotiated contract. No one can live within those limits, certainly not ourselves<sub>i+j</sub>.
  - f. He<sub>i</sub> told her<sub>j</sub> that the advantages to themselves<sub>i+j</sub> were too visible.
  - g. He<sub>i</sub> told her<sub>j</sub> PRO<sub>j</sub> to ask the question of themselves<sub>i+j</sub> before insisting that others respond.
  - h. He<sub>i</sub> thinks, Terry<sub>j</sub>, that you<sub>j</sub> should talk about yourselves<sub>i+j</sub>.
  - i. The boss<sub>i</sub> has told me<sub>j</sub> that if you have any questions, you should ask just ourselves<sub>i+j</sub>.

What we see exhibited in each of these sentences is the phenomenon of split antecedence. The reflexive is connected to an NP in more than one

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3. This is a property of reflexives only. There are no referential reciprocals.

structural position. So these reflexives exhibit (2c). Anaphors, in contrast, exhibit (1c).<sup>4</sup>

The relationship between the non-anaphor reflexives and coreferring NPs is clearly not local. Antecedents can be in separate sentences. When antecedents occur in the same sentence, they can be outside of the usual minimal domain. The following sentences contain non-anaphor reflexives:

- (6) a. John and Mary thought that pictures of themselves would be on sale.
- b. John and Mary thought that it was important for themselves to be present at the meeting.

In other words, we believe that the reflexives which have been used to demonstrate the necessity for redefinitions of the government domain in terms of Accessible SUBJECT (Chomsky 1981) are, in fact, non-anaphors (and indeed they fall outside the binding theory as we shall demonstrate below). Not only do reflexives in NPs, or reflexives which are subjects of infinitives marked with complementizers fail to satisfy (1d), they also fail to satisfy (1a-c,e):<sup>5</sup>

- (7) a. John and Mary thought that pictures of just ourselves would be on sale. (= 2a)
- a'. John and Mary thought that it was important for yourselves to get away. (= 2a)
- b. As for John<sub>i</sub>, Mary<sub>j</sub> told me that pictures of just themselves<sub>i+j</sub> would be on sale. (= 2b,c)
- b'. As for John<sub>i</sub>, Mary<sub>j</sub> told me that it was important for just themselves<sub>i+j</sub> to get away. (= 2b,c)
- c. John said that a picture of himself would be on sale, and so did I.  
     = I said that a picture of myself would be on sale.  
     = I said that a picture of John would be on sale.  
     (= 2e)

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4. Reciprocals clearly do not permit split antecedents. Consider (i):

- (i) a. \*As for Bob<sub>i</sub>, Mary<sub>j</sub> and Jane<sub>k</sub> discussed each other<sub>-i+j+k</sub>
- b. \*As for Bob<sub>i</sub>, Mary<sub>j</sub> thought about each other<sub>-i+j</sub>

The same is true of NP trace (cf. Koopman and Sportiche (1982), Safir (1984)).

5. The notion of Accessible SUBJECT has been criticized on other grounds, cf. Bouchard (1985).

- c'. John said that it was important for just himself to get away, and so did I.  
 = ?I said that it was important for just myself to get away.<sup>6</sup>  
 = I said that it was important for just John to get away.  
 (= 2e)

Finally, we observe that, unlike anaphors, non-anaphor reflexives can have both bound and free variable readings in instances of VP deletion (and one can demonstrate that the existence of both readings cannot be explained in terms of a typology of anaphor/pronominal reflexives wherein the anaphor gets a bound variable reading, and the pronominal gets a free variable reading, for details, see Carroll 1985):

- (8) a. The police were looking for some unidentified person in connexion with the crime. John thought that the person in question was himself, and so did his mother.  
 = his mother thought that the person in question was John.  
 ?his mother thought that the person in question was his mother.<sup>6</sup>
- b. John thought that it was tough for just himself to have a broken hand. His wife did too.  
 = His wife thought that it was tough for just John to have a broken hand.  
 ?His wife thought it was tough for just her to have a broken hand.<sup>6</sup>
- c. Mary believed that in her last job there had been only herself, and Liz did too.  
 = Liz believed that in Mary's last job there had been only Mary.

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6. In some contexts, changing the gender of the NP in the embedded conjunct so that it contrasts with the gender of the NP subject of the first conjunct is sufficient to make a bound variable reading less acceptable. We believe that this occurs because these same contexts strongly encourage the association of the understood reflexive and this subject. Assumptions about plausible situations, namely that mothers are less likely to be involved in criminal activity than their sons (as in (8a)) can encourage one reading over the other. This interference of pragmatics in the interpretation of the reflexive only serves to reinforce our conviction that these examples involve referential reflexives.

- = Liz believed that in Liz's last job there had been only Liz.
- d. Mary believed that either herself or Bob would be fired, and I did too.  
= I believed that either Mary or Bob would be fired.  
?I believed that either myself or Bob would be fired.<sup>6</sup>
- e. John believes that the advantages to himself are enormous, and so does Jane.  
= Jane believes that the advantages to Jane are enormous.  
= Jane believes that the advantages to John are enormous.
- f. John said that pictures of himself would be available shortly, and so did Jane.  
= Jane said that pictures of Jane would be available shortly.  
= Jane said that pictures of John would be available shortly.

