ON THE SYNTAX AND SEMANTICS OF LOCAL ANAPHORS IN FRENCH AND ENGLISH

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INTRODUCTION[*]

1. Local anaphors in French and in English have a variety of lexical and morhpological properties that are unexpected on conventional approaches to Binding Theory. We propose an account in which these characteristics follow from the fact that reflexives are essentially *pronominals*. On our approach, Principle B is the core of Binding Theory, and the surprising properties of local anaphors derive from the need for local anaphors to escape Principle B. We argue that all local anaphors are bimorphemic (sometimes in contrast to surface appearances), and that this structure is related to a semantics of 'partition' by which local anaphors escape Principle B. In support of these views we present a variety of facts that follow in a natural way from our syntactic and semantic proposals, but which to our knowledge have not previously been explained within the framework of generative grammar. Our theory is shown to have a modular character, comprising distinct contributions of Principle B, the morphological structure of local anaphors, and the broader architecture of human cognition.

ON THE LACK OF SAUSSUREAN ARBITRARINESS IN LOCAL ANAPHORS

2. Standard Binding Theory assumes a lexical distinction between pronominals and anaphors. On this traditional view, pronominals are subject to a disjointness constraint (Principle B), while anaphors are exempt from Principle B but subject to their own locality requirement (Principle A). Such an approach crucially assumes a lexically encoded categorial distinction between pronominals and anaphors.

It is remarkable, however, that if languages provide elements marked as anaphors in the lexicon, and if these elements are exempt from Principle B, that anaphors should be subject to the variety of severe restrictions observed in natural languages. For example, there are few, if any, languages with an anaphor completely unrelated, in its phonology and morphology, to either the pronominal paradigm or the agreement paradigm. This pattern is a source of puzzlement on standard approaches, because the inventory of anaphors in the lexicon should be subject to Saussurean arbitrariness.

Restricting ourselves to strictly local anaphors, the lack of arbitrariness is illustrated by French, where the following elements all involve, in one way or another, a pronominal or agreement element: (a) the so-called complex anaphor, *lui-même;* (b) the so-called pronominal clitics such as *nous* and *vous;* and (c) the reflexive clitic *se*. The complex anaphor is formed from the pronominal *lui*. The 'pronominal' reflexive clitics are identical in form to the corresponding pronominals. The reflexive clitic *se* is also related to the pronominal and agreement systems, as suggested, for example, by its etymological relation to the so-called impersonal *si* of Italian, which is often taken as involving a pronominal use of *si* akin to English *one*. A more direct relation of *se* to the pronominal paradigm is the phonological (and etymological) relationship of *se* to the third person singular possessive pronouns *son*, *sa*, and *ses* (see Benveniste (1969)).

Furthermore, across languages, the antecedent of an anaphor is often subject to constraints that have been stated in terms of animacy, agenthood, awareness, or point of view. (On the role of awareness in long distance anaphors, see among others Kuno (1987); on point of view, see Cantrall (1974).) These constraints, which have generally been formulated in pragmatic terms, are likewise a source of puzzlement on the standard view, because they do not derive in an obvious way from known principles of the grammar. For example, 1 illustrates the well-known animacy constraint on the French clitic *se* in its reflexive use:

(1)   a.   Jean se lave.

              'John washes himself.'

        b.   * La table se lave.

              'the table washes itself.'

The examples in 2 illustrate what we take to be a less readily observed property, namely that the reflexive clitic must have an agentive antecedent[1]:

(2)   a.   Jean se frappe.   (agentive)

              'John hits himself.'

        b.   ??Jean s'apprécie.   (non-agentive)

              'John likes himself.'

        c.   Jean se détache de la chaise.   (agentive)

              'John is untying himself from the chair.'

        d.   ?? Jean se connaît.   (non-agentive)

              'John knows himself.'

The agentiveness constraint observed in 2b,d is reminiscent of the awareness constraint discussed by Kuno and others for long-distance anaphora (and local anaphora involving anaphors in oblique positions), but, to our knowledge, has not previously been noted for local anaphoric relations (between a subject and a direct object).

