Kayne 6.1 & 6.4
Kap. 7.1 - 7.2
Kap.

Chapter 6
Coordination

6.1 More on Coordination

I argued in discussing example (8) of chapter 2 that the LCA provides a principled account for the existence of coordinating conjunctions. Now consider the following well-known asymmetry:

(1) I saw John, Bill and Sam.

(2) *I saw John and Bill, Sam.

And must obligatorily appear before the last coordinated DP. The structure of (1) includes as a subpart '[Bill [and Sam]]', with *and* the head. To this, *John* can be adjoined at the left, licensed by another head, which in English can fail to be overt.

(3) [John [X^0 [Bill [and Sam]]]]

Of interest is the fact that this approach to (1) does not extend to (2), desirably.

The reason is that if we start with '[John [and Bill]]' and try to add *Sam* at the right, we come up against a violation of the result from section 4.3, to the effect that specifiers—and hence adjoined phrases, which I have argued to be indistinguishable from them—must necessarily precede the phrase that they are adjoined to. Thus, we have an account for the fact that starting with *and* as the lowest head, the grammar accommodates (1) but not (2).

The question remains why the two heads in (3) could not be interchanged, incorrectly yielding (2) in a separate way.

(4) *[John [and [Bill [X^0 Sam]]]]

The solution may lie in Munn's (1993, chap. 4) proposal (made for the

case of two conjuncts) that *and* raises in LF. Adapting it to the present framework (and to the case of *n* conjuncts) leads to the following proposal: the phonetically unrealized X^0 in (3) is licensed by the LF raising of *and*. Since there is no parallel LF lowering, the phonetically unrealized X^0 of (4) fails to be licensed.

The idea that coordination takes the form '[DP_i [and DP_j]]', with the entire phrase a projection of *and*, contains two subideas that it is useful to consider separately. For example, Munn (1993) accepts the idea that '[and DP_j]' is a phrase headed by *and*, yet denies that DP_i is the specifier of that phrase. Before considering how Munn's analysis differs from the one required by the LCA, I will quickly note two points that indirectly reinforce the idea that *and* heads the phrase '[and DP_j]'. First, there are languages such as French in which *and* can appear before each conjunct.

(5) Jean connaît *et* Paul *et* Michel.
Jean knows and Paul and Michel

This supports taking *and* to be a head if the following conjecture turns out to be correct:

(6) The pattern '*and* DP *and* DP' occurs only in languages whose heads normally or largely precede their complements.

The second point is parallel to the first and depends on the fact that some languages allow *and* to appear after each conjunct, as noted for Japanese by Kuno (1973, chap. 8). For example:

(7) John *to* Mary *to* ga kekkonsita.
John and Mary and *ga* married

The corresponding conjecture the truth of which would support the head status of *and* is as follows:

(8) The pattern 'DP *and* DP *and*' occurs only in languages whose heads normally or largely come to be preceded by their complements.[1]

The most straightforward hypothesis concerning the constituent structure of (5) is '[et [Paul [et Michel]]]', in which the first *et* takes as its complement the phrase headed by the second *et* (cf. (3)).[2] For (7), things are more complex. The final *to* can readily be said to have had its complement moved to its left, but that is less clearly true of the other *to*. One possibility would be to say that the initial structure is '[to_1 [John to_2 Mary]]' and that '[John to_2 Mary]' moves leftward to Spec,to_1, but that the complement *Mary* of the head to_2 actually remains unmoved.[3]

As alluded to above, Munn (1993), although arguing for a head-complement analysis of '[and DP_j]', does not take the first conjunct to be in Spec,*and*. Instead, he takes the phrase '[and DP_j]' to be right-adjoined to the first conjunct DP_i, a proposal incompatible with the present theory, which prohibits all right-adjunction. Munn's most interesting argument comes from his analysis of across-the-board (ATB) extractions as a subcase of parasitic gaps,[4] and more specifically from his claim that the necessary empty operator must land in Spec,*and*. If he is correct in claiming that ATB extractions involve an empty operator, I must reinterpret the landing site of that empty operator as being in the specifier of the (sentential) complement of *and*,[5] which would permit Spec,*and* itself to be filled by the first conjunct.

