

Chapter 10

Conclusion

Starting from the intuition that a parsimonious UG would not have linear order and hierarchical structure be as independent of one another as syntactic theory normally assumes, I have proposed a Linear Correspondence Axiom (LCA) that brings hierarchical structure and linear order together. It does so by establishing a mapping between asymmetric c-command and linear precedence¹ and requiring that the result of the mapping be a full linear ordering of the terminals of the phrase marker in question.

From this perspective, linear order turns out to be more fundamental to syntax than is normally thought.² As a result of the LCA, the property of antisymmetry that a linear ordering has is inherited by the hierarchical structure. I have argued that this is behind X-bar theory, or rather, that X-bar theory, although largely accurate in its standard form, should not be considered to be a primitive part of syntactic theory (i.e., of UG).³ What is primitive in UG is the LCA, from which follow familiar X-bar theoretic properties such as (1) the need for a phrase to have a head, (2) the impossibility for a phrase to have more than one head, (3) the limitation to one specifier per phrase, (4) the limitation to one sister complement per head, and (5) the requirement that a complement not be a bare head.

Combined with a fairly standard definition of c-command in terms of category (as opposed to segment), the LCA goes beyond X-bar theory in the extent to which it limits phrase structure diversity. The LCA limits adjunctions to one per phrase or head adjoined to. In the case of adjunctions to phrases, that amounts to saying that there is no distinction between adjunctions and specifiers.

Extending the LCA-based theory to subword structure derives Williams's (1981) right-hand head generalization for morphology and leads

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to the proposal that clitics must adjoin to empty heads rather than to (finite) verbs.

I have derived the result that specifier-head-complement order is the only order made available by UG and consequently that there can be no directionality parameter for word order.

The empirical ramifications of these proposals are vast, and I have attempted to explore only a small fraction of them, hoping to give a sense of the kinds of advantages they offer. Time will tell whether the advantages are as one-sided as I presently think.

It is difficult to show with any degree of certainty that a particular theory of syntax is systematically more restrictive than others. Yet I think it plausible to claim that the present theory does not force one to introduce mechanisms that are not already (implicitly) part of syntactic theory. Although the prohibition against multiple adjunctions leads me to posit numerous abstract functional heads, I do not think that other theories can do without such entities.

If it is true that no (or few) new mechanisms are needed under this LCA-based theory, then we can focus without hesitation on the ways in which it has achieved substantially increased restrictiveness: no rightward adjunction movement rules are permitted, no right-adjunctions are permitted in the base; there is never a choice available between multiple left-adjunctions and multiple heads each with one specifier; no right-hand specifier positions are available; no left-hand complement positions are available; and all the advantages in restrictiveness of binary branching are maintained.⁴

To a significant extent, the LCA-based theory of syntax proposed here allows us to have the all too infrequent pleasure of seeing the theory choose the analysis.

Notes

Chapter 1

1. Strictly speaking, the term should be *left-locally total*.
2. See Kayne 1984, chaps. 6 and 7.

Chapter 2

1. Note that $\langle j, p \rangle$ corresponds to both $d\langle J, N \rangle$ and $d\langle J, P \rangle$.
2. These two cases differ only in that in one instance M and P stand for identically labeled nodes and in the other they do not. Whether M and P are identical in category or not has no effect on the way in which the LCA applies here.
3. The question arises of what happens if *John* (or any phrase) is moved. If the result of movement is that DP (or NP) dominates just a trace, then *see* and that trace will not be ordered at all with respect to one another, since the internal structure of DP (or NP), which ensured antisymmetry, will have been lost. This might conceivably be a tolerable consequence, since traces are in any event not visible. It is notable, though, that this question does not arise if movement transformations leave a copy rather than a trace (see Chomsky 1993).
4. Where antisymmetry is in addition violated by $\langle q, t \rangle$ and $\langle t, q \rangle$.
5. See Larson 1990, p. 595, Munn 1992, and Thiersch 1993.