Before presenting our analysis of English reflexives, we would like to point out that the presence or absence of referentiality in these sentences is not a by-product of binding (contra Lebeaux 1982). The following reflexives are non-anaphors but are bound in the technical sense of being coindexed to a c-commanding NP in a minimal governing category:<sup>7</sup>

- (9) a. We spent the evening playing Charades. I played Isis, George was Napoleon, and you, true to form, were yourself.
- b. They didn't pay any attention to either Mr. Flay or themselves.
- c. They weren't prepared for just themselves to be invited.
- d. Their opinions about themselves were too bizarre for words.
- e. You can direct questions like that at yourselves.
- f. We only want to talk about ourselves.

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7. Since we deny the need for a definition of minimal governing category which depends on Accessible SUBJECT (and which relies on reflexives as its justification), we shall define it as the minimal NP or S which includes the governed expression and the governor (Chomsky 1981).

The reflexives in (9) appear to conform to (2) and not (1) although they are bound locally (for a demonstration of this, see Carroll 1985).

## 2.1 *The Predicate-based analysis of reflexives*

In this section, we will lay out an analysis of both anaphor and non-anaphor reflexives in English. We start from the observation that anaphor reflexives are quite restricted in their distribution but that non-anaphors can occur virtually anywhere.<sup>8</sup> An initial consideration of the contexts where the anaphors occur (see (4)) reveals that they occur as direct and indirect objects (the core cases), as the subjects of small clauses (in the sense of Williams 1975, 1983), as subjects of complementizerless infinitives (the Exceptional Case-Marking contexts) and as adjuncts to NPs. As noted above, the subjects of embedded tensed sentences cannot be linked to antecedents in the matrix (on an anaphor interpretation). Contrast (10a) and (10b):

- (10) a. Bennie believed herself to have won the prize trip.  
 b. \*Bennie believed that herself won the prize trip.

Non-anaphors, however, do occur in precisely this context (when all Case restrictions are met, see below). So we conclude that subjects of embedded sentences cannot be anaphor reflexives if an S' separates them from the antecedent. Similarly, the reflexives contained inside NPs and PPs must be non-anaphors. The situation with reflexives in APs is different, as (11) shows:

- (11) a. \* Bob was polite to myself.  
 b. \* As for Bob<sub>i</sub>, I was polite to himself<sub>i</sub>.  
 c. \* I told Bob that I'd be generous to ourselves.

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8. There are two exceptions to this claim: adjunct reflexives cannot be non-anaphors; no reflexives can appear in the position of the subject of tensed clauses:

- (i) a. \*Bob<sub>i</sub> himself<sub>j</sub> did the surgery.  
 b. \*Bob<sub>i</sub> did the surgery himself<sub>j</sub>.  
 (ii) \*Himself<sub>i</sub> left.

We attribute the first restriction to the fact that the adjunct reflexives are adverbial in nature. This conflicts with their being referential since they cannot be assigned a theta role. Consequently, although it might be possible for a derivation to arise with non-anaphors in (i), there simply would be no interpretation for them. The problem in (ii) is quite different, and results from the fact that reflexives are inherently marked for Accusative Case. They cannot be directly assigned Nominative Case; see the text for discussion.

- d. Bob was generous to himself and so was I.  
     = I was generous to myself.  
     ≠ I was generous to Bob.

We shall have more to say about this distinction but we conclude tentatively that anaphor reflexives are not separated from their antecedent by more than a single maximal projection (taking NP, PP, AP, VP and S' to be maximal projections).

The second observation crucial to our analysis has already been stated, namely that anaphor reflexives are connected to the external argument of the predicate which contains them, while non-anaphor reflexives can have any NP as an antecedent. So (12a) contains an anaphor reflexive while (12b) contains a non-anaphor. The reflexive in (12c) can be connected to the external argument of the predicate *critical* but not to the following NP:

- (12) a. Bob talked to himself about Jane.  
       b. Bob talked to Jane about herself.  
       c. Bob was critical of himself in front of Jane.  
       d. \*Bob was critical of herself in front of Jane.

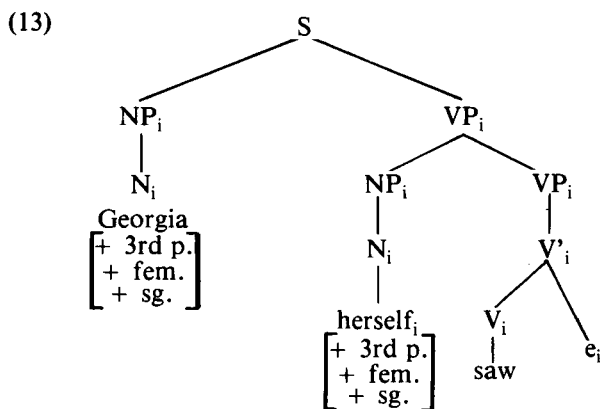
Our third observation has also been made above and is well-known and uncontroversial: anaphor reflexives do not refer. Other NPs can have this property, notably operators. Thus certain quantifiers like *each* or *all* do not refer to individuals (which does not imply that all quantifiers are operators; some quantifiers may be referential). We propose to exploit this property in our analysis. We hypothesize that overt anaphors are operators.<sup>9</sup> In fact, let us suppose, to formally express this, that they bear a feature +Q. The hypothesis that overt anaphors are operators has a considerable amount of plausibility. It would provide an explanation for the fact that in many languages the reciprocal actually consists of or contains an expression homophonous with some quantifier of the language.<sup>10</sup> In English this expression is *each* and *each* is an operator. The hypothesis will also, we believe, allow us to explain why the reflexive expression is typically used in many languages with an adverbial function meaning "uniquely", "individually" or "alone" (cf. Edmondson and Plank 1978). Certainly, this is