6.2 Coordination of Heads, including Clitics

There can be no coordination of heads, in the strict sense. Although '[and XP]' is a perfectly well formed constituent, '[and X^0]' is ill formed, given my assumptions. The reason is as follows. In '[and XP]', *and* (more exactly, the nonterminal immediately and exhaustively dominating *and*) asymmetrically c-commands all the subparts of XP, and therefore *and* precedes all the corresponding terminals dominated by XP. No problem arises. In '[and X^0]', on the other hand, *and* (i.e., the nonterminal, as above) and X^0 c-command each other, so that neither asymmetrically c-commands the other, with the result that *and* and the terminal dominated by X^0 end up in no precedence relation whatsoever, in violation of the LCA, exactly as in the discussion of (2) of chapter 2.

The conclusion that heads cannot be coordinated is not usual. It does, however, immediately account for the fact that Romance clitics cannot in general be coordinated, as, for example, in French.

(9) a. *Jean te et me voit souvent.
Jean you and me sees often
b. *Je le et la vois souvent.
I him and her see often

On the assumption that clitics are heads, the ungrammaticality of (9) now follows directly.

Benincà and Cinque (1990) note, on the other hand, that some French speakers accept some examples parallel to (9) (my "?").

From the present perspective, an interesting possibility emerges, related to the following contrast:

(51) *Both John and Bill collided.

(52) Both John and Bill knew French.

When preceding an *and*-phrase, *both* necessarily imposes the distributive reading associated with sentential coordination. The same holds of objects.

(53) *I compared both John and Bill.

(54) I saw both John and Bill.

Assume that to receive a distributive/sentential reading, a coordinate phrase (whether headed by *and* or by *with*) must be preceded by a distributor, which can be abstract (i.e., phonetically unrealized).[16] Consequently, in a sentence like (49) or (50), whose predicate allows only the distributive interpretation, a distributor is necessarily present. In the latter case this obviously causes no problem, since an overt distributor is possible (*Both John and Bill are human beings*). In the former however, it does, as follows.

(33) has the representation shown in (55).

(55) $John_i$ is friends [[e]$_i$ with Bill]

By the argument of the preceding paragraph, (49) could not have the same representation, since (49) requires a covert distributor (to be noted BOTH).

(56) John is human beings [BOTH [[e]$_i$ with Bill]]

This representation will yield a violation, however, as desired, if BOTH induces a barrier to the movement of *John*. In other words, the incompatibility of *with* with the distributive/sentential interpretation of coordination can be taken to follow from the fact that (1) the first conjunct of the *with*-phrase must move out, for Case reasons, and (2) the distributive interpretation depends on the presence of an element BOTH that blocks that extraction.[17]

In conclusion to this section, then, the *with* of (55) and similar sentences might be introducing a verbal or adjectival complement, in which case there would be little here of direct relevance to the present theory. If, on the other hand, this *with* is to be related to *and*, the analysis given above provides a way to express that relation without any recourse to right-adjunction.[18]

6.4 Right Node Raising

The construction in (57) has often been analyzed in terms of a rule called right node raising (RNR) that right-adjoins a copy of the "shared" constituent to the coordinate constituent, as, for example, in Postal 1974, p. 126.

(57) Mary sold and John bought a large number of books.

Since the present theory forbids right-adjunction, I must, in agreement with Wexler and Culicover (1980, pp. 298–303), McCawley (1982), Levine (1985), and McCloskey (1986), reject this analysis.

McCawley's proposal to allow discontinuous constituent structure is in general not compatible with the present theory. In the case of (57) it amounts to the claim that *a large number of books* is dominated by the sentential node that minimally dominates *Mary sold*. Since that sentential node asymmetrically c-commands the constituents following it, including, for example, the verb *bought*, then *a large number of books* should precede *bought*, which it does not. (Recall that mutual c-command between coordinated constituents would lead to a violation of antisymmetry.)