Chapter 3

1. In the sense of Chomsky (1986a, p. 9): X excludes Y if no segment of X dominates Y .
 2. The category P consisting of the two segments does not c-command Q by virtue of the exclusion part of the definition of c-command.
 3. $\langle R, M \rangle$ is not in this set because P , which dominates R , does not dominate M , since only one of its segments dominates M .
- $\langle M, R \rangle$ is in A here since every category dominating M dominates R . This holds vacuously if P is the root node, nonvacuously otherwise. (The vacuous case could be eliminated by specifying in the definition of c-command "... and every

category *or segment* that dominates X dominates Y⁺, but that would prevent c-command from out of adjunction configurations, in the sense discussed below.)

4. Without the segment/category distinction, and hence without specifiers or adjoined phrases, UG would be significantly less rich than we know it to be. On the other hand, it is worth noting that certain phrases, such as PP, DP, and NP, typically display no specifier (or adjoined phrase) and that if Agr_{cs} could bear a theta-role while still being a pure head of AgrP, then a verb could have a subject without having a specifier. If one were speculating about the evolution of UG, one would therefore be led to consider the possibility of a stage lacking the category/segment distinction.

5. See Fukui 1986 on Japanese. From the present perspective, there is a basic distinction between heads (categories that dominate no nonterminal) and non-heads (categories that dominate at least one nonterminal). Within the class of nonheads, a further distinction can be made between those that have a phrase adjoined to them and those that do not. See also the second paragraph of note 7.

6. See Kayne 1991, p. 649. The text proposal does not by itself prohibit the adjoined clitic from moving farther up; see Roberts 1991 and Kayne 1991, p. 661n.

7. See Chomsky 1986a, p. 4. The text prediction is incompatible with the movement of *to*-VP proposed in Kayne 1985, p. 115 (for recent discussion of particle constructions, see den Dikken 1992) and is similarly incompatible with Van Riemsdijk's (1989) analysis of *Butcher habe ich keine mehr* 'books have I no more' as involving movement of X'. Den Besten and Webelhuth's (1990) analysis of German remnant topicalization is compatible with the text prediction as long as the XP moved out of the to-be-topicalized VP is not adjoined to that VP (rather, the XP must move higher).

Chomsky's (1986a, p. 6) proposal that adjunction to an argument is prohibited (see McCloskey 1992) could perhaps be derived if arguments all had to move (by LF) and if what a specifier is adjoined to is not an argument.

8. Note that the category M does not dominate Q, so that there is no need to take M to dominate itself. On the contrary, it is in all probability preferable that dominance be irreflexive. See Chomsky 1986a, n. 11. Compare also the irreflexivity of asymmetric c-command and of linear precedence itself, which I argued earlier to be significantly similar to dominance.

9. Note that the category M does not dominate q, since only one of its segments does.

10. See Chomsky and Lasnik 1993, sec. 3; also the observations in Kayne 1975, secs. 2.3, 2.4, to the effect that clitics in French are never phrasal.

Note that if the head to which the nonhead was adjoined had no complement structure at all, then the violation displayed in the text would not occur; however, with no complement structure, there would be no source for the adjoined phrase. On compounds, see below in section 4.5.

11. Recall that K asymmetrically c-commands Q since every category dominating K dominates Q (so that K c-commands Q), whereas Q does not exclude K (so that Q cannot c-command K).

12. This constituent structure may turn out to be supported by the fact that Italian dative clitic doubling is facilitated by the presence of an adjacent accusative clitic; see Cinque 1990, p. 178, n. 4.

13. These are the [+person] clitics, in the terms used in Kayne 1993, sec. 3.6.

14. This formulation would prohibit analyzing (i) as involving adjunction of *ne* to *vous*.

- (i) Jean *ne* vous voit jamais.
Jean NEG you sees never
'Jean never sees you.'

Ne must then either be sitting in an independent functional head position Neg⁰, as proposed in Kayne 1989b, or have been cliticized as in Pollock 1989 to a head distinct from *vous*.

The order *vous ne*, with *vous* an object clitic (and similarly for *me*, *te*, *nous*, *se*), is found in some Romance languages/dialects (see Butz 1981; Parry 1984). It probably involves the adjunction of that object clitic to *ne*.