9. Others have independently proposed the same thing, notably Gazdar and Sag (1981), Lebeaux (1983), Williams (1984).

10. It should not go unnoticed that many analyses of reciprocals involve movement of the quantifier part of the expression. There is the traditional Q-Float analysis (Dougherty 1974). More recently, Lebeaux (1983) has proposed a movement analysis of the reciprocal.

true of the adjunct reflexives of English which are, as we remind the reader, anaphors. So we would claim that it is not an accident that these distinct functions are realised by the same expression.<sup>11</sup>

We hypothesize that the reflexive operators, like other operators, are subject to movement and are chomsky-adjoined to VP at LF. The proposed reflexive operators will have the predicate as their domain (namely VP) since that domain could not be either S or S': reflexives do not exhibit crossover effects (for evidence that English has other VP-domain operators cf. Baltin (1982)). At LF the movement of the operator precedes the operation of the Predication rule (Williams 1980). It interacts with the Predication Rule which coindexes the subject and the VP.<sup>12</sup> One effect of the Predication rule is that the predicate inherits the subject's index. We hypothesize that it also inherits the subject's morphosyntactic features. Both the indices and features will percolate down onto the head of the predicate as well as onto the operator. Consequently, at LF the structure of a sentence like (4a) will be as in (13) (omitting irrelevant details):



11. My arguments for claiming that the anaphors correspond to operators are semantic in nature. This does not make them invalid or trivial arguments. However, for those who would claim that only syntactic evidence can be brought to bear in a syntactic analysis (a claim I would vigorously dispute) I merely point out that the syntactic support for the analysis comes from its ability to account for the fact that the anaphors display (1), and are associated with external arguments, and have different properties when found in NPs and PPs as opposed to VPs and APs. In other words, the syntactic justification comes from the fact that the account explains syntactic properties of reflexives.

12. We ignore here any possible differences between Williams' Predicate Form and Logical Form.

Making a slight aside, notice that the reflexive operator bears the same index as the subject but also agrees with it. This agreement results from the percolation of indices and morphosyntactic features. Nonetheless, we hypothesize that the form of the reflexive is not the result of a spellout rule. Rather, all English reflexives are inherently specified for the inflectional features of person, number and gender (presumably because they are derived from pronouns + *self*, the pronouns being inflected for the same features).<sup>13</sup> We shall also hypothesize that English reflexives are inherently marked for Case — objective Case — although this feature will not be transmitted via percolation.<sup>14</sup> Consequently, should the inherent features of the reflexive not agree with those features transmitted by percolation from the operator, an illegitimate structure will result. Sentences like (14) will then be excluded as anaphor reflexives<sup>15</sup> since the features which percolate onto the reflexive operator as a result of Predication do not match its inherent features:

- (14) a. \*John saw herself.  
       b. \*I saw himself.  
       c. \*We saw yourselves.

The grammar will reject structures producing these strings if they contain reflexive operators. This exclusion, however, does not mean the strings are never generated. They could arise with non-anaphor reflexives, if there were some mechanism in the grammar which allowed the operator reflexive to lose its operator status. We propose, following Guéron (1981), that all operators are subject to an optional rule of Operator Reduction which changes the feature specification of the Operator from +Q to -Q. The reflexive bearing the feature -Q at LF will be interpreted as being referential (subject possibly to interpretive rules of discourse). Its status as a referential expression does not entail, however, that it is a pronominal. It cannot be

13. This is not a universal property. Many languages have reflexives which are invariable third person nouns which may or may not contain possessive or genitive pronouns coreferential with the antecedent. Notice too that reciprocals never agree with their antecedents, so that agreement cannot be derivative of anaphoricity.

14. As a general principle, we hypothesize that Case is either inherent or directly assigned by rule. It will not be inherited by general percolation conventions.

15. Observe that since anaphors do not refer, the explanation for the unacceptability of (14) must hinge on the lack of agreement and not, say, on the inability of 3rd person pronouns to refer to the speaker.



since it lacks the appropriate feature specification, namely + Pronominal, -Anaphor. The non-anaphor reflexive will thus never be subject to (2d) since the Binding theory cannot apply to it. This seems correct. We can say that the Binding theory is simply irrelevant to the interpretation of the non-anaphor reflexives. Notice too that lack of agreement between the external argument and the reflexive is precisely what arises in (3a-f,i), (5b-d,g-i) and the free variable interpretations of (8). Consequently, in instances where the reflexive does not agree in its features with the subject, it will necessarily be interpreted as a non-anaphor.

Returning to the anaphor contexts, consider now the variation between (10a) and (10b), repeated here:

- (10) a. Bennie believed herself to have won the prize trip.  
 b. \*Bennie believed that herself won the prize trip.

Following the usual assumptions, we hypothesize that (10a) is a context for Exceptional Case-marking, across an S boundary.<sup>16</sup> The reflexive in (10b), in contrast, is contained in an S'. Movement of the operator from the subject position of the infinitive will be possible, but will be blocked in (10b) because the trace left behind will not be properly governed, AGR not being a proper governor.

