

Pronouns and their Antecedents*

Richard S. Kayne

New York University

June, 2001

1. Introduction

The similarity between binding and movement played a role in discussions of trace theory in the early/mid-seventies, with an attempt then to think of movement (antecedent-trace relations) in binding terms (see Fiengo (1977, 53). Conversely, in the work of Lebeaux (1983) and Chomsky (1986, 175) in the early/mid-eighties, an attempt was made to rethink (part of) Condition A of the Binding Theory in terms of movement.

More recently, O'Neil (1995; 1997) and Hornstein (1999) have proposed reinterpreting (obligatory) control in movement terms, and Hornstein (2001) has further developed a movement approach to Condition A, and also indirectly to Condition B.

In this paper, adopting the derivational perspective of Chomsky's (1995; 2000; 2001) recent work, I will explore the idea that binding should be rethought in movement terms even more generally, including what we think of as Condition C effects.

If the obvious similarity between Condition C and the prohibition against downward movement can successfully be expressed, then we can dispense with the notion of 'accidental coreference', in the sense of Lasnik (1976, 13). (The term could be retained for cases of 'mistaken identity'.) All instances of 'intended coreference/binding' will involve a movement relation.

In attempting to integrate into a movement perspective core Condition C effects involving pronoun and antecedent, and in attempting to dispense with the notion of 'accidental coreference', this paper will go beyond what Hornstein (2001) has tried to accomplish (although the spirit is much the same). I will also take a very different tack from his (and from Burzio's (1991)) on Condition B, which I do not think is derivable as a side effect of Condition A. I will argue that the opposite is in fact closer to the truth, i.e. that there is a sense in which Condition B (or what it follows from) is more basic than Condition A (more exactly, more basic than the existence of reflexives).

In the spirit of the Lebeaux/Chomsky proposals concerning Condition A, I will argue that neither Condition B nor Condition C is a primitive of UG. The effects of both will be argued to follow, in a derivational perspective, from basic properties of pronouns and basic properties of movement.

2. Clitic doubling.

There will in addition be a difference in execution, compared with Hornstein (2001). Hornstein takes pronouns (in many cases) to reflect the spelling out of the trace of movement. But if one interprets movement as copy + deletion/non-pronunciation, as in Chomsky (1995, 202), this is not entirely natural. Movement will leave a (typically unpronounced) copy of the full antecedent; to get from there to the pronunciation of a pronoun requires an additional mechanism (see Hornstein (2001, 178)) that may not be consonant with Chomsky's (1995, 225) inclusiveness condition (if the pronominal is not part of the numeration) and in any event has a countercyclic character that I would like to avoid.

I will prefer to have the pronoun present in the numeration, and, more specifically, to have it derivationally form a constituent with its antecedent. In addition, I will take the position that clitic doubling and antecedent-

pronoun relations should be unified more than they have been.

Clitic doubling involves a clitic pronoun and an associated DP that together correspond to a single theta role:

(1) *Le doy un libro a Juan.* (Spanish: 'him(dat.) I-give a book to J' = 'I am giving a book to John')

On the other hand, antecedent-pronoun cases such as (2) involve two distinct theta roles, one for the antecedent and a distinct one for the pronoun:

(2) John thinks he's smart.

My proposal will be that that (very real) difference is nonetheless compatible with substantial unification.

I will adopt an approach to clitic doubling of the sort found in Kayne (1972, 90) and Uriagereka (1995, 81), in which clitic and double start out/are merged together, <2> and are subsequently separated. Oversimplifying in various ways, <3> we have the following sort of derivation, for the French (interrogative) subject clitic doubling example in (3):

(3) *Cela est-il vrai?* ('that is it true')

(4) [*cela il*] est vrai --> verb movement

est_i [*cela il*] t_i vrai --> movement of the double

*cela*_j est_i [*t_j il*] t_i vrai

In (3)/(4), movement of the double *cela* has the effect of bringing the double to a position leftward of the clitic *il*. In the Spanish example (1), the double *Juan* ends up to the right of the clitic *le*. I take this Spanish fact to reflect the preposing of VP (or some bigger projection, perhaps including all of *le doy un libro*) induced by the preposition *a*, much as in Kayne (2000a, chaps. 14, 15; 2001a). A possible (oversimplified) derivation would be:

(5) *doy un libro [Juan le]* --><4>

[*Juan le*]_i *doy un libro t_i* --><5>

*Juan*_j [*t_j le*]_i *doy un libro t_i* --> merger of *a*

*a Juan*_j [*t_j le*] *doy un libro t_i* -->

[[*t_j le*] *doy un libro t_i*]_k *a Juan*_j t_k

3. Antecedent and pronoun.

Generalizing this to (2), the proposal is for a derivation of (2) of this sort:

(6) thinks [John he] is smart -->

John_i thinks [*t_i he*] is smart

From within the lower sentence, *John* moves into the theta position of the matrix verb (and then raises further).

In this derivation, the double *John* moves from within the doubling constituent [*John he*] into a higher theta position. The essential difference between this case and (5) is that in (5) (in the second movement step) the double *Juan* moves from within the doubling constituent [*Juan le*] into a higher non-theta position.

Notice that although the derivation in (6) countenances movement (of *John*) into a theta position, it does not assign two theta roles to *John* - the lower theta role is assigned, rather, to the larger constituent [*John he*] (conceivably also to the head *he*).

4. Control.

Movement into a theta position is also proposed by O'Neil (1995; 1997) and Hornstein (1999; 2001),^{<6>} but since they do not start from a doubling structure, they also have to allow a given argument to bear more than one theta role, which the proposal illustrated in (6) does not need to do.

In the specific case of control, they have *John* in (7) bearing two theta roles:

(7) John tried to solve the problem.

The above approach to (6), on the other hand, does not lead to that conclusion. Rather, it leads to the claim that there is a pronominal double in (7) that is not pronounced:

(8) tried to [John PRO] solve the problem

PRO is now the counterpart of *he* in (6). The double *John* moves into the theta position of *try*; it does not thereby get a second theta role, since the subject theta role of *solve* is born by [*John* PRO].

It is natural to think of Case in a similar fashion. In (6), the nominative Case determined within the embedded sentence is born by [_i *he*]. The double/antecedent *John* bears no Case at all within the embedding; it gets (nominative) Case in a derived position within the matrix.

This solves a severe problem for the O'Neil/Hornstein approach to control that has been noted by Mark Baltin (p.c.), namely that their assimilation of (obligatory) control to raising leads to the expectation that the kind of Case inheritance found with raising constructions will also be found with control, contrary to fact. More specifically, in a language like Icelandic, as discussed by Thráinsson (1986, 252), a raised subject generally (see Sigurðsson (1989, 96)) carries along its quirky Case (if it has one), but a controller always shows a Case determined by the matrix predicate, never a Case determined by the embedded predicate. This is expected given (8) - the embedded quirky Case, if there is one, will go to [*John* PRO], not to *John* itself, so that *John* will show only the Case determined by the matrix. (A similar point holds for (6).)

5. Merge and Move.

Movement into a theta position, even if it does not imply that an argument can bear more than one theta role, appears to lead to an unwanted asymmetry, if we compare:

(9) John thinks he's smart.

(10) John thinks you're smart.

In (9), on the reading where *John* is the antecedent of *he*, the subject theta position of *think* is filled by movement, whereas in (10) it is filled by simple merger. (That is also true of (9), on the reading where *John* is not the antecedent of *he*.)

The apparently disparate treatment of (9) and (10) can be resolved if all phrasal merger is taken to have

something in common with movement. Even in the case where the phrase merged with the selector is not part of the syntactic object containing the selector, what is merged with the syntactic object headed by the selector can be thought of as a copy (see the suggestion by Chomsky mentioned in Bobaljik and Brown (1997, 349n)). (The other copy, located within the 'derivation space' (set of syntactic objects belonging to the derivation) but not within the syntactic object headed by the selector) is not pronounced.<7>

6. Condition C.

Questions arise concerning the internal structure of the constituent [*John he*] that appears in (6). I assume, following Uriagereka (1995, 81), that *John* is in the highest Spec of that constituent, either as a result of movement from within or as a result of direct merger to that Spec. As for the pronoun, it might be a simple head and exhaust the remainder of the constituent; more likely, the post-Spec structure is more elaborate, as he suggests.

More centrally important to what follows is the following claim (cf. Chomsky's (2001, 13) Phase Impenetrability Condition and the earlier ban against movement of non-maximal phrases):

(11) Extraction of a phrase from within a doubling constituent like [*John he*] is limited to extraction of the Spec.