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[1]   This constraint can be superseded, however, under certain conditions, notably when focus is applied to either the surface subject (*Jean*) or the predicate (*s'apprécie*) in 2b. (Addition of the modifier *beaucoup* also renders 2b acceptable, as will be discussed.) One explanation for the effect of focus would be that focus introduces a partition of the same type discussed in Section 3. This would account for the effect of focus in (i), where underlining indicates "coreference" and capitalization indicates a pitch accent. Yet, focus has more dramatic effects on possible binding relations than would be expected under a straightforward partition account, as illustrated by the example in (ii).

(i)   John thinks Mary likes HER/*her.

(ii)   John thinks Mary likes HIMSELF/*himself.

THE ROLE OF PARTITION IN LOCAL ANAPHORA

3. All of the above observations run counter to the predictions of the standard binding theory, and cast doubt on its accuracy. As an alternative, we propose, first, that there is no Principle A as such, and that Principle B, which is the core of binding theory, applies to both pronominals and anaphors. On this view, an anaphor can be understood as a type of pronominal whose internal structure allows it both to *approximate* coreference with a local antecedent, and at the same time to escape Principle B.

We will argue that local anaphors satisfy these conflicting requirements through a semantics of 'partition,' in which the anaphor is interpreted as related to, but distinct from, its antecedent. For example, in the case of the English anaphor *himself*, the morpheme *him* is interpreted as the same individual as the antecedent. Yet, the semantics of the morpheme *-self* causes the anaphor as a whole to be interpreted as an individual related to, but distinct from, the individual denoted by *him*. On our view, the necessity of creating a partition accounts for the lack of Saussurean arbitrariness in the form of local anaphors, including both the tendency for local anaphors to be morphologically complex, and the tendency for anaphors to bear a visible similarity to elements from the pronominal and agreement paradigms.

We have identified two principal types of partition that are compatible with local anaphora. One type of partition appears to divide an individual into an agentive aspect (the individual understood as the psychological agent of a reflexive action) and a physical aspect (the individual understood as the physical patient of the reflexive action). A second type of partition appears to distinguish the individual, understood as a conscious observer or possessor of knowledge, from the same individual understood as the object of knowledge. (We will present evidence that in the second type of partition, the object of knowledge is generally understood psychologically rather than physically.) These two types of partition are summarized in 3.[2]

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[2] We do not, however, intend 3 as an exhaustive list. The task of characterizing the class of semantic partitions compatible with local anaphora is an on-going research project. A possible third type, in addition to 3a,b, is the partition between an individual understood as a source and that individual understood as a goal. Such a partition may be responsible for the acceptability of examples such as (ia,b).

(3)   a.   Agent (Psychological) vs. Patient (Physical)

        b.   Knower (Psychological) vs. Object of Knowledge (Psychological)

Thus in 4, the NP *John* is understood psychologically, as the agent of hitting, while the NP *himself* is understood physically, as the patient.

(4)   John hit himself.

        In 5, the predicate *likes* is non-agentive, and so the anaphor *himself* 5b cannot be dependent on the type of partition in 3a. Instead, we argue, Principle B is satisfied in 5b by the partition of John into 'knower' and 'object of knowledge' 3b. We take the English verb *likes* to be ambiguous between a reading in which the subject's positive attitude towards the object is based on knowledge about the object, and a reading in which the reason for the subject's positive attitude towards the object is left vague. When the object is non-reflexive, both readings are possible, as in 5a.

(5)   a.   John likes Mary, but he doesn't realize it.

        b.   John likes himself (?* but he doesn't realize it).

When the object is a reflexive, however, the conscious-knowledge reading is obligatory, as illustrated by the anomalous nature of the parenthetical clause in 5b. This follows because the reflexive, with a non-agentive antecedent, depends on a partition of the type in 3b.

        In French, the conscious-knowledge reading of English *like* can be unambiguously expressed by the predicate *apprécier beaucoup*, as illustrated in 6a.

(6)   a.   ?* Jean apprécie beaucoup Marie, mais il ne le sait pas.