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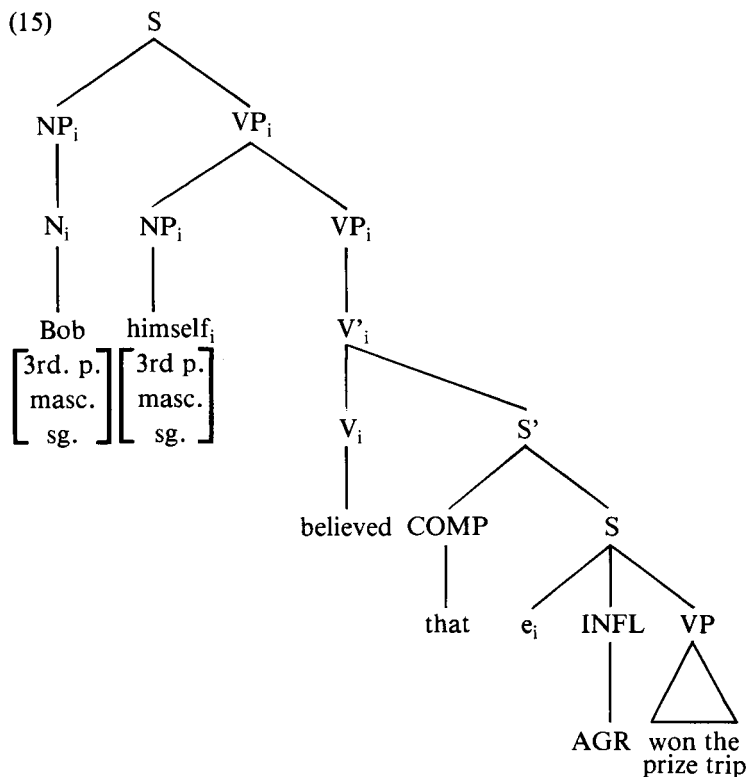
16. Something has to be said about the verb *want*. All speakers accept (ia) as equivalent to (ib) on at least one interpretation. Many speakers reject (ic), which is what we expect if (ic) involves a non-anaphor reflexive:

- (i) a. John wanted to leave.  
 b. John wanted himself to leave.  
 c. John wanted for himself to leave.

The question is: what is the status of the reflexive in (ib)? The sentence seems best in a contrastive context (*John* as opposed to someone else), which may influence the interpretation. According to our criteria, the sentence without a complementizer involves an anaphor. My judgements are, however, very unstable in these particular cases:

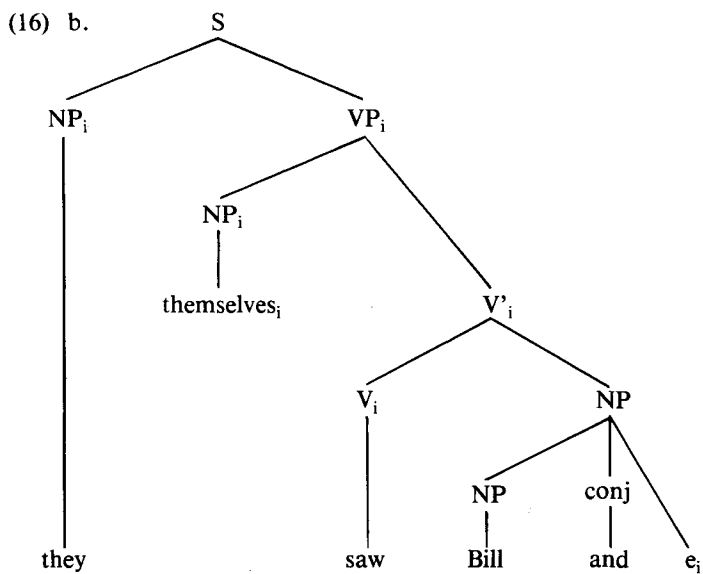
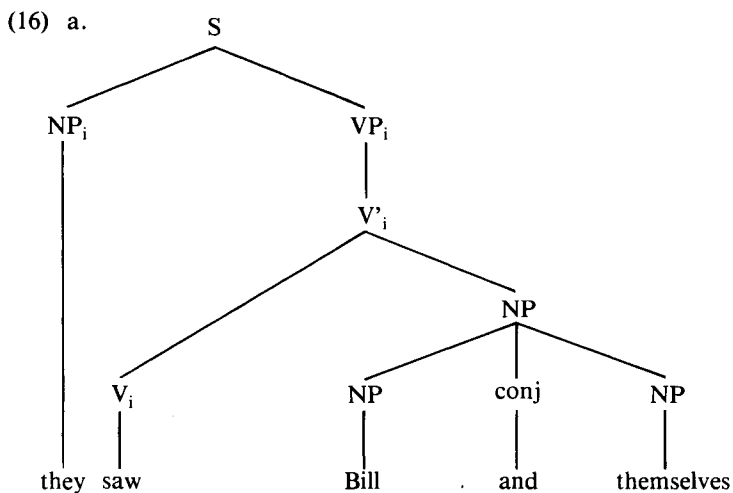
- (ii) a. ?? As for you, John wanted yourself to leave.  
 b. ?? I told you that John wanted yourselves to leave.  
 c. John wanted himself to leave, and so did I.  
     = I wanted myself to leave.  
     = ??I wanted John to leave.