(Conceivably, in some languages, a pronoun can be extracted by head movement - but see notes 4 and 23.)

Consider now:

(12) He thinks John is smart.

Given (11), (12) is not derivable from:

(13) thinks John-he is smart

because the pronominal part of [*John he*] is not extractable (except perhaps by head movement, which would not suffice to get *he* into the subject theta position of *think* as would be needed in (12)).

Nor is (12) derivable from a structure that would look like:

(14) [*John he*] thinks is smart

by movement of *John* into the subject position of *is smart*. This is so, on the uncontroversial assumption that rightward movement to a non-c-commanding position is prohibited by UG.

If we now compare (12) and (15):

(15) John thinks he is smart.

we see that from the present perspective (including (11)) the contrast between (15) and (12) is essentially that between upward movement (legitimate) and downward movement (illegitimate).<8> A parsimonious theory of UG should need to say about (15) vs. (12) little more than that.

It is usual, however, to think that (12) (more exactly, the reading of (12) in which *he* takes *John* as antecedent) has another potential source, if *he* can 'accidentally' corefer with *John* (cf. Lasnik (1976)). This possibility appears to be a reasonable one given sentences like:

(16) He is smart.

in which *he* seems to have no linguistically characterizable antecedent, yet the sentence seems to have an interpretation.

I think it is essential, however, to attribute compelling importance to the way in which the contrast between (15) and (12) mimics the contrast between upward and downward movement. This parallel will be directly and simply expressed by UG only if there is no 'accidental coreference':

(17) Antecedent-pronoun relations as in (one reading of) (15) REQUIRE movement out of a constituent of the form [*John-he*]. That is the ONLY way to express an antecedent-pronoun relation.<9>

(In effect, (17) says that the language faculty expresses antecedent-pronoun relations through a combination of a local Spec-nonSpec relation (internal to the doubling constituent, where the nonSpec is pronominal) and movement.<10>)

If there is no accidental coreference in the familiar sense, then, given (11), the ungrammaticality of (12) in the relevant reading reduces to the ban against rightward movement to a non-c-commanding position. Given this approach, the exclusion of (12) (in the relevant reading) does not actually depend on Condition C as we have come to know it. Put more strongly:

(18) Condition C is superfluous, i.e. is not a primitive part of UG.

7. More on Condition C and on apparently antecedent-less pronouns.

If there is no accidental coreference (since a pronoun's antecedent must be its own Spec), what should one say about (16)? I would like to suggest that (16), with an unstressed *he*, is unacceptable in isolation.<11> (With a stressed, deictic *he*, (16) is grammatical, presumably because it then includes an unpronounced demonstrative.) It is possible of course to have:

(19) John is famous. He's smart, too.

I take *he* here to have an antecedent, namely *John*. When a pronoun successfully takes a phrase in a preceding sentence as its antecedent, the two sentences in question form a single syntactic entity, akin to coordination.<12> In other words, (19) reduces to, or is strongly similar to the following, in which *John* starts out as Spec of *he* (I return to the c-command question later):

(20) John is famous, and he's smart, too.

Examples of a sort discussed by Hankamer and Sag (1976), such as:

(21) Watch out! He's got a knife.

I take to be grammatical with an unstressed *he* only if there is an unpronounced demonstrative, i.e. (21) in its well-formed reading is akin to (22) (in which *that man* starts out as Spec of *he* and then moves to a non-thematic dislocated position - cf. in part the clitic doubling derivation in (5)):

(22) Watch out! That man, he's got a knife.

Taking (21) to be equivalent to (22) (apart from the silent topic/dislocated phrase in (21)) is to treat (21) as being similar to German sentences with (well-attested) silent topics.

In discussing Condition C so far, I have only considered cases in which a pronoun c-commanded a potential antecedent. I have argued that the impossibility for a pronoun to take a DP that it c-commands as antecedent reduces to the ban on rightward movement to a non-c-commanding position, and does not require attributing

Condition C as primitive to the language faculty.

The question arises as to whether other restrictions, e.g. on 'epithets', that have sometimes been taken to fall under Condition C (see Lasnik and Stowell (1991, 709)) can be understood in comparable fashion. This restriction is illustrated in:

(23) Smith's wife thinks that the poor guy should drop out of school.

(24) Smith thinks that the poor guy should drop out of school.

Taking *the poor guy* to be *Smith* is natural in (23), but not possible in (24). This looks like a distinction based on c-command, therefore is plausibly thought of as a subcase of Condition C, which would then prohibit epithets like *the poor guy* from taking a c-commanding antecedent, whether local or not. From this perspective the relevant reading of (24) would be excluded in exactly the same way as (25) is excluded with *Smith* as the antecedent of *he*:

(25) He thinks that Smith should drop out of school.

However, in other environments, the two cases diverge somewhat:

(26) He probably doesn't even realize that we're planning to fire Smith next week.

(27) Smith probably doesn't even realize that we're planning to fire the poor guy next week.

With *he* dependent on *Smith*, (26) continues to be impossible, like (25). But (27) with *the poor guy* dependent on *Smith* seems better than (24), and in particular better than the relevant reading of (26). (Comparable French examples are discussed by Ruwet (1990, §7).^{<13>}) I conclude from this discrepancy that the epithet-antecedent question should be kept partially separate from the pronoun-antecedent question, and more specifically that (24) and (25) are not excluded for identical reasons.

Somewhat similar to (23)/(24) is:

(28) Smith's wife thinks that Smith should drop out of school.

(29) Smith thinks that Smith should drop out of school.

With the two *Smiths* intended to be the same person, (28), although not perfect, is appreciably better than (29). Again, this looks like a c-command difference, with *Smith* apparently required to be disjoint from any c-commanding phrase. In the light of (26) vs. (27), though, we need to ask about:

(30) Smith probably doesn't even realize that we're planning to fire Smith next week.

It seems to me that (30), while less possible in the intended interpretation than (27), is nonetheless not quite as bad as (26), and similarly for:

(31) He'll only have to act as if everybody finds Smith trustworthy.

(32) Smith will only have to act as if everybody finds Smith trustworthy.

(33) He'll only agree to help if you ask Dawkins yourself.

(34) Dawkins will only agree to help if you ask Dawkins yourself.

With the intended coreference in question, (32) and (34) seem more possible than (31) and (33). I tentatively

conclude that the movement-based account that I have been suggesting for (26) (excluded because *Smith* would have had to move rightward and downward to a non-c-commanding position) should not be expected to transpose simply to (29).<14>

On the other hand, a contrast that does fall together with that between (26) and (35):

(35) *Smith* doesn't even realize that we're planning to fire him next week.

is this one, containing a version of quantifier stranding:

(36) Fortunately, my students haven't all of them seen that film.

(37) *Fortunately, they haven't all of my students seen that film.

(36) is possible in some varieties of English (not mine), but I doubt that (37) is. (36) can be derived from:

(38) haven't all of [my students them] seen that film

by raising *my students* from within the doubling constituent up to a higher specifier position (a non-thematic one, in this case).<15>

There is no parallel derivation for (37), for a combination of two reasons. First, from (38), the pronoun cannot raise to a higher Spec position, given (11). Second, since (rightward) lowering is not available, (39) is not a possible source:

(39) [my students they] haven't all of seen that film

8. Strong crossover.

Consider now an example of 'strong crossover', in which *he* cannot take *John* as antecedent:

(40) John he thinks she's in love with.

This works out as follows. For *he* to have *John* as antecedent, *he* and *John* must start out as a doubling constituent, i.e. a pronoun can be interpreted only via its filled Spec (and must therefore have one).<16> Yet starting from:

(41) thinks she's in love with [John he]

he by itself could not move to matrix subject position, given (11); thus, there's an important element in common between (40) and (12), repeated here, as expected:

(42) He thinks she's in love with John.

The only remaining option for the relevant reading of (40) would be to try to move [*John he*] as a whole in (41), yielding:

(43) [John he]_i thinks she's in love with t_i

and then to topicalize *John*. But (43) itself is ill-formed, parallel to the following (in which two theta roles have been assigned to the same phrase):<17>

(44) *He/*John thinks she's in love with.

A short-distance topicalization example corresponding to (40) would be:

(45) John he considers intelligent.