Wexler and Culicover propose a deletion analysis of (57) whereby the object in the first conjunct is deleted under identity with the object in the second conjunct. This analysis is compatible with the LCA and I will adopt it here, although it (like McCawley's proposal) leaves open the question of why the reverse is not permitted.

(58) *Mary sold a large number of books and John bought.

(More precisely, Wexler and Culicover's analysis excludes (58) by having the structural description of the deletion rule specify that the phrase to be deleted must be adjacent to *and*.)

The deletion analysis of (57) differs sharply from the right-adjunction analysis in taking *a large number of books* to occupy a complement position of *bought*.[19] It therefore provides an immediate account of the fact that Dutch does not permit the equivalent of (57) with the object following an embedded V position (example from Teun Hoekstra).

(59) *Jan heeft gekocht en Marie heeft verkocht de spullen
Jan has bought and Marie has sold the things
waarmee zij rijk werden.
wherewith they rich became

If *de spullen* ... could be right-adjoined to the coordinate constituent, the deviance of (59) would not automatically follow from the fact that Dutch DP complements can in general not follow an embedded V.

(60) *Jan heeft gekocht de spullen.

Under the deletion analysis, on the other hand, (59) and (60) both reflect the need for Dutch DPs to move leftward past the embedded V.

Chapter 7
Complementation

7.1 Multiple Complements and Adjuncts

The LCA does not permit a head to have more than one complement (since the two complements would asymmetrically c-command subparts of each other and produce a violation of antisymmetry). Consider in this light the following sentence:

(1) John gave a book to the child.

A book and *to the child* cannot both be complements (i.e., sisters) of the verb. Furthermore, the structure '[[gave a book] to the child]' is excluded because right adjunction is not available.

The present theory thus derives the small clause analysis of (1) (i.e., '[gave [a book to the child]])', plus the fact that the small clause must have a head (if it did not, the antisymmetry requirement would again be violated).[1]

Consider further (2).

(2) John bought a book on Sunday.

By exactly the same reasoning as in the case of (1), we derive the conclusion that in (2) '[a book on Sunday]' must be a headed constituent. Put another way, we derive from first principles Larson's (1988; 1990) analysis of postcomplement adjuncts as phrases that are themselves in a complement position with respect to some head. (The category label of that head is a separate question; see note 1.)

This analysis of postcomplement adjuncts leads to a question concerning control. Consider (3).

(3) John criticized Bill after giving a talk on syntax.

The controller of the understood subject of *giving* is the matrix subject *John* and cannot be the matrix object *Bill*. Williams (1975) has made a proposal in terms of c-command. Starting from the standardly assumed constituent structure in which the *after*-clause is higher in the tree than the direct object, the proposal is that this kind of control requires that the controller c-command the embedded PRO. From my perspective, the *after*-clause is asymmetrically c-commanded by both the direct object and the subject, so that the reason for the interpretive asymmetry in (3) must be of a different sort.[2]

It might be, for example, that the PRO of (3) is a subject-oriented anaphor that needs to move at LF to the matrix Agr_S, in the spirit of Chomsky (1986b, p. 175) (see Hestvik 1992 and references cited there). The idea of taking certain instances of PRO to be subject-oriented anaphors is also appealing in the following case of complementation in French:

(4) Jean a dit à Paul être très fatigué.
Jean has said to Paul to-be very tired
'Jean has told Paul that he is very tired.'

French has many examples of infinitives approximately paraphrasable by indicatives, as in (4). (English has many fewer, one example being *John claims to be tired.*) Some of the matrix verbs compatible with this construction take an additional complement, almost always an indirect object,[3] as here. Gross (1975, pp. 76–77) observes that with these indicative-like infinitives the controller is invariably the subject, never the complement. The contrast is sharp between these and infinitives paraphrasable with subjunctives, where an indirect object controller is perfectly possible.

(5) Jean a dit à Paul de partir.
Jean has said to Paul *de* to-leave
'Jean has told Paul to leave.'

This control difference can be expressed by saying that in French the PRO subject of indicative-like infinitives is a subject-oriented anaphor (as opposed to the PRO of subjunctive-like infinitives).[4]

Somewhat similar to this control question is that of parasitic gaps. Consider (6) and (7).