This suggests that (ib) is a context for Exceptional Case-marking despite the impossibility of passive from the subject position. Cf. Chomsky (1981) Bouchard (1983).



The trace of the reflexive is therefore not properly governed violating the Empty Category Principle.<sup>17</sup> Similarly, operators will not be extractable from conjoined NPs within the VP since V will govern the maximal NP but this NP also forms a maximal projection which will prevent government of any traces contained within the individual conjuncts. Hence sentences like (8d) and (9b) must contain non-anaphors, which arise if Operator Reduction applies at LF producing (16a) rather than (16b):

17. For an approach which eliminates the ECP, cf. Bouchard 1982.



Extraction from within a PP will be blocked because the trace of the operator will not be properly governed, on the assumption (Bouchard 1982) that prepositions are not proper governors. What this means is that anaphor

reflexives can arise only where the complement is a direct object, or the object of a “dummy” preposition which actually is part of the verb.<sup>18</sup> Thus the reflexive in (12a) is an anaphor but the reflexive in (12b) is not. The anaphor interpretation is impossible in (17a) because the features of the indirect object don’t match those of the subject; a non-anaphor interpretation is possible for (17b):

- (12) a. Bob talked to himself about Jane.
- b. Bob talked to Jane about herself.
- (17) a. \*John spoke to herself about Chantal.
- b. John spoke to Chantal about himself.<sup>19</sup>

To sum up, we have provided an analysis of anaphor reflexives which treats them as operators which chomsky-adjoin to VP at LF and receive the index and the morphosyntactic features of the subject once the Predication Rule has operated. Operators must therefore agree with the external argument of the predicate in terms of their morphosyntactic features. In the unmarked case, the reflexive will be bound to and agree with the subject. Movement of the operator must be consistent with the ECP. It follows from the analysis that anaphor reflexives will always have an antecedent since (a) movement of an operator out of an A-position will necessarily occur, and (b) Predication is obligatory. The antecedent will always c-command the reflexive since the external argument must c-command its predicate. There can be only one antecedent for the anaphor reflexive since the predicate can only be indexed once. The analysis makes some interesting predictions with respect to the location of the anaphors. We turn to a discussion of these predictions immediately.

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18. We leave open the possibility that reanalysis can operate to increase the contexts where anaphors occur in VP, cf. Hornstein and Weinberg (1981) and Kayne (1981).

19. One question which remains is why (i) should still be unacceptable on a non-anaphor reading:

- (i) \*Bob spoke to herself about Jane.

A partial answer to this question comes from noting that non-anaphors are not readily used as cataphoric elements, as we shall show below. Their reference is normally established in discourse prior to their use. It should also be pointed out that in (i) the proper name would be preceded and c-commanded by an independently referential expression. Were they to be coindexed, the name would violate constraints requiring that it be interpreted uniquely (Higginbotham 1983).

## 2.2 *Reflexives in VP and NP*

Recall that we stated that many languages allow the reflexive to be linked only to a subject. Such languages permit only the anaphor reflexives. We also stated that the appropriate characterisation of the antecedent was not in terms of "subjecthood" but rather as the external argument of the predicate containing the reflexive. To see that this is the case, consider the differences in reflexives in VPs and NPs. We have already shown that non-anaphor reflexives occur freely in NPs. We repeat the facts below:

- (18) a. His pictures of myself were everywhere.  
       b. My rude laughing at just himself<sub>i</sub> upset John<sub>i</sub> very much.  
       c. He<sub>i</sub> thought that your<sub>j</sub> pictures of yourselves<sub>i+j</sub> were awful.

The sentences in (18) show that NPs can contain a subject (the possessive NP) and yet the reflexives which follow are non-anaphors. Compare the acceptability of (18) with the unacceptability of (14). Our analysis predicts that any reflexives which appear in NPs will be non-anaphors. This is because the Predication Rule does not operate in NPs to link the possessive NP and direct object complements of the N.<sup>20</sup> So the relevant fact is not that the antecedent is a subject, since both NPs and Ss can contain subjects. Rather, what is relevant is the indexing of the reflexive to the external argument via the combined operations of operator-raising and the Predication rule. Both operator-raising and Predication can occur in VP domains. Neither can occur in NP.

Notice that problems remain with our account of the anaphors in NPs. It is well-known that NPs with no determiner freely lend themselves to the appearance of reflexives violating locality conditions (and we claim, as a result of this, that the said reflexives are non-anaphors). Nonetheless, the presence of a possessive seems to preclude free reference for a third person reflexive:

- (19) a. \*John's<sub>i</sub> stories about himself<sub>j</sub> upset Peter<sub>j</sub> a whole lot.  
       b. \*John's<sub>i</sub> stories about even himSELF<sub>j</sub> upset Peter<sub>j</sub> a whole lot.

20. There is an external argument to the noun head of the NP but it is not the possessive NP (cf. Williams 1984).

We would like to make the observation that when prior discourse establishes the referent of the reflexive (i.e. it is anaphoric rather than cataphoric as in (19)), then the results are somewhat better:

- (20) ?I saw Peter<sub>i</sub> after the party. He was very angry too. It seems that John's<sub>j</sub> stories about himself<sub>i</sub> had really upset him<sub>j</sub>.