              'John likes Mary, but he doesn't know it.'

_____

(i)   a.   John talks to himself.

        b.   John sent a letter to himself.

An interesting possibility is that the relevant types of partition can be expressed entirely in a more restricted vocabulary of "thematic roles," such as those assumed in Hale & Keyser (1993) or Gruber (forthcoming), but this remains a direction for future research.

b.   Jean s'apprécie beaucoup.

'John likes (what he knows about) himself.'

(Conscious knowledge implied)

As expected, the reflexive (6b) is fully grammatical with this predicate.

French provides several other predicates corresponding roughly to English *like*. The verb *aimer bien* is ambiguous between the conscious-knowledge reading of *like* and the reading in which conscious knowledge is not implied, while the verb *aimer* alone preferentially corresponds to the latter reading only. As expected, 7a is fully acceptable, while 7b is anomalous.

(7)   a.   Jean s'aime bien.

'John likes (what he knows about) himself.'

(Conscious knowledge implied on the relevant reading)

b.   ?? Jean s'aime.

'John likes himself.'

(Conscious knowledge not implied)

It should be noted that the judgements in 6 and 7 are somewhat delicate, and are sensitive both to individual variation in lexical semantics and to possible effects of focus. Nonetheless, the same patterns can be observed with a variety of non-agentive verbs, and are completely unexpected on the standard binding theory, where similar effects have generally been taken as falling outside of the grammar. For example, the sentences in 8, involving two senses of the verb *know*, are exactly parallel to the observations in 6 and 7.

(8)   a.   John knows Mary, but he's momentarily forgotten.

b.   John knows himself (?* but he's momentarily forgotten).

c .   Jean se connaît ?? (bien).

'John knows himself.'

In 8c, *connaître bien* is again ambiguous as to whether conscious knowledge is implied, but *connaître* alone does not clearly imply conscious knowledge on the part of the subject.

Interestingly, the precise set of semantic partitions with which local anaphora are compatible is considerably more restricted than the full set of partitions that one could, in principle, impose on an individual. An example is given in 9.

(9) a. John hit his body.

b. John hit himself.   (physical)

c. John likes his body.

d. John likes himself.   (psychological/??physical)

Examples 9a and 9b are at least approximately equivalent, as we expect if the partition in 9b=4 is between John understood as a psychological agent, and John understood as a physical patient.

We might reasonably expect a partition into psychological and physical aspects to enable 9d to have approximately the same interpretation as 9c, but this expectation is at most partially borne out. The English-speaking informants whom we have consulted find 9d relatively odd on an interpretation in which *himself* is understood physically. Thus, we specify in 3b that the relevant partition is between an individual as 'knower' and an individual as 'object of knowledge,' in *both* cases understood psychologically. We propose that the restricted set of partitions found with local anaphora may reflect significant properties of human cognitive architecture, potentially of relevance to much more than binding theory, and for the present we content ourselves with a description rather than an explanation. For present purposes, we simply take the anomalous character of the 'physical' reading in 9d as another indication that local anaphora are restricted in ways that are unexpected on the standard binding theory, but that are compatible with a partition analysis.

Further support for the role of partition in local anaphora comes from the incompatibility of certain experiencer-object verbs with the reflexive. For example, the contrast in acceptability of 10a,b versus 11a,b corresponds to the degree to which the surface subject of these predicates is understood as an object of (the experiencer's) knowledge. This interpretation of the evidence is supported by the contrast in acceptability of 10c versus 11c, on the reading in which it is the information that *Mary* knows about *John* which bothers, annoys, frightens, or worries her.

(10)   a.   ?* John bothers himself.

        b.   ?? John annoys himself.

        c.   The more Mary learns about John, the more he ?*bothers/??annoys her.

(11)   a.   ? John frightens himself.

        b.   ? John worries himself.

        c.   ? The more Mary learns about John, the more he frightens/worries her.

While the precise degree of ungrammaticality of the examples in 10 and 11 is difficult to assess, and undoubtedly varies across speakers, we expect that the relative grammaticality of examples such as 10a,b and 11a,b will be correlated with the grammaticality of corresponding examples of the form in 10c and 11c.