Again, given (11), *he* cannot by itself reach subject position starting from:

(46) considers [John he] intelligent

(45) in the relevant interpretation could not be derived, either, from:

(47) [John he] considers intelligent

by lowering *John* and then topicalizing it, since the lowering step would be impermissible. Nor is (45) derivable, starting from (46), via movement to subject theta position of [*John he*], followed by topicalization/dislocation of *John*, parallel to the well-formed:

(48) John, he's considered intelligent.

since I have maintained the prohibition against arguments ([*John he*] in (46)) receiving two theta roles.

Note, finally, that one could not start from (47) and, in an attempt to derive (45), simply topicalize/dislocate *John*, since that would leave the embedded small clause subject theta position unfilled, i.e. the embedded subject theta-role would remain unassigned.

Somewhat better than (45) in the relevant reading is:

(49) ??John even HE considers intelligent.

(50) ??John he HIMSELF considers intelligent.

The status of these does not seem to me to be appreciably different from that of:

(51) ??Even HE considers John intelligent.

(52) ??He HIMSELF considers John intelligent.

These two (and hence the previous two) may in part reduce to the question of:

(53) His wife considers John intelligent.

which I return to later. (If so, (49) and (51) may require an unpronounced counterpart of HIMSELF.) The expectation would then be that (49)-(52) should be impossible in languages that disallow (53).)

Also better than (45) in the relevant reading is:

(54) ??John's wife he considers intelligent.

In this case, the non-topicalized version is worse:

(55) *He considers John's wife intelligent.

(54) falls in part under the discussion of (56) (see section 17).

(56) John's wife thinks he's intelligent.

In summary, strong crossover fits in directly to the movement-based reductive approach to Condition C set out in the previous two sections.

9. Condition B.

There is a familiar contrast (in the relevant readings) between (57) and (58)/(59):

(57) John thinks he's smart.

(58) John thinks highly of him.

(59) John considers him intelligent.

Why are (58)/(59) not derivable in parallel fashion to (57), starting from, e.g.:

(60) thinks highly of [John him]

with movement of the double *John* to subject theta position?

From the standard non-movement perspective on these, there are two kinds of answers that have been given. One is stated in terms of Chomsky's (1981, 188) Condition B. A second (which has something in common with Chomsky's (1981, 65) 'avoid pronoun' proposal) is of the sort pursued in different ways by Reinhart (1983), Burzio (1991), Hornstein (2001) and Safir (in preparation), namely that (58) and (59) are excluded as a consequence of the existence of the corresponding sentences with reflexives:

(61) John thinks highly of himself.

(62) John considers himself intelligent.

Lasnik (1980) takes the independence of Condition B effects to be clear in part on the basis of overlapping reference effects (subsumed under Condition B in Chomsky and Lasnik (1993); Chomsky (1995, 97)), e.g.:

(63) ?We consider me intelligent.

The deviance of this example cannot be attributed to the existence of a parallel reflexive-containing sentence, given:

(64) *We consider myself intelligent.

Lasnik's position might appear to be weakened to some extent by the fact that (63) is not completely unacceptable.<18>

It is consequently important to take into account a fact pointed out to me about ten years ago by Luigi Burzio, namely that in Italian the status of (63) is sharper with clitics than with non-clitics, e.g.:

(65) ?Consideriamo me intelligente. ('we-consider me intelligent')

(66) *Mi consideriamo intelligente. ('me we-consider intelligent')

When, as in (65), the (accusative) pronoun is not a clitic, the Italian example has approximately the status of the English one. Whereas when the accusative pronoun is made a clitic, as in (66), the sentence is sharply out.

The ungrammaticality of (66) clearly supports (given the fact that there is no reflexive counterpart to it at all) the idea that there are Condition B effects that are independent of the existence of reflexives. The same facts

hold in Italian if we reverse singular and plural (judgments from Guglielmo Cinque):

(67) ?Considero noi intelligenti. ('I-consider us intelligent')

(68) *Ci considero intelligenti. ('us I-consider intelligent')

With non-clitic *noi*, the sentence is intermediate in acceptability; with clitic *ci* it is sharply out. Similarly in the third person, in the relevant interpretation:

(69) ?Considera loro intelligenti. ('he/she-considers them intelligent')

(70) *Li considera intelligenti. ('them he/she-considers intelligent')

With non-clitic *loro*, overlapping reference is marginal; with clitic *li* it is impossible.

Why are these Condition B effects in Italian very sharp with clitics but not with non-clitics? A plausible proposal would be that the Condition B effect is dampened in (65)/(67)/(69) by the presence of extra morphological material, either overt (if the morpheme *-e* of *me* is relevant, for example) or covert (if *me*, *noi* and *loro* in these examples are all accompanied by a covert (approximate) counterpart of English *self* (but without the possessive structure) or Italian *stesso* ('same')), which allows Italian to dampen the Condition B effect, in some way partially akin to what will be suggested below for English overt *self* (with possessive structure). (Clitics would be incompatible with such extra morphological material.)

In conclusion, then, the ungrammaticality of (66), (68) and (70) supports the independence of Condition B, leaving us with the question of how best to understand Condition B effects and especially with the question of why there should be such a condition in UG in the first place.

The second question is not usually asked by those who accept an independent Condition B. I will attempt to give a partial answer. It will have something in common with Lebeaux (1983, 726) and Chomsky's (1986, 175) idea that Condition A involves the application of movement that resembles overt clitic movement. (I will address Condition A below.)

The proposal so far has been that the reading of (57) in which *he* takes *John* as antecedent must involve a derivation in which *John* and *he* start out together as part of one 'doubling' constituent (which gets the theta role of *smart*). *John* itself gets no theta role within the lower sentence; its theta role comes about as the result of its moving into the subject theta position of *think*. If that were the whole story, (58) and (59) would be derivable in similar fashion, incorrectly.

Let me therefore add to this picture the idea that in moving from within the doubling constituent up to the position in which it gets its theta role *John* must pass through an intermediate position. The required intermediate position will be available in (57) but not in (58) or (59).

One way to formulate this idea would be to say that *John*, in these derivations, must pass through an intermediate A-bar position. The question why Condition B effects exist would then become the question why such successive cyclicity need hold.

A potentially attractive answer is to say that it is precisely because *John* originates within a doubling constituent. My proposal, more specifically, is that the crucial intermediate step is actually movement of the doubling constituent itself.

Assume, thinking of Romance clitic movement (and Icelandic object shift), that unstressed pronouns must invariably move. Assume further that a pronoun heading a doubling constituent, e.g. the *he* of [*John he*], in moving, pied-pipes the whole doubling constituent, so that the crucial intermediate step is in effect induced

by properties of pronouns.

I will remain vague about where [*John he*] moves to except for the following claim:

(71) The pronoun (hence the doubling constituent) must move to a position above the subject theta position (i.e. outside the thematic part of the structure).<24>

Put another way, the core idea is:

(72) There is no appropriate licensing position for the pronoun within VP or between VP and the subject theta position.

In (57), repeated here, [*John he*] starts out in the subject theta position of the embedded sentence:

(73) John thinks he's smart.

Given (71)/(72), movement of [*John he*] to the lower Spec,IP suffices. Subsequently, *John* itself will move up to the subject theta position of *think*.

In (58), a variant of which is repeated here, there is, desirably, a problem:

(74) John praises him.

In the reading in which *him* takes *John* as antecedent, there must be a doubling constituent [*John him*] that originates in the object theta position. By virtue of (71)/(72), [*John him*] must raise to a position above the subject theta position. But then *John* would be too high to be able to move into that subject theta position, with the result that *John* would get no theta role (and the subject theta role would remain unassigned). Consequently, (74) is impossible in the intended reading.

There is another potential derivation of (74) that must be excluded, one in which *John* moves into the subject theta position prior to the pronoun pied-piping the doubling constituent. Let me take this to be a locality effect (which needs to be made precise), with the DP in subject theta position then interfering with movement past it of a doubling constituent containing a trace/copy of that same DP.

The derivation of (59), repeated here, raises a related question:

(75) John considers him intelligent.

For a coreferential reading to be possible, [*John him*] would have to start out in the theta position of *intelligent* and then move to a higher intermediate position before *John* moves up into the subject theta position of *consider*. If there were such a position available, the coreferential reading would be derivable, incorrectly. In this case, one could plausibly say that the small clause is too 'small', i.e. that there is no available intermediate pronoun position within it. While possibly correct for small clauses, that kind of answer might not be sufficient for infinitives:

(76) John considers him to be intelligent.