We have no account of this difference in grammatical terms but it may be that the problem arises for reasons of parsing. Following Berwick and Weinberg's account of parsing, the internal structure of the subject NP *John's stories about himself* will be unavailable when the verb's complements are parsed. But when parsing the NP a local subject is available and a representation can be constructed without looking further. Only when a local association is impossible (because of feature clashes, because there is no antecedent or because the parse is incompatible with what the hearer believes to be true) would the parser look outside the NP for an antecedent. In (19), there is no context to interfere with a local assignment of indices to the non-anaphor reflexive within the NP. In (20), however, the context tells the hearer that Peter is angry and that John's stories are the cause. One can readily assume that Peter might be angry about stories that are about Peter, human ego being what it is. It remains to be seen if the above account of (19) and (20) is correct but it is worth reminding the reader that anaphor reflexives are not susceptible to this kind of influence of context in their interpretation.

### 2.3 Reflexives in APs

Now consider the case of the reflexives in APs following the copula. We saw above that these reflexives are anaphors, despite the fact that a maximal projection separates the reflexive and the subject. But consider that in the case of APs, the Predication rule directly coindexes the AP with the subject. Recall that the Predication Rule operates in the following contexts:

- (21) a.  $NP_i VP \rightarrow NP_i VP_i$   
 b.  $NP_i be XP \rightarrow NP_i be XP_i$   
 c.  $NP_i VP XP \rightarrow NP_i VP XP_i$

The first set of cases that we examined all fell under (21a). The sentences in (11), however, fall under (21b). We can extend the operator raising to allow

the reflexive operator to be chomsky-adjointed to the AP (*be* will, of course, be located under INFL). Hence the reflexive will be coindexed to the external argument and agree with it.

We hypothesize that the adjunct of (4e) (namely *Georgia ate the ice cream herself*) comes under (21c). We propose adding rule (22) to the instances of Predication to account for (4f):

$$(22) \quad N'_i \text{ XP} \rightarrow N'_i \text{ XP}_i$$

Having laid out the analysis of anaphor and non-anaphor reflexives in English (we stress that this is a sketch and not a complete discussion), we shall now show how the same analysis can explain properties of French reflexives.

### 3. Reflexives in French

French exploits three different possibilities for the expression of reflexivity. First of all, there is the clitic *se* which can correspond either to a direct or an indirect object (we ignore the first and second person pronouns since they are ambiguous between reflexive and referential uses). Examples appear in (23):

- (23) a. Jean *se* voit. (compare *Jean voit Marie*)  
           'John self sees'.  
       b. Jean *se* parle. (compare *Jean parle à Marie*)  
           'John self speaks to'.

The clitic renders the core cases of reflexivity in French. The clitic behaves like an anaphor and has the properties of (1) : it must be linked to an antecedent; the antecedent must c-command the clitic; the antecedent is unique; the antecedent and the clitic occur in a local domain:

- (24) a. \*Je *se* vois. (compare *Je le vois*)  
           'I self see'.  
       b. \*Je *se<sub>i</sub>* parle à propos de Marie<sub>i</sub>.  
           'I self<sub>i</sub> speak about Mary<sub>i</sub>'.  
           (compare *Je lui<sub>i</sub> parle à propos d'elle<sub>i</sub>*)  
       c. \*Marie<sub>i</sub>, il<sub>j</sub> *se<sub>i+j</sub>* parle, à elle<sub>j</sub>.  
           (compare *Marie<sub>i</sub>, il<sub>j</sub> lui<sub>i</sub> parle d'eux<sub>i+j</sub>*)

- d. \*Jean<sub>i</sub> dit que Marie<sub>j</sub> se<sub>i</sub> parle.

In fact, the restrictions on the reflexive clitic are even more severe : it must be linked to the subject (cf. Kayne (1975) for a general discussion of the properties of *se* and the other clitics):

- (25) a. L'esclave<sub>i</sub> se<sub>i</sub> vend.  
           'the slave self sells'.  
       b. L'esclave<sub>i</sub> se<sub>i</sub> vend à lui-même<sub>i</sub>.  
           'the slave self sells to himself'.  
       c. \*L'esclave<sub>i</sub> se<sub>j</sub> vend à lui(-même)<sub>j</sub>,  
           'the slave to self sells self.

A second type of reflexive in French is expressed by the strong forms of the pronoun *lui/elle*:

- (26) a. Arthur<sub>i</sub> a toute l'équipe avec lui<sub>i</sub>.  
       b. Arthur<sub>i</sub> est fier de lui<sub>i</sub>.  
       c. Arthur<sub>i</sub> pense d'abord à lui<sub>i</sub>.

The strong form of the pronoun does not conform to (1), rather it has the properties of the non-anaphors in that it has most of the properties associated with referential pronouns but it is not required to be free in its minimal governing category, as (26) amply illustrates. Thus, the strong form of the pronoun does not have to be connected to an NP; need not have a c-commanding antecedent; can have split antecedents; is not required to be in the same local domain as its antecedent:

- (27) a. Arthur<sub>i</sub> est fier de lui<sub>j</sub>.  
       b. Arthur aime bien Marie<sub>i</sub>. Il est fier d'elle<sub>i</sub>.  
       c. Arthur<sub>i</sub> aime bien Marie<sub>j</sub>. Il<sub>i</sub> dit qu'il<sub>i</sub> est fier d'eux<sub>i+j</sub>.