Again, the facts in English are highly similar to those of French. In 12a,b we find a contrast between the approximate equivalents of *annoy* and *worry,* in which the former more strongly resists the reflexive. (Here, we are specifically evaluating 12a,b on the readings in which they are *not* inherent reflexives; we are thus excluding the alternate reading, 'John is becoming annoyed/worried.') This contrast is paralleled by the contrast in acceptability of the two predicates in 12c.

(12)   a.   ?* Jean s'ennuie.

              'John annoys himself.'

        b.   ?? Jean s'inquiète.

              'John worries himself.'

        c.   Le plus de choses Marie apprend sur Jean, le plus cela ?? l'inquiète / ?* l'ennuie.

              'The more Marie learns about Jean, the more this worries/annoy her.'

The evidence from experiencer-object predicates as in 10, 11, and 12 is especially interesting because in 11a,b the anaphor *himself* expresses the 'knower' rather than the object of knowledge. This suggests that the semantics of *-self* is relatively general, making reference to a contextually available partition, but allowing the interpretive component to fill in the details. Below we will propose a modular view of local anaphora, comprising independent roles for a disjointness condition (Principle B), the lexical semantics of *-self* (or its approximate equivalents in other languages), and the varieties of partition allowed by the cognitive architecture.

THE FORMAL SEMANTICS OF PARTITION

4. We find it interesting to note that in the preceding discussion, philosophical notions such as the *de se* /*de re* distinction have played a tacit role (cf. Lewis (1970), Castañeda (1967), (1975), and Quine (1955) among others). We suggest not only that such philosophical notions may be relevant to the proper understanding of linguistic phenomena, but also that many of the philosophical questions, including questions about the concepts of mind and body, about the concepts of person and identity (cf. Quine (1955), Lewis (1970), and Castañeda (1967), (1975) among others) may have an unrecognized source in the phenomena of natural language (the semantics and syntax of partition in particular).

In particular, there exists an interesting and extensive philosophical literature on the concept of 'self,' which is suggestive in light of our approach to local anaphora. A widespread observation in this literature is that the term 'self,' which originates as a nominalization of the *-self* from local anaphors, is invoked precisely when there is a real or apparent *contradiction* between two roles that are performed by a single individual. This is surprising on a view in which the concept of 'self' expresses something more like integral/defining/persistent properties of an individual, for example. Yet, the observation is precisely what we should expect if the noun *self* derives its meaning from the semantics of the reflexive morpheme *-self,* and if *-self* has the semantic function of specifying some aspect of an individual that is related to, but distinct from, a second aspect of the same individual.

In this connection it is also interesting to note that a remarkable number of languages use, in the formation of local anaphors, a morpheme that ordinarily denotes a body-part: Hebrew 'bone', Hausa 'head', Basque 'head', and so forth. This strikes us as natural on an account in which many uses of local anaphora depend on a partition between psychological and physical aspects of an individual, because a body-part relates both to the physical body and, as an inalienable possession, to a psychological possessor.

We can represent the semantic contribution of the English morpheme *-self* as in 13, where we assume an extensional semantics for ease of exposition.

(13) $\| \textit{-self} \| = f: D_e \rightarrow D_e$

For any x an element of the domain of individuals, where x denotes a contextually salient 'aspect' of

a person or object, f(x) denotes a salient, *distinct* aspect of the same person or object.

The important points about the characterization in 13 are first that *-self* requires an individual-type argument corresponding to the morpheme *him* in *himself*, and second that the result of combining *-self* with its argument is an element, drawn from the domain of individuals, which denotes an 'aspect' of a person or object.[3] A further point is that the denotation of *-self* does not directly determine the type of partition that allows the anaphor to satisfy Principle B. Instead, the denotation in 13 makes reference to the partition, if any, that is made contextually salient by the semantics of the other lexical items in the sentence.