15. See the discussion in Kayne 1975, sec. 2.16; also Postal 1990.

16. Similarly, the construction given in (i), from Rooryck 1992, should probably be analyzed as having the first clitic, *lui*, adjoined to Agr = /z/, and the second, *en*, adjoined to the next functional head below that Agr.

- (i) Donne lui- /z/ -en
give him/her-dat of-it
'Give him/her (some) of it.'

17. Compare Rizzi's (1991) reinterpretation of May's (1985, p. 17) *Wh*-Criterion. According to Webelhuth (1992, p. 129), relative clauses like the one in *John Smith pictures of whom I have never liked*, is... are limited to English, among the Germanic languages. This could be accounted for if the other Germanic languages had a condition on relative *wh*-elements parallel to (24). Italian relative *il quale* acts like (literary) English, but Italian relative *cui* does not (see Cinque 1978); in *il cui libro* 'the whose book', *il cui* must probably count as a *wh*-element, unless *il* is adjoined to *cui*.

The question of what precisely makes *what city*, *which book* into *wh*-phrases in the text sense is left open. Hungarian *Mari melyik kalapja* 'Mary, which hat-Agr', from Szabolcsi, to appear, indicates that the *wh*-word does not universally need to overtly be in the highest specifier position of the *wh*-phrase.

18. The text proposal could be recast in Chomsky's (1993, p. 32) terms, given that my proposal about specifiers would mean that the specifier of the specifier of a head is in the checking domain of that head.

Note that (23) seems to show that LF movement of the sort that May (1985, p. 69) appeals to in order to account for the (for me some what marginal) bound variable reading of *Somebody from every city despises it* is too powerful, in that it would permit (23) to be saved.

The absence of pied-piping with *whose* + gerund discussed by Webelhuth (1992, p. 133) could, from my perspective, suggest that gerunds have an extra layer of

structure (like CP) as compared with (derived) nominals and that *who(se)* in gerunds is necessarily always below that level.

19. See Taraldsen 1978 on Scandinavian.

(22) and (23) are ungrammatical in all registers of English.

20. More specifically, Van Riemsdijk's proposal is that *what* moves through a Comp position associated with PP. In present terms, his proposal would imply that there is at least one functional head associated with and above P⁰; see also Koopman 1993b. For my purposes, what is most important is that in (26) *what* move in LF into the specifier position of the highest such functional head. See the discussion of (33) in the text.

21. I have found one speaker of English who allows movement to Spec,PP to be followed at least sometimes by movement to Spec,CP of the whole PP, yielding sentences like %*What about are you thinking?*

22. Partially as in Huang and Tang 1991, p. 266, on Chinese *ziji*. Note that my claim that specifiers are adjoined and hence c-command out of the containing phrase might allow dispensing with Huang and Tang's notion "sub-command." The notion "closer c-commander" would recall proposals made by Rizzi (1990b) and Chomsky (1973, p. 270; 1993), and "potential antecedent" Chomsky's (1973, p. 262) notion "possible controller."

23. For important discussion of a language where Condition C appears not to hold, see Jayaseelan 1991.

24. See Aoun and Sportiche 1981 for data from (certain speakers of) Lebanese Arabic. Clitic doubling in Arabic might be amenable to an analysis along the lines of section 7.3.

25. This account requires the (reasonable) assumption that neither C⁰ nor any other functional head is automatically available in root sentences in a position above IP, so that in these languages *gestern* is not adjoinable to any higher projection, either.

26. Apart from interrogatives. Notice that interrogatives with inversion are part of all registers of English, whereas (41) is not colloquial.

27. For reasons that are unclear (as in the contrast with German). Note that the parallelism between (43) and (44) is also found in C-less relatives, as noted by Doherty (to appear). Parallel facts are found in Swedish (for which Platzack (1985, p. 45) suggests a different interpretation).

28. Alongside the prohibition against two specifier positions, there is a prohibition that follows from the LCA against a head having two sister complements, since '[X YP ZP]' will yield a violation of antisymmetry (YP and ZP will c-command each other). A head can have more than one "complement" only by grouping them into small clauses, as in Kayne 1981c and especially Larson 1988, with the essential addition of a head position internal to each small clause.