A third type of reflexive consists of the pronoun + *même* form. These reflexives also have the properties of non-anaphors:

- (28) a. Jean<sub>i</sub> le croyait; lui-même<sub>i</sub> devait gagner.  
       b. Jean<sub>i</sub> a eu une conversation avec Pierre<sub>j</sub> et apparemment  
           jamais Marie<sub>k</sub> n'épousera un autre homme que lui-  
           même<sub>i/j</sub>.



- c. En ce qui concerne Marie<sub>i</sub>, Jean<sub>j</sub> n'a questionné Pierre<sub>k</sub>  
que sur eux-mêmes<sub>i+k/j+k</sub>.
- d. Pour Marie<sub>i</sub>, Jean<sub>j</sub> a fait une photo exclusivement d'eux-  
mêmes<sub>i+j/i+k</sub>.

Sentence (28a) shows that the *même* reflexive can appear referentially. Sentences (28a and b) show that it can occur when the antecedent does not c-command, and is outside of the local domain. Sentences (28c-d) shows that the form can have split antecedents. Furthermore, although there are certain restrictions on the *même* forms which prevent them from freely referring deictically or coreferring with any discursively available NP, Kayne (1975) has clearly demonstrated that the clitic reflexive and the *même* reflexive are unrelated (cf. Kayne (1975) for further discussion and examples).

Zribi-Hertz (1980) has discussed, in some detail, the two strong forms of the reflexive as well and has argued rather persuasively that the possibility of local association or connecting being established between the simple pronoun and the subject of the same clause (for example, in violation of Binding Principle B which would require the pronoun to be free in its minimal governing category) depends entirely upon the nature of the predicate in which the pronoun occurs. Thus whenever, the predicate forces coreference between its arguments by its very meaning, there the pronoun will occur. When the predicate does not force coreference, then the *même* will be used. So the occurrence of the strong and *même* forms depends upon semantic and pragmatic factors involving expectations of appropriateness to the situation. This is precisely what we would expect if these forms are non-anaphors. We conclude that French, like English, has both anaphor and non-anaphor reflexives, that is to say that French has anaphoric expressions which can have a reflexive function but which do not conform to (1) and do conform to (2) and whose interpretation, furthermore, depends upon extragrammatical knowledge. Unlike English, however, there is a clear distinction in French between the *forms* of the reflexives. In English, both anaphor and non-anaphor reflexives are realised by the same word.<sup>21</sup> In French, the strong forms of the pronoun and the pronoun + *même* express the non-anaphor while the clitic is always an anaphor. This is an interesting observation since in English Operator-reduction applies to the

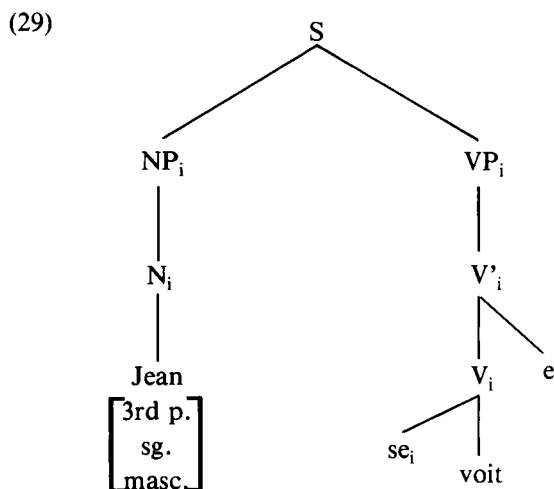
21. The English reflexive has resulted from an earlier pronoun reflexive which became joined to the intensifier noun *self*.

Operator to create the non-anaphor. Why should French not also have a non-anaphor *se*? We now turn to a discussion of the derivation of the reflexives and an explanation of their respective properties.

#### 4. Deriving French reflexives

##### 4.1 Clitic reflexives

We hypothesize that *se* is an operator. However, unlike the English reflexive operator it is unaffected by movement in LF. This is because it is positioned in the syntax, prior to S-structure. We shall assume that the preverbal complement clitic is attached to V. Whether they are lexically-derived as such (cf. Grimshaw 1982) or moved into position (as in Kayne 1975) is irrelevant to our concerns. We will assume a relationship between the clitic and a post-verbal empty category. The structure of (23a) will be (29) at S-structure:



Now observe that (29) resembles the LF representation in (13). In other words, the location of the clitic preverbally mirrors at S-structure the LF

operation of Quantifier Raising (*se* and the empty category will be coindexed; indices have been omitted to simplify). The clitic will thus inherit the index and the features of the subject at LF once Predication occurs. We thus account for the absence of (30):

- (30) a. \*Jean<sub>i</sub> se<sub>j</sub> voit.  
 b. \*Jean<sub>i</sub> se<sub>j</sub> parle à Marie<sub>j</sub>.<sup>22</sup>

Thus the fact that *se* can be c-commanded by various NPs is irrelevant, as it is for English *proself*. What matters is that *se* be linked to the external argument of the predicate; something accomplished in French by cliticization, and the percolation of features at LF through Predication. It is important that the antecedent match the clitic for third person features; sentences (31) are unacceptable as predicted:<sup>23</sup>

- (31) a. Je<sub>i</sub> se<sub>i</sub> vois.  
 b. Nous<sub>i</sub> se<sub>i</sub> voyons.