We propose a slightly different analysis of the French local anaphor *se*. In the case of *se*, we are again led to a bipartite structure analogous to that of English *himself*. We take the surface form *se* to correspond to an underlying structure of the form [se ø], where *se* corresponds to *him* and ø corresponds to *-self*. In contrast to English, however, the null counterpart of *-self*, on our account, has a semantics closer to that given by Heim, Lasnik, and May (1991) for the English morpheme *other*. [4] We represent the proposed meaning as in 14.

(14) $\| \text{ø} \| = f: D_e \rightarrow D_{<et,t>}$

For any x an element of the domain of individuals, and any predicate g mapping individuals to truth

values, f(x)(g) is true if and only if, for every y in the domain of individuals, distinct from x, and in a

discourse-supplied context set containing x, g(y) is True.

For present purposes, an important characteristic of 14 is that the semantics of the element ø does not make reference to 'aspects' of a single individual, but is instead stated in the more general terms of a partition on a set. In the case

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[3]   Here we allow the antecedent of a local anaphor to be an inanimate object, although in many cases this will be ruled out by the nature of the available types of partition. For example, both of the partitions in 3 would seem to be incompatible with an inanimate object. Yet, there may exist other available types of partition that would not impose this constraint. Alternatively, it may turn out that apparent anaphors such as English *itself* have a status distinct from "true" reflexives, as might be inferred from the fact that *itself* was first attested in English more recently than the other reflexive forms, and also by the animacy constraint on reflexives in French.

[4]   The interpretation we propose is also reminiscent of the French word *partie*, which in its various uses can denote a person, a (sub)set of individuals, or a body-part, as suggested by the following expressions: *la partie adverse* 'the opponent', *les parties en présence* 'the parties present', *d'autre part* 'on the other hand', *à part* (exclusion) 'separately'.

of the reflexive the difference from *himself* is not apparent, but the more general semantics has the effect of allowing reciprocal, neuter, and middle uses of *se* that cannot be formed with *himself*. In the reflexive, the relevant set contains the two salient aspects of an individual. Another important characteristic of 14, as distinguished from 13, is that 14 incorporates the semantics of a universal quantifier. This quantifier has no effect in the reflexive, but is motivated by the semantics we assume for reciprocal and neuter uses of *se*.

We will set aside the middle and neuter uses of *se*, and limit ourselves to a few brief remarks on the reciprocal. Given the semantics for the null reflexive morpheme in 14, we can readily derive the reciprocal meaning of 15:

(15)   Les enfants se regardent.

'The children are looking at each other.'

Following Heim, Lasnik, and May (1991), we assume that the DP *les enfants* in 15 is associated with a null distributive operator D, semantically analogous to the overt element *each*.[5] We take the relevant partition in 15 to be between any given member of the set of children, and the rest of the set. The universal quantifier in 14 ('for every *y*') ensures true reciprocity:

(16)   For each child *x*, for each child *y* distinct from *x*, *x* is looking at *y*.

Example 15 also has reflexive readings, which we derive (in the case of the distributed reflexive) by taking the relevant partition to be internal to each child, or (in the case of the collective reflexive) by taking the relevant partition to be a partition into 'group as knower' and 'group as object of knowledge.'

A striking piece of evidence in favor of the semantics in 14, and in favor of our 'partition' approach more generally, is that in the reciprocal (15), the partition between a distinguished element (x) of the set, and the remainder of the set, eliminates any need for a partition of the type that is found with reflexives (cf. 3). Thus, a sentence of the type, 'Les enfants se connaissent' ('The children know each other'), is perfectly grammatical on a reciprocal interpretation. The same sentence is disallowed on either a collective or a distributed reflexive reading, because the lexical semantics of *connaître* does not implicate a partition of the type expressed in 3a,b.

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5   Alternatively, the semantics of distribution may be encoded in the determiner *les*. On such an approach, *les* would be lexically ambiguous, with distributive and non-distributive lexical entries.

THE SYNTAX OF LOCAL ANAPHORA

5. Let us tentatively assume, rephrasing the analysis of Pica (1987) in terms of the checking of phi-features, that the reflexive *himself* in an English sentence such as 17 has the complex internal structure in 18.
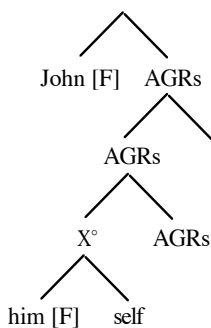
(17)   John hit himself.