An alternative (or additional) proposal would be that 'raising-to-object' must apply first and that once it does [*John him*] is too high in the structure for there to be any available intermediate position above it, yet below the subject theta position of *consider*.<25>

In summary, Condition B is not a primitive of UG. Condition B effects come about because pronoun-antecedent relations involve movement from within a doubling constituent, and because that movement must

find an intermediate landing site somewhere between the theta position of the doubling constituent and the theta position of the double. When those two positions are too close together to allow for the presence of the required intermediate position, we find what have come to be called Condition B effects.<26>

10. Why are there reflexives?

This question is not usually asked explicitly. Discussions of (the relation between Condition A and) Condition B often take the existence of reflexives for granted.<27> It is reasonable, instead, to take the existence of reflexives as a fact about UG that needs to be understood.

English tolerates perfectly well the familiar ambiguity of:

(77) John thinks he's smart.

The pronoun *he* can take *John* as antecedent or not. (From the present perspective, *he* is part of [DP *he*], where DP is either *John* or some phrase other than *John* that is not visible - see the discussion of (16)-(22).) Why then should English (and UG, more generally) bother with having reflexives, with their complex syntax?

The existence of Condition B effects (reinterpreted here in terms of UG properties of pronouns and movement) provides an answer if we grant that UG needs to allow for the expression of sentences in which object and subject are coreferential. (Without reflexives, (74)-(76) would not be expressible (using a pronoun).)

11. English-type reflexives.

Why does the addition of *self* make coreference available in?:

(78) John thinks highly of himself.

(79) John considers himself intelligent.

The answer must be that *self* makes available an intermediate position for the pronoun that is not available in the absence of *self*. It may be that the structure is:

(80) thinks highly of D⁰ [John-he] ('s) self

such that Spec,DP counts as an intermediate pronoun position to which [*John he*] can raise prior to *John* raising to the subject theta position of *think*. Put a bit less specifically, the presence of the noun *self* licenses a possessive-type DP structure (see Helke (1971; 1973)) one of whose Specs fulfills the pronoun's need (so that [*John he*] has no need to raise to a position above the theta position of *think*).<28>

If the needs of [*John he*] are met DP-internally in (80), then the c-command and locality requirements on the antecedents of reflexives (i.e. on the position to which *John* subsequently moves) do not follow directly from the present set of proposals. This is particularly clear from:

(81) John wants me to photograph his dog/*himself.

(82) I want John to photograph my dog/*myself.

John can move long-distance out of a doubling constituent [*John his*] that is the possessor of *dog*, but not of *self*, and similarly for [*I my*] in (82). *Self* also imposes much stricter c-command requirements:

(83) John's sister likes his dog/*himself.

(84) My sister likes my dog/*myself.

It may well be that Helke (1971; 1973) was correct to emphasize common properties of *self*-reflexives and idiomatic possessives:<29>

(85) John blew his top.

These share the locality and c-command properties of *self*:

(86) John doesn't want me to blow my/*his top.

(87) John's sister blew her/*his top.

Alternatively, or in addition, the locality and c-command requirements on the antecedents of ordinary reflexives may be related to the following (see Burzio (1986, 112) on emphatic pronouns in French and Italian; also Jayaseelan (1997)):

(88) John wants me to do it myself/*himself.

(89) John's sister fixed it herself/*himself.

I will not pursue these (important) questions here.<30>

12. *zich*-type reflexives.

R. Huybregts pointed out in Pisa in 1979 that Dutch reflexive *zich* has pronominal as well as anaphoric properties, in particular that to a certain extent it displays anti-locality effects of the Condition B type (for more recent discussion, see Veraart (1996)). To a certain extent, Italian reflexive non-clitic *sé* shows Condition B effects, too (see Kayne, 2000a, 149).

If Dutch *zich*, Italian *sé* and similar elements in Scandinavian show such effects, then they should be analyzed as entering a doubling constituent subject to the movement requirements proposed above for ordinary pronouns. *Sé* et al. differ from ordinary pronouns, however, in needing a c-commanding antecedent and in needing their antecedent to be relatively local (but not systematically as local as in the case of English reflexives).

In the preceding section on English reflexives, I suggested (see (83), (84), (87) and (89)) that the fact that c-command must hold between antecedent and reflexive may not be a fact specific to what we normally think of as binding theory. In the case of *sé*-type elements, too, it would be desirable not to have to stipulate a c-command requirement.

To approach a solution, let us look at the locality facts. These *sé*-type elements (with various interesting differences among them) may generally not be separated from their antecedents by an indicative clause boundary. They can, on the other hand, often be embedded in an infinitive within which their antecedent is not found, and to a lesser extent in a subjunctive.

The fact that the antecedent-*sé* relation is sensitive to distinctions like indicative/subjunctive/infinitive recalls comparable distinctions found with certain more familiar kinds of movement, e.g., quantifier (*tout/rien* - 'everything(all)'/ 'nothing') movement of the French type:<31>

(90) Il a tout voulu refaire. ('he has all wanted to-redo')

(91) ?Il a tout voulu qu'ils refassent. ('he has all wanted that they redo(subjunctive)')

(92) *Il a tout dit qu'ils ont refait. ('he has all said that they have(indicative) redone')

This similarity between the antecedent-*sé* relation and the movement of *tout/rien* in turn recalls the fact that on the whole Italian *sé* prefers that its antecedent be a quantified phrase (v. Kayne (2000a, 150)) and especially my proposal there (p.146) that *sé* can have a plural antecedent only via the intermediary of a(n abstract) distributor (like *each*) and that that distributor is responsible for certain locality restrictions (with plural antecedents).

What all of this suggests is that we should generalize the distributor idea even further:

(93) The antecedent of *sé* must always be quantified; when there is no overt quantifier/distributor, there must be a covert one; c-command must hold, as with movement of *tout/rien*.

(94) This is true even for singular antecedents (in which case the distributor is degenerate, distributing over a singleton).<32>

(95) It is the relation between the distributor and *sé* that is sensitive to indicative vs. subjunctive vs. infinitive.

Thus an Italian sentence like:

(96) Gianni ha parlato di sé. ('John has spoken of *sé*')

will look like:

(97) Gianni ha *DB* parlato di sé.

where *DB* is the abstract (and, here, degenerate) *each*.

In addition to the relation between *DB* and *sé* to which I am attributing the locality effects, there is a relation between *DB* and the antecedent, here *Gianni*. Since a 'floating' distributor must be c-commanded by its 'antecedent':

(98) Those numbers are each divisible by a different prime.

(99) *The sum of those numbers is each divisible by a different prime.

it follows, given that *DB* must c-command *sé*, that the antecedent of *sé* must c-command *sé*.

We can now say that *sé* is like ordinary pronouns in being part of a doubling constituent (which yields the Condition B type effects), but that its double is (unlike that of ordinary pronouns) necessarily a *DB* (whence the locality effect), which is in turn related to a DP (yielding the c-command effects), in ways that I will not explore any further here.<33>

13. Backwards pronominalization

So-called 'backwards' pronominalization, as in (100), is not expected if movement respects the extension condition and if antecedent-pronoun relations must invariably be expressed by movement of the sort proposed here:

(100) His mother is angry at John.

Although this at first seems like an unwanted conclusion, given the acceptability of (100), things look

different if one takes into account the fact that many languages allow sentences like (100) much less readily than English, or not at all.<34>

This fact suggests that the correct theory of UG will make backwards pronominalization harder to come by. Consider the following proposal: (100) is only derivable as a counterpart of the topicalization example (101):

(101) John his mother is angry at.

(101) has an acceptable 'strict' reading (with a possible follow-up ...*but she's not angry at his little sister*), but the imaginable 'sloppy' reading is for me appreciably more difficult.<35>

The acceptability of (101) is itself a challenge. If we start, e.g., from:<36>

(102) [John his] mother is angry at

we express correctly the relation between *John* and *his*, but we have no phrase capable of bearing the object theta role of *angry at*. One possible analysis would be the following. (101) in the strict reading has covert structure that if overt would look like:

(103) Somebody (who is) John his mother is really angry at.

with an analysis:

(104) [somebody (who is) ___] [John his] mother is angry at

in which the object theta role of *angry at* is now born by the (moved) topicalized phrase *somebody (who is) ___*. *John* moves from within the doubling constituent contained within the subject phrase [*John his*] *mother* to the position indicated by '___' (see section 17), yielding:

(105) [somebody (who is) John_i] [t_i his] mother is angry at

(100) is then derived from a structure like (104) via leftward movement around the 'topic' of everything that follows it.