(6) ?Who did you hire after you talked to?

(7) *Who went home after you talked to?

If this distinction is to be attributed to 0-subjacency, as suggested by Chomsky (1986a, p. 65), then it appears to be neutral between the standard view that *after*-clauses are attached higher than objects and the LCA-imposed analysis whereby (as in Larson's work) *after*-clauses are complements asymmetrically c-commanded by objects.

On the other hand, the distinction between (6) and (7) cannot be one of simple c-command (see Chomsky 1986a, pp. 60ff.), given Larson's analysis of adjuncts, unless the adjunct in (6) has raised leftward past the position of the object variable, in the manner of section 7.2. (One might also, in part in the spirit of the c-command approach, take the empty operator associated with parasitic gaps to be a pronominal with the property of Norwegian possessive pronouns, which can take an object antecedent, but not a subject antecedent. The requisite generalization of Hestvik's (1992, p. 573) analysis would be that the parasitic operator must move to the matrix Agr_S in both (6) and (7); being subject to Condition B, it triggers a violation in the latter.)

Depictive adjuncts of the following sort are standardly taken to be attached higher than the object:

(8) John left the party angry.

The present theory implies, rather, that they are attached lower than the object. Although I will leave the study of this kind of adjunct largely in abeyance, I will note two pieces of evidence supporting the latter view. First, it seems to me that a negated object can license an instance of *any* within the adjunct.

(9) John left none of the parties any more unsure of himself than he usually is.

Second, quantifier binding from the object to the adjunct seems possible.

(10) John left every party angry at the person who had organized it.

7.2 Heavy NP Shift

The prohibition against rightward adjunction that I have argued for makes no distinction between base-generated adjunctions and derived adjunctions. Consequently, no movement rule can adjoin anything to the right of anything.

This prohibition excludes a number of familiar transformations, notably here heavy NP shift, which has already been argued not to exist by

Larson (1988; 1990), who proposes an alternative analysis in terms of what he calls light predicate raising. Consider a case like (11).

(11) John gave to Bill all his old linguistics books.

Larson's analysis starts from a structure of the form '... [$_V$ e] [all his old linguistics books [gave to Bill]]' and moves the constituent '[gave to Bill]' (a V′ reanalyzed as a V) into the higher empty V position. This produces a derived structure in which '[gave to Bill]' is sister to '[all his old linguistics books ...]'. By having two complex constituents as sisters in a configuration that is not one of adjunction, the resulting structure violates the antisymmetry requirement imposed by the LCA. In other words, Larson's light predicate raising is not compatible with the present theory.

Let me therefore propose another reinterpretation of heavy NP shift, one that agrees with Larson's in taking this construction to involve leftward, not rightward, movement, but differs from his with respect to the question of what exactly is moved leftward. The basic idea is to think of English sentences like (11) as instances of scrambling of the sort found robustly in German,[5] the difference being that in English the verb ends up to the left of both complements, whereas in the corresponding German sentences the verb ends up to their right. More specifically, the proposal is that *to Bill* in (11) is moved leftward independently of V-movement. The PP *to Bill* originates in a small clause whose specifier position is filled by *all his old linguistics books* (essentially as in Larson's proposal). However, that PP moves by itself (without the verb) leftward past the object to a still higher specifier position.[6]

(12) John gave [[to Bill]$_i$ [X^0 [[all ... books] [Y^0 [e]$_i$ ...

A major advantage of a leftward movement reinterpretation of heavy NP shift is that it provides an immediate account of the following well-known restriction (often discussed in terms of Ross's (1967) Right Roof Constraint):

(13) The fact that John gave to Bill all his old linguistics books is irrelevant.

(14) *The fact that John gave to Bill is irrelevant all his old linguistics books.

In the absence of rightward adjunction, the only way to derive (14) would be to generate *all ... books* as complement of the matrix predicate. But that produces a straightforward theta-violation (both in the matrix, since

irrelevant has no appropriate theta-role to assign to *all ... books*, and in the embedded sentence, since one of the theta-roles associated with *give* cannot be assigned properly). Furthermore, the fact that (14) violates theta-requirements (rather than constraints on movement) appears to provide an account of its particularly strong degree of deviance, if not near incomprehensibility.