(18)

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          NP/N°
          /    \
      him [F]   self
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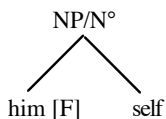
Here the complex element *himself* is formed by merging two X^o's in the lexicon, forming an element whose projection can be interpreted as both an X^o and an XP. (See Chomsky (1994) on the double status of certain elements as X^os and XPs.) We propose that the two X^o's comprising *himself* together form a word-level category, but still play distinct roles in feature-checking and semantic interpretation, for reasons related to the semantics of partition.

On the left (LF) branch, the whole complex (*himself*) moves to SPEC AGRoP as an XP (where the Case features of the XMax [*him self*] are checked).[6] *Himself* must however move further, as a kind of complex clitic (X^o) to the head of AGRsP, as partly illustrated in 19. Within AGRsP, the unchecked features of *him* (if any) are checked through a SPEC-Head relationship with *John*:

(19)

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           /\
      John [F]  AGRs
               /\
             AGRs
             /\
          X°    AGRs
          /\
     him [F]  self
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6   For purposes of exposition, we will assume a non-ergative treatment of French reflexive constructions. Few if any of our suggestions, however, are incompatible with the slightly more complex, ergative analysis advocated by authors including Marantz (1983), Bouchard (1984), and Kayne (1992), as well as in Snyder (1992a).

The fact that *himself* escapes principle B, which amounts to saying that two distinct NPs or pronominals cannot 'corefer' within a local domain, does not need to be stipulated in the grammar. This follows instead from the semantics of partition, as discussed above. The 'reference' of *himself* is crucialy distinct from that of *John*, and *himself* can consequently escape principle B.[7]

The parallelism observed above between *himself* and *se* strongly suggests that the anaphor *se* is not mono-morphemic, as usually assumed. (On the relationship between the morphological structure of the reflexive and its behavior, see in particular, Pica (1984a) and (1984b).) Instead, we take *se* to have a bipartite morphological structure, as illustrated in 20.

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[7]   We could tentatively assume, as in Pica (forthcoming), a version of Principle B, reminiscent of the Rule of Disjoint Reference of Chomsky (1973), according to which two distinct Agreement nodes cannot be related to the same cognitive value v (in the sense of Heim (1993), where a cognitive value for x differs from an index for x in that it takes into account not only the 'reference' of x, but also the way x is interpreted in a given structure or discourse.

(i)   Principle B (reformulated) : For a given Predicate P, no more than one Agreement node can be associated with any single cognitive value v .

The semantics of partition that we assume amounts to saying that in (ii), for example, the relationship between *John* and *himself* is not subject to our reformulation of principle B, because *himself* and *John*, both of which have their features checked in SPEC AGR-P positions, refer to distinct aspects of John. We term this reformulation of Principle B the Disjoint Agreement Principle (DAP).

(ii)   John hit himself.

As suggested to us by A.-M. DiSciullo (p.c.), it might be possible to reduce (i) to an Economy Principle, according to which the presence of two Agreement nodes (at least Agreement nodes that check Case) is legitimated only by the presence of two arguments associated with two distinct cognitive values. We hope to explore this interesting possibility in subsequent work. We further note that both the DAP and the concept of partition tend to reduce the syntactic role of co-indexing, since *himself* is not strictly identical to its antecedent; this result is consistent with the intuition that interpretive indexing should not play any direct role in the syntax.

(20)

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        N°/NP
        /    \
       /      \
   se [F]      Ø
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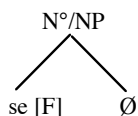
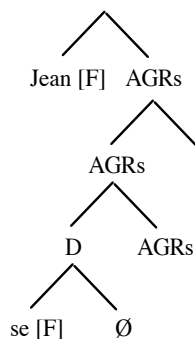The covert Noun Ø is interpreted as meaning a 'part,' and allows a partition of the kind discussed above.