At a first approximation, the expectation is, now, that backwards pronominalization should be unavailable in English in cases where topicalization is unavailable. This may account for a contrast mentioned by Jayaseelan (1991):

(106) It was John's pride that saved him.

(107) What saved him was John's pride.

him can take *John* as antecedent in the cleft (106) but not in the pseudo-cleft (107). (106) is to be analyzed like (105). The unacceptability of pseudo-cleft (107) can from the current perspective be related to the impossibility of topicalization seen in:

(108) *John's pride what saved him was.

Coming back to the necessary comparative syntax question, languages that disallow backwards pronominalization may be languages that disallow leftward movement around a topic,<37> or else disallow empty resumptives/covert *somebody (who is)*, or both.

The unacceptability (weak crossover) of:

(109) *His mother was angry at every little boy.

would then in part reduce to the deviance of **somebody who is every little boy*, and perhaps similarly for the sloppy reading of (100) or (101) (but I will not pursue the question here).

14. Epithets again.

As noted in the discussion of (27), epithets don't show a consistently strong Condition-C-like effect. Another example is:

(110) Smith probably doesn't even appreciate the good things we've been saying about the idiot these days.

This contrasts with:

(111) The idiot probably doesn't even appreciate the good things we've been saying about Smith these days.

Taking *Smith* as antecedent of *the idiot* seems quite a bit harder in (111) than in (110). Although a bit weaker, this contrast obviously recalls that holding if we replace *the idiot* here by *he/him*. It suggests that we take (111) to be a Condition C effect of the familiar sort, like:

(112) He probably doesn't even appreciate the good things we've been saying about Smith these days.

Now I have proposed that (112) be thought of as involving the prohibition against rightward movement to a non-c-commanding position. For that idea to extend to (111), it must be the case that (110) derives from a doubling structure via upward movement, just like:

(113) Smith probably doesn't even appreciate the good things we've been saying about him these days.

Just as (113) involves (leftward, upward) movement of *Smith* from within the doubling constituent [*Smith him*], so (110) must involve the same movement from within a doubling constituent of the form [*Smith the idiot*].^{<38>} If we now say, generalizing the earlier proposal about pronouns, that epithets can take an antecedent ONLY via a derivation involving movement out of a doubling constituent,^{<39>} (111) will be unavailable parallel to (112).

Recall that my account of Condition B effects in section 9 depended in part on the idea that unstressed pronouns have to move to a licensing position outside vP. If epithets are unlike pronouns in that respect, then, despite the similarity between (111) and (112), we should expect not to find Condition B effects with epithets. This this expectation may hold is shown by the approximately equal status of:

(114) Smith would like the idiot to be reelected.

(115) Smith would like the idiot's sister to be reelected.

The unacceptability of these and of (24) (as opposed to (110) and (27)) would then need a new account.

15. Condition C reconstruction effects.

In the following, *he* cannot take *John* as antecedent

(116) How many pictures of John did he take (with his new camera)?

The same is true of:

(117) He took five pictures of John.

Condition C as usually interpreted can relate (116) to (117) by taking advantage of the fact that (116) strongly resembles (117) prior to Wh-movement and at LF, as in Chomsky's (1995, chapter 3) discussion. Put another way, (116) can be excluded if Condition C applies at the appropriate point.

But that approach to (116) depends on the interpretation of Condition C as a kind of filter (see Lasnik (1976)). The proposal I have been outlining has no Condition C, strictly speaking, and the way in which Condition C effects are obtained is not filter-like. Condition C effects come about, instead, because the antecedent (starting from within a doubling constituent) cannot reach certain positions relative to the pronoun.

From this perspective, (116) is excluded in part parallel to (117) (the antecedent cannot move rightward to a non-c-commanding position), but now there is another question - why could (116) not be derived via?:

(118) how many pictures of __ did [John he] take

with *John* moving to the position following *of*.

One might of course respond by noting that that would require leftward movement to a non-c-commanding position. While apparently to the point, that response would leave open the well-known cases in which Wh-movement has opposite behavior:

(119) Which of the pictures that John took yesterday did he destroy today?

Here *he* can take *John* as antecedent.

There may be a link here to a proposal of Huang's (1993) concerning:

(120) *Mary is wondering how proud of herself John is.

His account was that Wh-movement had to carry along a subject position associated with *how proud of herself* and that the presence of that subject prevented *herself* from taking *Mary* as antecedent. In my terms, this must be interpreted as a fact about (the impossibility of) movement of the double *Mary* in:

(121) is wondering how DP_{subject} proud of [Mary her] self John is...

up to the subject theta position of *wonder*. This movement view is supported (although much more needs to be made precise) by the fact that Wh-movement is also not possible here:

(122) *Which girl have you been wondering how proud of __ John is?

Huang's account of (120) in terms of extra material obligatorily associated with *how proud of X* can be adapted to:

(123) How proud of Mary is she?

in which *she* cannot take *Mary* as antecedent.

Let me make a proposal (related to those of Kayne (2001b)) in part inspired by Ross (1969) (in addition to Huang (1993)), in part by the English:

(124) He's real smart, John is.<40>

(125) He's talked to I don't know how many people!

and in part by Gulli's (2000) work on the Italian:

(126) E' andato a Parigi è andato. ('he-is gone to P he-is gone')

The proposal is that (123) has hidden structure (a bit more than what Huang postulated) resembling the almost possible (perhaps dialectal):

(127) ?She's how proud of him is she?

In other words, (123) is impossible in the relevant reading because it would have to correspond to:

(128) ?She's how proud of Mary is she?

which is impossible with *Mary* as antecedent of *she*, just as in:

(129) She's proud of Mary.

which has no valid derivation that would include the needed [*Mary she*]. (A full account of (128) will have to make sure that there is no point in the derivation at which *Mary* precedes every *she*.)

Returning to (116), the Condition C effect there will now follow if the structure is obligatorily of the (128) sort:

(130) ?He took how many pictures of you/John did he take?

(119) will be distinguishable from (116) if (119) need not have such hidden structure. There is of course the familiar and difficult question of what underlies the difference between (119) and (116). The adjunct vs. complement distinction adopted by Chomsky (1995, 204) does not seem quite right - see Nunes (2001, 320n) and references cited there; also the fact that the relative in:

(131) The ones *(John bought yesterday) he resold today.

is obligatory, given the 'head' *ones*. I leave this question open.

16. Further Condition C reconstruction effects.

Consider now:

(132) ...and ask me to help him John will.

(133) ...and ask me to help John he will.

John cannot antecede *he* in (133). It may be that these apparent instances of VP-preposing should be analyzed as close relatives of (124), i.e. as:

(134) ...and John will ask me to help him John will.

(135) ...and he will ask me to help John he will.

the problem with the latter then being the *he...John* relation, as in (128).

A somewhat different type is:

(136) He seems to John's wife to be tired.

in which *he* cannot take *John* as antecedent, despite the availability of that interpretation in:

(137) It seems to John's wife that he's tired.

Why can *John* not move from within [*John he*] leftward to the possessor position prior to subject-to-subject raising? The answer may be that the source of *John seems to Mary to be tired* is closer to (138) than to (139):

(138) It seems (that) you're tired to Mary.

(139) It seems to Mary (that) you're tired.

The greater naturalness of the latter may be misleading; it disappears under preposition stranding:

(140) ?Who did it seem (that) I was tired to?

(141) ??Who did it seem to (that) I was tired?

If in (136) subject-to-subject raising applies to:

(142) seems [X to be tired] to Y's wife

the unwanted interpretation will be avoided (as long as the final word order is determined after subject-to-subject raising, perhaps by factoring out infinitival *to* in the manner of Kayne (2000a, chap. 14)).<41>

17. Sideward movement

The availability of (119) with *John* antecedent of *he* looks like that of:

(143) The woman that John is talking to doesn't like him/the guy.

Given my analysis, in order for *John* to antecede *him*, *John* here must originate within a constituent [*John him*] (and similarly for [*John the guy*] - see section 14), and the derivation must involve 'sideward' movement in the sense of Nunes (2001), Bobaljik and Brown (1997) and Hornstein (2001), on the expectation that overgeneration can be kept in check, as they discuss. (I must take such sideward movement to be limited to leftward movement.<42>)

Somewhat like (143) is:

(144) Every farmer who owns a donkey loves it.

It remains to be seen whether the double of *it* can be taken to be as simple as *a donkey* (for relevant discussion, see Sauerland (2000)).