A second advantage of the present approach is seen in Dutch and German, which by and large lack heavy NP shift to postverbal position (see Groos and Van Riemsdijk 1981, p. 184; Hirschbühler and Rivero 1983, p. 515). In the absence of right-adjunction, this can be interpreted as related to the general fact that direct objects in Dutch and German must raise leftward to a position higher than the surface position of the verb (setting aside verb-second constructions). A theory that countenanced right-adjunction would, on the other hand, have difficulty explaining why right-adjunction of the direct object to VP or IP was unavailable to precisely those languages.

A third general advantage of a scrambling approach to heavy NP shift lies in the fact that objects of prepositions cannot be "heavy-NP-shifted."

(15) *John was talking to about linguistics one of my very oldest friends.

From the present perspective, the correct way to think of (15) is as reflecting the fact that—not surprisingly—leftward scrambling cannot place the scrambled constituent inside a prepositional phrase between the preposition and the complement.

The status of (15) is relevant to that of (16) (from Chomsky 1982, p. 67.)

(16) John offended by not recognizing immediately his favorite uncle from Cleveland.

Such examples are usually taken to be instances of parasitic gaps licensed by heavy NP shift, in a way sharply incompatible with the present theory, since my reinterpretation of heavy NP shift as leftward scrambling denies that the object *his favorite uncle from Cleveland* has moved in this example and thereby denies the possibility of having a parasitic gap just after *offended*. (If there were a gap in that position, it would asymmetrically c-command the lexical object, the opposite of the usual parasitic gap configuration.) That the usual analysis of (16) is not correct, and that (16) is in fact not even an instance of the heavy NP shift construction, is suggested by examples like (17).

(17) John listened to without recognizing immediately his favorite Beethoven sonata.

This seems to have the same status as (16), but it cannot be a case of heavy NP shift because of the preposition *to*, which would be incompatible with that construction, as seen in (15). Instead, in agreement with Postal (1993, n. 12) and Williams (1990), I take (17), and hence (16), to be an instance of right node raising.

It is often said that nothing can be extracted from the direct object of a structure like (12)[7] and that this is somehow related to rightward movement. Although many examples of such extraction are indeed deviant, I do not think that the generalization is accurate, given the following construction, which I find acceptable:

(18) the problem which I explained to John only part of

To the extent that extraction in (18) is more difficult than in canonical cases like (19), the present proposal could attribute the difference to the effect of the intervening PP present between V and the direct object in (18), but not in (19).

(19) the problem which I understand only part of

To my ear, the extraction violation in (20) is stronger and more consistently found than the one in (18).

(20) *the person who(m) John gave to all his old linguistics books

From the present perspective, the violation in (20) is parallel to that found in Dutch, where P-stranding from a PP scrambled leftward from its normal position is generally not possible.[8]

The question arises whether the direct object in (12) and (18) is in the same position, hierarchically speaking, as direct objects normally are in English. Although I will not pursue this question, it is tempting to think that the answer is no—that the direct object is in fact lower than the normal direct object position. Put another way, it may be that the direct object in (12) and (18) has failed to raise as far as it otherwise would have in the absence of a preceding scrambled phrase (PP).[9] This line of thought would be particularly interesting if one could claim that the position to which direct objects normally raise in English is a Case-licensing position[10] and that it is the lack of raising, through the consequent lack of overt Case licensing, that is responsible for the heaviness/focus requirement on the direct object in (18) and similar sentences.

The familiar heaviness/focus requirement is found in English not only when verb and direct object are separated by a PP but also when there is an intervening adverb.

(21) John reread carefully all his old linguistics books.

By parity of reasoning, this should have the analysis indicated in (22).

(22) ... reread [[carefully]$_i$ [X^0 [[all ... books] [Y^0 [[e]$_i$ ...