29. In the theory assumed by Sportiche and the other references mentioned just above, phrasal movements can be either to specifier positions or to adjoined positions. In the present theory, the choice between licensing a phrase via a spec-head configuration and licensing it via an adjunction relation is not a real one.

All cases of apparent multiple adjunction to the same nonhead must involve either covert heads, as in the discussion of (39), or else absorption, as in Chomsky 1993, where one (*wh*-)phrase adjoins to another (possible in the present framework only if the one adjoined to has no other specifier).

The structures proposed by May (1985, p. 34) for multiple QR and the formulation of his Scope Principle are not compatible with the text proposals.

30. I use the term much as in Munsken 1982; that is, it refers either to '[ZP [X YP]]' or to an '[X YP]' to which nothing is adjoined (i.e., that has no specifier).

The root phrase itself will be unlicensed in the text sense unless it is sister to an abstract head, a possibility that I will return to later.

31. In addition to being affected by the intrinsic properties of specifier and head, the matching question will be affected by locality conditions, in particular by Relativized Minimality (Rizzi 1990b)/Economy ("shortest movement"; Chomsky 1993).

Adnominal adjective phrases that are not complements must then be specifiers, each of a separate head, a position that has been argued for on independent grounds by Cinque (1992, 1993b); see also section 8.4.

The same must hold for adverb phrases.

32. Left open is the question of what determines when Agr⁰ has phonetic realization, and what features of the specifier can or must be reflected in that realization.

33. This exclusion of (47) is essentially akin to the exclusion of (3) of chapter 2.

34. The proposal in Kayne 1991, p. 668, to the effect that French *de* can be in Spec,CP can now be correct only if interpreted to mean that '[_{NP} I_P de]_{CP}' can be in Spec,CP.

Chapter 4

1. See Bach 1971, p. 160. Ullian (1978, p. 229) mentions one language (Khasi) that appears to have question words in sentence-final position. In languages like Hungarian, the interrogative phrase, although not sentence-initial, clearly seems to precede the head it is associated with.

2. This point is made by Johnson (1991, p. 584).

3. See Emonds 1980 and many more recent works.

4. See the convincing arguments given by Ordóñez (1994) in favor of the idea that in Spanish VOS sentences the object asymmetrically c-commands the subject.

5. The discussion in section 3.7 is compatible with this as long as this abstract head A does not count as being the highest element of a chain.

6. See Kayne 1989b, 1991. There I proposed that apparent instances of a clitic adjoining to the right (e.g., of an infinitive, in Italian) are better analyzed as left-adjunction of the clitic to an abstract functional head, plus movement of the infinitive past the clitic. Another possibility, which I will not pursue here, would be for the infinitive to left-adjoin to the clitic. For relevant discussion, see Benincà and Cinque 1990.

Similar considerations hold for Romance subject clitic inversion, which might involve left-adjunction of the finite verb to the subject clitic.

7. Anderson (1992, p. 40) objects that Williams's proposal would incorrectly allow category changing via right-adjunction. Since the LCA-based theory I am developing here does not admit right-adjunction at all, this objection does not carry over.
8. Recall from section 3.3 that more than one adjunction to a given head is not permissible. Hence, it would not be possible to take *turn* to be adjoined to *-s* and *over* to be adjoined to *turns* (i.e., to *-s*).
9. Anderson (1992, p. 312) notes apparent counterexamples of the type *bejewel*, *deflea*, *enthrone*. The prefixes in these examples, though, are arguably incorporated particles (see, for example, the proposal concerning *be-* discussed in Mulder 1992, p. 178) and from my perspective, then, definitely not heads of *W*. The right-hand nominal morpheme presumably has the same status as in Hale and Keyser's (1993) analysis of (i), involving noun incorporation to an abstract *V*, which is the head.
 - (i) John will shelve the book.
10. The question of bracketing paradoxes is beyond the scope of this monograph. For relevant discussion, see Bok-Benemina 1994.
- For relevant discussion of morphology of the Arabic type, see Benmamoun and Vergnaud 1994.
11. This compound noun can be followed by an adjective (phrase), which could potentially play the role of *S* in (9). The solution is to treat such adjective phrases as being reduced relative clauses; on which, see section 8.4.
- There is at least one type of English compound noun that can cooccur with a complement.
 - (i) John's putdown(s) of Bill
 This appears to match (9) closely and would therefore be expected to be ungrammatical under the strong interpretation of the LCA applying to subword structure that I have been entertaining in this section. It may be that (i), too, is a reduced relative, given (ii).
 - (ii) Those putdowns were all of Bill.
 Note that compounds such as (12) do not fall under the scope of (11). Nor, probably, does *putdown*, in particular if the internal structure is [_N [_V put] [_{PP} [_P down]]].
12. Similar considerations hold for English *John often speaks of you*, and the like.