In a sentence like 21 for example, the complex clitic [se   Ø] escapes principle B, because *Jean* and the complex clitic denote distinct aspects of the individual Jean.

(21)   Jean se lave.

        'John washes himself'

The Complex [se Ø] moves first as an XP to SPEC AGRoP, and then moves as an X^o to AGRs, a position where the features of *se* are checked through a SPEC-Head relationship with *Jean,* as partly illustrated in 22:

(22)

```
              /\
             /  \
            /    \
      Jean [F]   AGRs
               /    \
              /      \
            AGRs
           /    \
          /      \
         D       AGRs
        /  \
       /    \
   se [F]    Ø
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We believe that the equivalent of Ø can sometimes be expressed overtly, as in Zribi-Hertz' (1978) example (23a), which as she notices can be paraphrased by 23b, and in 24a, which can be paraphrased as 24b:

(23)   a.   Jean se pose.

              'Jean is setting himself (down).'

              (i.e., 'Jean is sitting down')

        b.   Jean pose son derrière.

              'Jean is setting his backside (down).'

              (i.e., 'Jean is sitting down.')

(24)   a.   Jean se convertit.

              'Jean converts himself.'

              (i.e., 'Jean is undergoing a conversion.')

b. Jean convertit ses idées.

'Jean is converting (i.e., changing) his ideas.'

Our analysis predicts the ungrammaticality of 25, where no type of partition that we have so far identified can apply. The sentence is therefore uninterpretable for semantic reasons.

(25)   * La table se lave.

'The table washes itself.'

The analysis explains moreover, in very different terms than previous analyses (see in particular Kayne (1992)), the well-known puzzle of why (non-reflexive) clitic pronouns like *nous* can also be used as reflexive pronouns. In terms of the present analysis, pronominals can escape principle B when they are subparts of a more complex structure (27), because then, for purposes of Principle B, they are in a domain distinct from that of their antecedent.

(27)

N°/NP

nous [F]   Ø
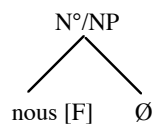
The element Ø induces a partition (as in 3a,b), and the entire complex in 27 can escape the effect of Principle B, as illustrated in 28a,b.[8]

(28)   a. Nous nous lavons.

'We are washing ourselves.'

b. Nous nous croyons intelligents.

'We believe ourselves (to be) intelligent.'

As predicted under the current framework, *se* and *nous* are subject to the same constraints when they cannot induce a local partition. This is illustrated by the parallelism between 29a and 29b, where *nous* cannot be interpreted as a reflexive:

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[8]   As pointed out to us by N. Chomsky, an alternative approach would be to say that anaphors move to AGRs at LF, and escape principle B because they cannot reconstruct to SPEC AGRoP; (non-reflexive) pronominal clitics, in contrast, adjoin to V°, an A'-position from which they obligatorily reconstruct. Pronominal clitics, unlike anaphoric clitics, would be visible to Principle B, on the hypothesis that Principle B applies only to (non-trace) XPs.

(29)   a.   * Il s'apprécie.

              'He likes himself.'

         b.   * Nous nous apprécions.

              'We like ourselves.'

(Non-reflexive) Clitic pronouns, on the other hand, as expected under the current analysis, are subject to principle B if they have a simple structure (30), where there is no element Ø to induce a parition.[9]

(30)

      DP/D°
        |
      nous [F]

The pronominal *nous* moves as an XP to SPEC AGRoP, where all its features are checked by SPEC-Head agreement with the head of AGRoP. There arises the question of why *le* cannot enter into a structure akin to 27 and be employed as a reflexive. This impossibility is illustrated by the ungrammaticality of 31:

(31)   * Jean le frappe.

         'Jean hits himself.'

We believe that this is due to independent factors, namely, that *le* would give a referential status to Ø, and that the semantics of partition (somewhat similar to the semantics of possession) forces the use of a dative or genitive pronoun[10].

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[9]   We believe that a strong pronoun like French *eux* in (i), where the pronoun can refer only to an animate antecedent, might have a more complex structure then what is generaly assumed, as illustrated in (ii):

(i)   Il pense à eux.

         'He thinks about them.'

(ii)   [eux   Ø]