The initial small clause structure, with the adverb as complement of the head (Y^0) that the direct object is specifier of, is as in Larson's work. The leftward movement of the adverb parallels that of the PP in (12)/(18) and simultaneously recalls leftward adverb scrambling in German. In addition, we know that adverbs can be moved leftward in *wh*-constructions, so that the leftward movement indicated in (22) is perfectly plausible.[11]

(23) How carefully did John read your article?

The preposing of the PP in (18) is reminiscent of a French construction mentioned in Kayne 1975, chap. 1, n. 81.

(24)
?J'aurais, à ces garçons-là, permis de fumer une cigarette.
I would-have to those boys there permitted *de* to-smoke a cigarette

Here the landing site of the leftward-moved PP is to the left of and above the participle. This French construction has the property that such preposing is prohibited with direct objects.

(25) *J'aurais, Jean, invité à la soirée.
I would-have Jean invited to the party

This contrast between (24) and (25) recalls Cinque's (1990, p. 71) discussion of Italian clitic left-dislocation (possible without a clitic with PPs but not with direct objects) and might be explicable in the way he proposes, if subjects originate in a position below the preparticipial landing site.

Of interest to the question of heavy NP shift and its reinterpretation in terms of leftward movement is the similarity between (24)/(25) and the following English construction:

(26) Mary spoke to John, but she didn't to Bill.

(27) ?Mary criticized John, but she didn't Bill.

Whatever the absolute judgments on these, it is clear that the first is easier to accept.[12] The similarity to the French construction can be expressed if

we take this VP-subdeletion in English to involve what could be called inner topicalization.

(28) ... she didn't [[to Bill] X^0 [$_{VP}$ ...

The PP is moved leftward to a position above VP[13] (whose internal structure in this construction is left open). The lesser acceptability of the corresponding direct object example is to be thought of as related to the (sharper) deviance of (25). This analysis of (26), which establishes a partial similarity between (26) and (11), allows an account of a fact noted by Kuno (1975, p. 162), namely, that (26)–(27) cannot be used as felicitous answers to questions, as follows:

(29) Who did Mary speak to? She spoke/*did to John.

From the perspective of (28), this fact is comparable to (30).

(30) Who did Mary speak to? *To John she spoke.

Although *To John she spoke* is grammatical, it is not possible in the context given in (30). The generalization that seems to hold in standard English is that (apart from interrogatives and clefts) leftward-moved phrases cannot be interpreted as focused. In Chomsky's (1976) terms, they are not subject to successful LF movement. Correspondingly, heavy NP shift, VP-subdeletion, and topicalization share the property seen (for the first of these) in (20).

(31) I'm not sure who Mary spoke to, but I (do) know who Bill spoke/*did to.

(32) *Who did you say that to, Mary had already spoken?

In each of these three constructions the preposition of the leftward-moved PP cannot be stranded.

The heaviness/focus requirement on the direct object that holds for (11) and (21) is not found in (33), even though the verb is separated there, too, from the direct object.

(33) John picked up the book.

If the suggestion is correct that the direct object in sentences like (18) and (21) is lower than the normal direct object position, then *the book* in (33) must be in a position higher than that of the direct object in (11), (18), or (21). In any event, the analysis of (33) given in Kayne 1985 must be

partially incorrect, since it depended on right-adjunction (of *the book* to V').

On the other hand, the basic idea of that article, namely, that particle constructions are instances of small clauses, is straightforwardly compatible with the present theory. Thus, (34) can be analyzed as containing a small clause headed by the particle, with *the book* in the specifier position of that small clause.

(34) John picked the book up.

As far as (33) is concerned, Koopman's (1993b) analysis of Dutch particles as incorporating into V could be transposed to English, if we assume with her that following incorporation, the V can excorporate from the 'P + V' constituent. Then, starting from a structure approximately like (34), incorporation would yield an intermediate (*)*John uppicked the book*. Excorporation (see Roberts 1991) of V to a higher head position would give (33).[14]

Just as (33) must not involve right-adjunction, so Romance subject inversion must not involve right-adjunction of the subject to VP (or to any other category). Thus, an analysis of (35) in which the subject DP is right-adjoined to VP (see Rizzi 1990b, p. 63) is not possible.