Now consider what would happen if Operator-reduction altered the feature specification of *se* at LF, prior to Predication. In English, such a change would prevent movement of the reflexive.<sup>24</sup> In French, however, the reflexive is already positioned when Operator reduction applies. When Predication occurs, the reflexive clitic will still receive the index and features of the subject. It cannot escape the percolation process. So *se* must always be connected to the external argument of the predicate. It can never be a non-anaphor.

#### 4.2 *Lui/lui-même*

The data in (27) and (28) suggest that the strong forms of the reflexive are not operators. Let us hypothesize that they bear a minus specification

22. We assume that those *à* PPs giving rise to dative clitics are in fact NP complements to a verbal complex consisting of the string ...V... *à*...NP, cf. Rouveret and Vergnaud (1980).

23. Only the operators will inherit features and indices. The referential clitics will not have an operator feature and will be impervious to percolation.

24. The English reflexive must be stressed. It cannot undergo stress reduction as the pronoun can. This prevents the reflexive from being phonologically cliticised onto the verb. Note that cliticisation in English (unlike French) takes place in the phonology and cannot affect operations in LF.

for the operator feature (or, equivalently, no specification at all). As such they will not be subject to raising at LF, and will be freely-indexed. Notice that the forms do not bear a specification such as + Pronominal, -Anaphor. They are not subject to the binding theory of Chomsky (1981, 1982). In this our analysis follows closely the observations made in Zribi-Hertz (1980). Thus, we account for the fact that both *lui* and *lui-même* do not exhibit the properties of (1). We have not, of course, offered an account of the complete distribution of the two forms. Such an account would require a full analysis of the semantics of *même*; a task which goes beyond the objectives of this paper. We would simply like to point out that *même*, like *self*, has a disambiguation function which makes it appropriate for use with a referential expression (the pronoun).

#### 4.3 APs

The clitic *se* can only be attached to verbs so there are no anaphor reflexives in French comparable to *John was true to himself* (cf. (11)). As Kayne (1975) notes, the following are all ungrammatical:

- (32) a. \*Jean<sub>i</sub> s<sub>i</sub>'est infidèle.  
       b. \*Marie<sub>i</sub> se<sub>i</sub> sera livrée par ses<sub>i</sub> amis.  
       c. \*Elle<sub>i</sub> s<sub>i</sub>'est fière.

Rather we get (33):

- (33) a. Jean<sub>i</sub> est infidèle à lui-même<sub>i</sub>.  
       b. Elle<sub>i</sub> est fière d'elle<sub>i</sub>.

Since the strong forms are not operators, they cannot be raised by Operator-raising. When predication coindexes the subject and the AP, the pronouns will not receive the subject's index and features since a maximal projection will intervene between the NP and the AP, namely PP:

- (34) a. Elle est fière<sub>PP</sub>[d'elle]  
       b. Jean est amoureux<sub>PP</sub>[de lui-même]

The pronouns will be freely indexed.<sup>25</sup> Once again, we attribute the limitations on the referential possibilities of the */même* form to the semantics of

25. With distribution being subject to the type of pragmatic considerations discussed in Zribi-Hertz (1980).

that expression. Thus, while it may be difficult or even impossible to construct a context where (34b) could involve a form disjoint in reference from the subject, this fact will follow from the semantics of *même* and not from any grammatical principles concerning its distribution.

#### 4.4 NPs

Since there is no clitic possible on NPs, reflexives contained in that category will always be non-anaphors:

- (35) a. Sa<sub>i</sub> confiance en elle<sub>j</sub> surprenait même Marie<sub>j</sub>.  
 b. Son<sub>i</sub> emprise sur elle-même<sub>j</sub> surprenait surtout Marie<sub>j</sub>.

Once again we note that there may be many contexts where the intensifier form *même* must be construed within the NP but this follows from its semantic properties and not from grammatical principles.

### 5. Conclusions

In this paper, we have shown that French, like English, has two semantic types of reflexive expression. One type, the clitic, is an anaphor. The other type is a non-anaphor. In English, both types are realized through the same word *proself*. In French, in contrast, there are three distinct forms *se*, which corresponds to the anaphor, and *lui* and *lui-même*, which correspond to the non-anaphor type. In English, the distribution of the two types of reflexive is determined by the interaction of the rule of Operator Raising, Predication, Case restrictions on the reflexive (which require it to have Objective Case), and the rule of Operator Reduction. In French, the distribution of the two types of reflexive is due to cliticization, and Predication (and semantic properties of the form *même*). In both languages, the antecedent of the anaphor is the external argument of the predicate containing the operator, while the antecedent of the non-anaphors can be any NP (at least in principle). In both languages, the reflexives which occur in NPs and PPs are non-anaphors. In both languages, the non-anaphors occur rather freely (appearing even in subject position of tensed clauses), and possess most of the properties of simple pronouns. They are not, however, pronominals since they are not required to be free in any domain. Furthermore, we have argued that the fact that French (but not English) has a verbal clitic which is positioned prior to LF is sufficient to explain that *se* can only be an

anaphor, unlike *proself* which can undergo Operator Reduction even in direct and indirect object positions. Thus we find a number of distinct properties of the two languages coming together in complex ways to explain the similarities and differences in the properties of the reflexive system.

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