18. Circularity

Higginbotham and May (1981) and Higginbotham (1983, 405) discuss cases like:

(145) His wife just saw her husband.

in which it cannot simultaneously hold that *his* take *her husband* as antecedent and *her* takes *his wife* as antecedent. In present terms, this is due to the fact that if, for example, *her* is given *his wife* as antecedent, we need:

(146) ...[his wife her] husband

But then *his* needs as its double the minimal phrase containing *her* and *husband*, which, however, contains *his*, leading to a regress.

Bach (1970) has:

(147) The man who shows he deserves it will get the prize he desires.

This may escape the regress problem through relative clause 'extraposition', e.g. the antecedent of *it* may be *the prize* (not including the relative).

19. 'Transitivity of coreference'

Lasnik (1976, 11) discusses examples like:

(148) The woman he loved told him that John was a jerk.

in which it is not possible for *he*, *him* and *John* to all be coreferential. To avoid the complication of a 'backwards pronominalization' configuration (see section 13), let me take a simpler (in certain respects) example:

(149) He says John thinks he's smart.

The two *hes* are in a legitimate coreference configuration, as are *John* and the second *he*. 'Transitivity of coreference' might lead one therefore to expect the sentence to be possible with all three coreferential, incorrectly.

In present terms, we can have:

(150) ...[John he] is smart

followed by movement of *John* to the subject theta position of *think*, but that leaves the initial *he* in (149) 'out of the picture'. The two *hes* could be related if a silent DP double of the second *he* moved to the Spec of the first *he*, but that would leave out *John*. As in note 36, we can have, with two essential movement steps:

(151) John says he thinks he's smart.

but no automatic 'transitivity of coreference' is expected under the present proposal.

20. Split antecedents and overlapping reference.

(152) John told Bill that they should leave.

might, thinking of (153), involve a relation with only one of the apparent antecedents:

(153) John told me that they had decided that Bill would go first.

Alternatively (see den Dikken et al. (2000) and Larson and Vassilieva (2001)) at least some plural pronouns may be hidden instances of coordinate pronouns, so that *they* in (152) could be *he and he*, with each pronoun having a distinct antecedent.

Sentences like:

(154) I think we should leave.

will require a doubling constituent of the form [*I we*], given the Condition B effects discussed in section 9.

21. Conclusion.

I have explored a movement based approach to pronoun-antecedent relations that attributes Condition C and Condition B effects to properties of movement and that eliminates both as primitives of UG. The existence of reflexives is traceable back to Condition B. No use is made of 'accidental coreference' in the sense of Lasnik (1976).

Allan, R., P. Holmes and T. Lundskær-Nielsen (1995) *Danish: A Comprehensive Grammar*, Routledge, London.

Aoun, J. and L. Choueiri (2000) "Epithets," *Natural Language and Linguistic Inquiry*, 18, 1-39.

Bach, E. (1970) "Problominalization," *Linguistic Inquiry*, 1, 121-122.

Bianchi, V. (2001) "Antisymmetry and the Leftness Condition: Leftness as Anti-C-Command," *Studia Linguistica*, 55, 1-38.

Bobaljik, J.D. and S. Brown (1997) "Interarboreal Operations: Head Movement and the Extension Requirement," *Linguistic Inquiry*, 28, 345-356.

Burzio, L. (1986) *Italian Syntax. A Government-Binding Approach*, Reidel, Dordrecht.

Burzio, L. (1991) "The Morphological Basis of Anaphora," *Journal of Linguistics*, 27, 81-105.

Cardinaletti, A. and M. Starke (1995) "The Tripartition of Pronouns and its Acquisition: Principles B Puzzles are Ambiguity Problems," in J. Beckman (ed.) *Proceedings of NELS 25*, GLSA, UMass, Amherst.

Cecchetto, C. (1999) "A Comparative Analysis of Left and Right Dislocation in Romance," *Studia Linguistica*, 53, 40-67.

Chomsky, N. (1973) "Conditions on Transformations," in S.R. Anderson and P. Kiparsky (eds.) *A Festschrift for Morris Halle*, Holt, Rinehart and Winston, New York, 232-286.

Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.

Chomsky, N. (1986) *Knowledge of Language*, Praeger, New York.

Chomsky, N. (1995) *The Minimalist Program*, The MIT Press, Cambridge, Mass.

Chomsky, N. (2000) "Minimalist Inquiries: The Framework," in R. Martin, D. Michaels and J. Uriagereka (eds.) *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*, The MIT Press, Cambridge, Mass., 89-155.

Chomsky, N. (2001) "Derivation by Phase," in M. Kenstowicz (ed.) *Ken Hale. A Life in Language*, The MIT Press, Cambridge, Mass., 1-52.

Chomsky, N. and H. Lasnik (1993) "The Theory of Principles and Parameters," in J. Jacobs, A. von Stechow, W. Sternefeld and T. Vennemann (eds.) *Syntax. An International Handbook of Contemporary Research*, de Gruyter, Berlin.

Cinque, G. (1990) *Types of A'-Dependencies*, The MIT Press, Cambridge, Mass.

- Cinque, G. (2001) "Two Types of Quantifier Climbing in French," ms., University of Venice.
- Craig, C.G. (1977) *The Structure of Jacaltec*, University of Texas Press, Austin.
- Dejean, Y. (1993) "Manifestations en créole haïtien du principe d'adjacence stricte," ms.
- Dikken, M. den, A. Lipták and Z. Zvolenszky (2000) "On Inclusive Reference Anaphora: New Perspectives from Hungarian," ms., Graduate Center, CUNY and New York University.
- Epstein, S. (2001) "Deriving the Proper Binding Condition," ms., University of Michigan.
- Fiengo, R. (1977) "On Trace Theory," *Linguistic Inquiry*, 8, 35-61.
- Gulli, A. (2000) "Reduplication in Syntax," ms., New York University.
- Hankamer, J. and I. Sag (1976) "Deep and Surface Anaphora," *Linguistic Inquiry*, 7, 391-428.
- Helke, M. (1971) *The Grammar of English Reflexives*, Doctoral dissertation, M.I.T.
- Helke, M. (1973) "On Reflexives in English," *Linguistics* 106, 5-23.
- Hestvik, A.G. (1992) "LF Movement of Pronouns and Antisubject Orientation," *Linguistic Inquiry*, 23, 557-594.
- Higginbotham, J. (1983) "Logical Form, Binding and Nominals," *Linguistic Inquiry*, 14, 395-420.
- Higginbotham, J. and R. May (1981) "Crossing, Markedness, Pragmatics," in A. Belletti, L. Brandi & L. Rizzi (eds.) *Theory of Markedness in Generative Grammar. Proceedings of the 1979 GLOW Conference*, Scuola Normale Superiore, Pisa, 423-444.
- Hoekstra, E. (1999) "On D-pronouns and the Movement of Topic Features," in W. Abraham (ed.) *Characteristic Properties of Spoken Vernaculars (Folia Linguistica* 33, 59-74).
- Hornstein, N. (1999) "Movement and Control," *Linguistic Inquiry*, 30, 69-96.
- Hornstein, N. (2001) *Move! A Minimalist Theory of Construal*, Blackwell, Malden, Mass. and Oxford.
- Huang, C.-T.J. (1982) *Logical relations in Chinese and the theory of grammar*, Doctoral dissertation, M.I.T.
- Huang, C.-T.J. (1993) "Reconstruction and the structure of VP: Some theoretical consequences," *Linguistic Inquiry*, 24, 103-138.
- Jayaseelan, K.A. (1991) "The Pronominal System of Malayalam," *CIEFL Occasional Papers in Linguistics*, 3, 68-107.
- Jayaseelan, K.A. (1997) "Anaphors as pronouns," *Studia Linguistica* 51, 186-234.
- Kayne, R.S. (1975) *French Syntax. The Transformational Cycle*, MIT Press, Cambridge, Mass.
- Kayne, R.S. (1994) *The Antisymmetry of Syntax*, The MIT Press, Cambridge, Mass.
- Kayne, R.S. (2000a) *Parameters and Universals*, Oxford University Press, New York.
- Kayne, R.S. (2000b) "Recent Thoughts on Antisymmetry," paper presented at the Antisymmetry Workshop, Cortona, Italy.

Kayne, R.S. (2001a) "Prepositions as Probes," ms., New York University.