(35) Ha telefonato Gianni.
has telephoned Gianni

Rather, as noted by Belletti (1990, p. 112), even when the verb is participial, the order verb-subject can be compatible with a structure in which the subject is left-adjoined to VP (in present terms, is in the specifier of some functional head above VP), as long as the (participial) verb moves high enough. Since Belletti (1990) shows convincingly that Italian verbs, including participles, move substantially higher than their initial position, I take *Gianni* in (35) to be in a left-hand specifier position lower than (asymmetrically c-commanded by) the participle *telefonato*.[15]

Subject inversion is more limited in French than in Italian, but the same question arises for those cases in which French does admit it. For example:

(36) Quand a téléphoné Jean?
when has telephoned Jean

Although French past participles raise less robustly than Italian ones, I will take the participle in (36) to have moved high enough to asymmetri-

cally c-command the (left-hand) specifier position in which the subject *Jean* is found.[16]

7.3 Right-Dislocations

The prohibition against right-adjunction that I have argued must hold does not seem to allow for right-dislocations.

(37) He's real smart, John.

I would like to suggest a link with the following construction:

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

(38) clearly involves two clauses, the second of which is reduced. The fact that *he* and *John* are coreferential distinguishes this construction sharply from the following, where comparable coreference is not possible:

(39) *He$_i$ thinks John$_i$ is (smart).

(40) *?He$_i$ left when John$_i$ could.

I propose, then, that in (38) *John is* is a (reduced) clause that has *he's real smart* left-adjoined to it (with an empty functional head mediating that adjunction).[17]

(41) [[he's real smart] [X^0 [John is ...]]]

The reduction in (38) is of the familiar VP-deletion type.[18] It may be now that (37) is essentially parallel to (38) except for a more extensive reduction.[19]

(42) [[he's real smart] [X^0 [John ...]]]

The asymmetry between left-adjunctions (licit) and right-adjunctions (illicit) that the LCA-based theory imposes has thus led to a significant asymmetry between left-dislocations and right-dislocations, in the sense that the former, unlike the latter, do not require as novel an analysis. In other words, a left-dislocation such as (43) can have the analysis shown in (44).

(43) John, he's real smart.

(44) [John [X^0 [he's real smart]]]

Except for the necessary presence of an abstract X^0, this is not terribly

different from, for example, Cinque's (1990) treatment of what he calls clitic left-dislocation.

The treatment of (37) in terms of the construction illustrated in (38) is not the only one that can be imagined. For the Romance languages, especially, a rather different approach to right-dislocation comes to mind, which I will now explore briefly.

The following is a typical (French) example:

(45) Jean la voit souvent, Marie.
Jean her sees often Marie

The direct object *Marie* occurs in the presence of a corresponding clitic *la*. There is an intonation contour specific to dislocation constructions (and similar to that of (37)) that is indicated by the comma placed before the dislocated phrase *Marie*.

It is usually assumed that the intonation contour in question and the presence of the extra clitic go together. However, Antinucci and Cinque (1977) and more explicitly Benincà (1988a, p. 146) show that in Italian right-dislocation the clitic is actually optional.

(46) Lo porto domani, il dolce.
it I-bring tomorrow the sweet

(47) Porto domani, il dolce.

Both of these are possible, pronounced with the same characteristic right-dislocation intonation.[20]

Once we see that right-dislocation does not depend on the presence of a clitic doubling an object, we are led to ask the converse question: does the doubling clitic in (46) depend on the right-dislocation intonation? The standard answer is yes, based on the fact that without this characteristic intonation (46) is not possible.

(48) *Lo porto domani il dolce.

However, Cinque (1990, p. 178) notes that in some cases (more exactly, in the presence of another object clitic) a dative clitic can double a lexical DP with normal intonation, in colloquial Italian.

(49) Glielo dico a suo fratello.
him$_{DAT}$ + it I-say to his brother

The right-dislocation counterpart is also possible.

(50) Glielo dico, a suo fratello.