In (ii), the pronoun can refer only to animate antecedents, and Ø can be overtly realized as *autres* in *eux-autres*. We take Ø to stand in a predication relation to *eux*, and to take an understood 'constrast' argument (an idea reminiscent of Benveniste (1965)); the resulting interpretation is something like, 'those other than (the contrast argument).' The structure in (ii) is thus intended to be quite different from that proposed for the reflexive clitic.

Note that *lui-même* cannot express an agent-patient partition in French unless it doubles a clitic *se*, as illustrated by the following contrast :

(32)   a.   * Jean frappe sur lui-même.

            '(lit.) John hits upon himself.'

        b.   Jean se frappe sur lui-même.

            '(lit.) John self-cl hits upon himself.'

This observation can be reduced to the fact that *lui-même* is never used in direct object position in French, and consequently is not assigned the role of patient (occurring in positions more typically associated with location or goal). Hence, *lui-même* cannot, by itself, be interpreted in terms of an agent/patient partition.[11]

As predicted by the present framework, 33, where a knower/object of knowledge partition is possible, is permitted by the grammar :

(33)   Jean est fier de lui-même.

        'Jean is proud of himself.'

Note furthermore that this type of partition (cf. 3b above) correctly predicts the following contrasts in French and English:

(34)   a.   * Jean se considère.

            'Jean is considering himself.'

        b.   Jean se considère intelligent.

            'Jean considers himself intelligent.'

(35)   a.   * Jean se croit.

            'Jean believes himself.'

        b.   Jean se croît intelligent.

            'Jean believes himself (to be) intelligent.'

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[10]   Note in this connection that English *him* in *himself* is historically a dative, rather than accusative, pronoun; the same is clearly true for *lui* of *lui-même*.

[11]   As with the restrictions on *se*, this constraint can be superseded by factors such as focus, which we hope to study in some forthcoming work.

In 34b and 35b Jean is taken as consciously attributing to himself a specific property; thus, there is a salient partition between Jean as knower (or at least 'believer') and Jean as object of knowledge. In 34a and 35a, there is no such partition, and Principle B applies.

Note that this last type of contrast casts very strong doubt on the accuracy of an analysis in terms of the argument-based notion 'reflexivity' (Reinhart and Reuland (1993)), where any reflexive which is an argument of the verb can 'reflexivize' the predicate of which it is an argument.[12]

CONCLUSION

6. In this paper we have presented evidence from French and English to show that local anaphors are possible only if they can be distinguished from their antecedent through a semantics of 'partition'. We have accounted for these facts by treating Principle B as applying to anaphors as well as pronominals. The result of the partition is that the anaphor is understood as related to, but distinct from, its antecedent: Coreference is thus *approximated* without violation of Principle B. On our view, local anaphors (including French *se*) are structurally complex. The semantics of partition arises in part from the compositional semantics of the two components of the

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[12] We have chosen not to address, in the text, the obviously important question of why there exist Principle A effects. One possibility would be that they originate in constraints on the movement operation by which local anaphors have their phi-features checked. One type of constraint could be the Economy notion of Greed. So, for example, in a sentence like (i), the anaphor cannot move further if it has satisfied all its morphological requirements in AGRs of the embedded clause.

(i)   John said that Mary likes herself.

A puzzle for this approach, however, is the ambiguity in (ii), where *himself* can take as its antecedent either *John* or *Bill*.

(ii)   John told Bill about himself.

A possible first step would be to relate the interpretation of *himself* in (ii) to the interpretation of *himself* in 'picture' NPs. The idea would be to treat the predicate 'tell X about Y' as having an underlying structure closer to that of 'tell X information about Y' (cf. Snyder 1992). We leave this topic to future research.

anaphor, and in part from the context provided by the remainder of the sentence. We take the necessity of this bipartite structure to explain the surprising lack of Saussurean arbitrariness in local anaphors.

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