Kayne, R.S. (2001b) "Remnant Movement, A-Movement and Reconstruction," paper presented at the Asymmetry conference, UQAM and at the Workshop on the Structural Mapping of Syntactic Configurations and its Interfaces with Phonology and Semantics, University of Florence.

Larson, R. and M. Vassilieva (2001) "The Semantics of Plural Pronouns," paper presented at SALT 11, New York University.

Lasnik, H. (1976) "Remarks on Coreference," *Linguistic Analysis*, 2, 1-22.

Lasnik, H. (1980) "On Two Recent Treatments of Disjoint Reference," *Journal of Linguistic Research*, 1, 48-58.

Lasnik, H. and T. Stowell (1991) "Weakest Crossover," *Linguistic Inquiry*, 22, 687-720.

Lebeaux, D. (1983) "A Distributional Difference between Reciprocals and Reflexives," *Linguistic Inquiry*, 14, 723-730.

Maling, J.M. (1976) "Notes on Quantifier Postposing," *Linguistic Inquiry*, 7, 708-718.

McCawley, J.D. (1978) "Where Do Noun Phrases Come From?," in R.A. Jacobs and P.S. Rosenbaum (eds.) *Readings in English Transformational Grammar*, Ginn, Waltham, 166-183.

Nadahalli, J. (1998) *Aspects of Kannada Grammar*, Doctoral dissertation, New York University. Nunes, J. (2001) "Sideward Movement," *Linguistic Inquiry*, 32, 303-344.

O'Neil, J. (1995) "Out of Control," in J.N. Beckman (ed.) *Proceedings of NELS 25*, GLSA, University of Massachusetts, Amherst, 361-371.

O'Neil, J. (1997) *Means of Control: Deriving the Properties of PRO in the Minimalist Program*, Ph.D dissertation, Harvard University.

Pica, P. (1987) "On the Nature of the Reflexivization Cycle," in *Proceedings of NELS 17*, GLSA, University of Massachusetts, Amherst, 483-499.

Pica, P. and W. Snyder (1997) "On the Syntax and Semantics of Local Anaphors," in A.M. di Sciullo (ed.) *Projections and Interface Conditions*, Oxford University Press, Oxford.

Pollock, J.-Y. (2000) "Subject Clitics, Subject Clitic Inversion and Complex Inversion: Generalizing Remnant Movement to the Comp Area," ms., Université de Picardie à Amiens (to appear in syn.com).

Postma, G. (1997) "Logical Entailment and the Possessive Nature of Reflexive Pronouns," in H. Bennis, P. Pica and J. Rooryck (eds.) *Atomism and Binding*, Foris, Dordrecht, 295-322.

Reinhart, T. (1983) *Anaphora and semantic interpretation*, Croom Helm, London.

Rizzi, L. (1990) *Relativized Minimality*, The MIT Press, Cambridge, Mass.

Ross, J.R. (1969) "On the Cyclic Nature of English Pronominalization," in D.A. Reibel and S.A. Schane (eds.) *Modern Studies in English. Readings in Transformational Grammar*, Prentice-Hall, Englewood Cliffs, New Jersey, 187-200.

Ruwet, N. (1982) *Grammaire des insultes et autres études*, Editions du Seuil, Paris (English translation by

John Goldsmith.

Ruwet, N. (1990) "EN et Y: Deux clitiques pronominaux antilogophoriques," *Langages*, 97, 51-81.

Safir, K. (1996) "Semantic Atoms of Anaphora," *Natural Language and Linguistic Theory*, 14, 545-589.

Safir, K. (in prep.) *The Syntax of Anaphora*

Saito, M. and N. Fukui (1998) "Order in Phrase Structure and Movement," *Linguistic Inquiry*, 29, 439-474.

Sauerland, U. (2000) "The Content of Pronouns. Evidence from Focus," in T. Matthews and B. Jackson (eds.) *The Proceedings of SALT 10*, CLC Publications, Cornell University, Ithaca, New York.

Sigurðsson, H.A. (1989) *Verbal Syntax and Case in Icelandic*, Doctoral dissertation, University of Lund.

Sportiche, D. (1995a) "Clitic Constructions," in L. Zaring and J. Rooryck (eds.) *Phrase Structure and the Lexicon*, Kluwer, Dordrecht, 213-276.

Sportiche, Dominique (1995b) "Sketch of a reductionist approach to syntactic variation and dependencies," in H. Campos & P. Kempchinsky (eds.) *Evolution and revolution in linguistic theory*, Georgetown University Press, Washington, D.C., 356-398.

Thornton, R. and K. Wexler (1999) *Principle B, VP Ellipsis, and Interpretation in Child Grammar*, The MIT Press, Cambridge, Mass.

Thráinsson, H. (1986) "On auxiliaries, AUX and VPs in Icelandic," in L. Hellan & K.K. Christensen (eds.) *Topics in Scandinavian syntax*, Reidel, Dordrecht, 235-265.

Uriagereka, J. (1995) "Aspects of the Syntax of Clitic Placement in Western Romance," *Linguistic Inquiry* 26, 79-123.

Veraart, F. (1996) "On the Distribution of Dutch Reflexives," *MIT Occasional Papers in Linguistics*, 10.

Villalba, X. (1999) "Right Dislocation is not Right Dislocation," in O. Fullana and F. Roca (eds.) *Studies on the Syntax of Central Romance Languages. Proceedings of the III Symposium on the Syntax of Central Romance Languages*, Universitat de Girona, 227-241.

Zwart, J.-W. (this volume) "Issues Relating to a Derivational Theory of Binding".

* This paper originated in talks given at M.I.T. and at UMass Amherst in October, 1997. The material was subsequently presented at the Universities of Geneva (4/98), Florence and Padua (6/98), Venice (5/99), Pennsylvania (10/99), SUNY Stony Brook (10/00); also at LSRL/Penn State (4/98), WCCFL/UCLA (2/00) and the Comparative Germanic Syntax conference/Groningen (5/00). I am grateful to all those audiences for their helpful comments, and to Sam Epstein and Daniel Seely for their helpful comments on a first draft.

1 Cf. Cinque's (1990, 61) argument against taking clitics to be the spelling out of a trace, made on the basis of the non-licensing of parasitic gaps by clitics; similarly, cf. Hoekstra's (1999, section 3) argument against taking the pronoun in (Dutch and Frisian) left dislocation to be the spelling out of a trace.

2 Sportiche's (1995a; 1995b) approach to clitic doubling likewise has the pronoun in the numeration, but differs in having the pronoun merged into a sentential functional head position (with the double then moving to it). Whether his approach to clitic doubling (and his related recent ideas on determiners) could be unified with the antecedent-pronoun relation of (2) in a way parallel to the text proposal (i.e whether the movement-

based proposal developed in this paper could be recast in his terms) is left an open question.

3 For recent, more detailed discussion of the French complex inversion illustrated in (3), see Pollock (2000).

4 The movement of [*Juan le*] may accomplish what classic clitic movement is intended to accomplish.

5 The extraction of the double *Juan* here from within [*Juan le*] is intended to recall right-dislocation (which does not involve rightward movement) - see Kayne (1994, 83) and especially Cecchetto (1999) and Villalba (1999).

6 Though it is rejected by Chomsky (2000, note 35).

7 This differs from Nunes (2001, 322), who has non-pronunciation depend on c-command.

8 This parallel was alluded to in Kayne (1994, 158).

For recent discussion of the question of why downward movement is illegitimate, see Epstein (2001).

9 I assume that mistaken identity examples do not involve syntactically represented cases of antecedent and pronoun.

10 A point of similarity to Chomsky (1995, 211) is that no indices are needed.

11 This is similar to McCawley (1970, 178).

12 For a similar point, see Hoekstra (1999).

13 Another type of example from English is:

(i) Smith is so unhappy that everybody I know wants to offer the poor guy a job.

(ii) Smith isn't unhappy enough yet for people to be willing to offer the poor guy a job.

14 For partially similar skepticism, see Chomsky (1981, 227). See also note 39 below.

15 Locality conditions must be at issue in an attempted remnant movement derivation of (ii):

(i) ?My students should have been all of them congratulated.

(ii) *All of them should have my students been congratulated.

Note that in the right-dislocation example (see note 5):

(iii) ?They've seen that film, all of my students.

they is doubled by *all of my students*, not by *my students* alone.

16 The notion 'start out' is oversimplified - see note 36 below, where it is suggested that the Spec of a pronoun can be filled by Move as well as by pure Merge.

17 The doubling constituent [*John he*] does move within the embedded sentence in the derivation of:

(i) John thinks that he will be blamed.

followed by movement of *John* alone to the subject theta position of *think*.

18 Although clearly worse, as expected, than:

(i) Our doctor considers me intelligent.

On the other hand, it's not clear that (ii) is much better, with overlapping reference (see Chomsky (1973, 241)), than (iii):

(ii) The soldiers' wives insulted the officers.

(iii) The soldiers insulted the officers.

19 On this morpheme, see Kayne (2000a, chap. 8).

20 On the use of *same* with reflexives in some languages, see Safir (1996).

21 See Kayne (1975, §2.6); as would be weak pronouns - see Cardinaletti and Starke (1995).

It may be that covert morphemes of this sort also underlie children's Condition B 'errors' (i.e. children have Condition B (or rather what underlies it) but have greater latitude than adults in the use of covert morphemes here). Such covert morphemes would, setting aside (50) and (52), be expected to leave intact Condition C effects, which seems correct - see Thornton and Wexler (1999, 31, 50, 106).

The fact that children basically get things right with quantified antecedents (Thornton and Wexler, p. 28) suggests a link with the fact that in local contexts Italian non-reflexive pronouns show a preference for non-quantified antecedents - Kayne (2000a, 150).

22 See also Pica (1987).

23 See Hestvik (1992). I take stressed pronouns to contain unstressed ones as a subpart, as alluded to in the discussion of (49) and (51).

Thinking of Kayne (2000a, chapter 13), I take pronoun movement and the associated pied-piping to be overt. All languages such as English in which object pronouns are preceded by V must have a means of moving the verb sufficiently high (past the pronoun), either by phrasal or by head movement. Thus in:

(i) John thinks Mary will praise him.

him directly reflects the position to which the doubling constituent moves (it is not likely that the pronoun moves anywhere by itself).

The idea that English pronouns move differently from non-pronominal DPs is supported by well-known facts such as (see Maling (1976)):

(ii) I'll buy them/*the books all.

(iii) I'll talk to them/*the kids all.

24 Cf. in part my (1994, 42) claim that clitics are never adjoined to V.

25 Movement of [*John him*] to a clitic-like position within the infinitive prior to 'raising-to-object' must not be possible, perhaps because pronoun-driven movement must follow Case-driven. Relevant is whether the 'raising-to-object' landing site is above or below the subject theta position in the matrix.

26 In (i), *him* must reach a position above the subject theta one, and *John* must move into its theta position

after *'s mother* has moved out of subject theta position (see below):

(i) John's mother praises him a lot.

27 A notable exception is Pica and Snyder (1997).

28 Italian-type reflexives with *stesso* ('same'), which is not a noun, presumably achieve a similar effect somewhat differently - for relevant discussion, see Safir (1996).

Helke's proposal for possessive structure in English is very clearly supported by those varieties of English that have *hissself* and *theirselves*, and by the Amsterdam Dutch that has as a reflexive *z'n eigen* ('his own') with an empty noun (Postma (1997, 299-300)). The independence of the pronominal part and *self* is further supported by those varieties of English (like mine) in which number needn't match, as in:

(i) If someone buys themselves a new car,...

(ii) ?We each bought ourself a different kind of car.

For a different view, see Zwart (this volume).

29 For recent discussion, see Postma (1997) and references cited there.

30 Except to note, adapting a suggestion of Daniel Seely's, that in the spirit of this paper, (i) should be derived from (ii):

(i) John fixed it ((all) by) himself.

(ii) fixed it ((all) by) [John him] self

with *John* moving into the subject theta position of *fix*, and similarly for Italian emphatic pronouns.

31 For recent detailed discussion, see Cinque (2001).

32 The differences in Italian between singular and plural antecedents of *sé* must now be rethought.

33 The fact that some instances of *sé*-type elements don't show anti-locality of the Condition B sort (e.g. inherent reflexive *zich*; all instances, apparently, of German *sich*) remains to be understood. Discussion of Romance reflexive clitics is beyond the scope of this paper.

34 See Huang (1982) on Chinese, Craig (1977, 150) on Jacaltec, Allan et al. (1995, 473) on Danish; also Jayaseelan (1991, 76) on some speakers of Malayalam.

35 My English here is more restrictive than that of Lasnik and Stowell (1991, 697), who would apparently accept, with a sloppy reading:

(i) John his mother is angry at, Bill his mother isn't.

36 I assume that *J* could not start in object theta position, get Case and then move to Spec of *he* (and then to topic), for reasons that need to be elucidated.

In (i), I take *John* to move from Spec of the lower *he* to Spec of the higher *he* before moving to a theta position:

(i) John_i thinks he_i'll say he_i's hungry.

Martha McGinnis (p.c.) has called my attention to the question of relativized minimality (Rizzi (1990)) here, i.e. to the fact that there seems to be no effect. The most telling case is:

(ii) Mary's brother_i knows that their father_j thinks that he_i should show him_j more respect.

The lack of such an effect might be related to the question whether movement of the double to a higher theta position can be interpreted as attraction.

37 Cf. the existence of languages that disallow right-dislocation, such as Haitian (Michel DeGraff, p.c.); perhaps similarly Haitian also disallows 'heavy-NP shift' (see Dejean (1993)) (despite being 'VO'; this, like the existence of scrambling in 'VO' Slavic, is relevant to Saito and Fukui (1998)).

38 On the importance of *the/that*, see Aoun and Choueiri (2000, 34n).

39 This generalization to epithets would not be readily available to Hornstein's (2001) pronoun-as-copy approach.

For me, it is essential that [*Smith the idiot*] be an available doubling constituent with *Smith* in Spec and hence extractable, but not the reverse. In:

(i) That idiot Smith made another mistake.

that idiot is therefore expected not to be a constituent.

Presumably, constituents of the form [*Smith the idiot*] or [*Smith him*] can ONLY be interpreted in 'antecedent'-epithet/pronoun fashion and require movement of *Smith*; in any event, their relation to apposition needs to be looked into. On the possibility that this treatment of epithets should be generalized to all nouns (with an appropriate determiner), see Ruwet (1982, chapter 7) and Lasnik and Stowell (1991, 708n).

Phi-feature clash may underlie the fact that (i) has no interpretation in which *I* takes *John* as antecedent:

(i) John thinks I'm smart.

but one needs to take into account English quotative contexts and the more extensive use of first and second person pronouns in Kannada - see Nadahalli (1998).

If the (marginal) acceptability of the proper name examples in (30), (32) and (34) groups them with (110), then [*Smith Smith*] must be a well-formed doubling constituent and the extra restrictions on ...*Smith*...*Smith*... as compared with ...*Smith*...*he*... would be due to another factor. In which case the (relatively) well-formed double proper name example (28) would be derived via a doubling constituent plus movement. The contrast between English and (the extra possibilities with proper names found in) Malayalam (see Jayaseelan (1991)) remains to be understood.

40 As brought to my attention by Ian Roberts (p.c.), British English has:

(i) He's real smart, is John.

supporting the approach to (124) suggested in Kayne (1994, 78).

41 If (i) really involves raising of the *seem* type, then I would propose a comparable analysis:

(i) He strikes John's wife as being tired.

42 In a way that remains to be made precise - see Kayne (2000b) on the possibility that derivations are built

from right to left (in addition to being built from bottom to top), using as a primitive 'immediate precedence' (from which a limitation to one specifier per head might follow).

Thinking of Epstein (2001), it may be that sideward movement is impossible with instances of Attract, if movement of the double to a theta position is not an instance of Attract (perhaps relevant to the fact that movement of the double violates islands freely - cf. some instances of resumptives pronouns in Wh-constructions).

The contrast between (143) and (i) (with *him* bound by *many a man*):

(i) *The woman that many a man has spoken to doesn't like him.

must be due to an orthogonal property of scope (for relevant recent discussion, see Bianchi (2001)). In sentences like (ii), in the bound pronoun reading, the double can be *every young man* only if *every* is not interpreted until it reaches its scope position:

(ii) Every young man thinks he's immortal.

The alternative is to treat *every* as Sportiche has treated *the* in recent work and to have the double be just *young man*.

Recall from note 36 that movement from a theta position into the Spec of a doubling constituent should be precluded.

The fact that movement from the Spec of a doubling constituent does not (as far as I know) give rise to reconstruction effects would follow if all binding and scope-related reconstruction effects had to be analyzed approximately as in (128)/(130) - see Kayne 2001b.

2 Kayne 6/26/01

****ENDNOTES****