Sentences with two preverbal clitics pose no new problems if the two clitics form a constituent, as discussed above for (9) of chapter 3. (Note that such a constituent as *me lo 'mear* 'it' in Italian must have the further structure '[_{me} [_I o]], to avoid having multiple adjunction to *-o*.)

If two preverbal clitics are adjoined to separate functional heads, then exclusion of an adverb between them would require either dense stepwise movement of the subject DP or else movement of a phrase matching the second clitic, in the manner of Sportiche (1992), whose proposals about clitics mine are fairly close to.

13. I am setting aside here the question of left-dislocations. Burridge (1983) claims that the Dutch preverbal negative clitic stopped appearing in root clauses as Dutch became strictly verb-second. If so, then this negative morpheme should be considered to have the same property attributed in the text to pronominal clitics. That is, it must not be able to adjoin to the finite verb; instead, it must only be able to adjoin to (or to occupy) a separate head position.
14. It seems clear that the clitic is not in *C'* either.
15. I am assuming that *Jean* here can only be in the specifier position just below *C'*. For the subject to be lower than that, an empty category in subject position must be licensed. In French that is possible in "stylistic inversion" contexts (see Kayne 1980, 1986).
 - (i) Où est Jean?
where is Jean
 In Italian and other Romance pro-drop languages an empty category in subject position is more widely possible.

The inversion seen in (23), although not involving the raising of the finite *V* to *C*, presumably does involve the raising of *V* to some intermediate position—possibly left-adjoining to the subject clitic itself. For further discussion, see Sportiche, n.d.
16. See Chomsky 1991 on the deletion in LF of (the trace of) Agr.
17. This conclusion is not compatible with Rizzi's (1991) way of extending the *wh*-Criterion to Romance inversion constructions.
18. If the verb in (26) moves instead to a functional head just below *C'*, as proposed by Laka (1990) and Zanuttini (to appear), then the normal position of Romance clitics must be below that projection.
19. In Kayne 1991 I took that landing site to be adjunction to *T'*, which is not compatible with the conclusion of section 3.7 above. The alternatives are (1) adjunction of the infinitive to the clitic, which would recall proposals by Benincà and Cinque (1990) and (for Semitic, but specifically not for Romance, clitics) Shlonsky (1994) and Roberts and Shlonsky (1994), and (2) adjunction (or substitution) of the infinitive to a functional head higher than that to which the clitic is adjoined, as proposed by Belletti (1990) and Rooryck (1992). Either alternative requires rethinking section 2 of Kayne 1991, as does the next to last paragraph of note 16 of chapter 5. For an interesting proposal concerning the licensing of *if*, see Rooryck 1992, p. 247.

Chapter 5

1. Nor can the complex word orders of languages like Chinese and Kpelle be partially dependent on a directionality setting, as in Travis 1989.
2. Movement to a *c*-commanding but not asymmetrically *c*-commanding position is never possible under the present theory, most clearly if movement is copying, since the two copies would violate antisymmetry (each would asymmetrically *c*-command the subparts of the other).

One would then say that LF raising of *to* to *for* or to an exceptional Case-marking (ECM) or raising verb (see, in part, Baker 1988a, p. 489) neutralizes the violation. For French, one might say that the infinitival suffix *-r* plays the role of *to*, but that *-r* cannot incorporate in parallel fashion because *-r* is not prepositional (see, in part, Kayne 1981b). (Something further would need to be said about 'seem' in French.) Apparent cases of infinitival subjects in certain *wh*-constructions would be treated largely along the lines proposed by Pollock (1985). In agreement with Balin (1993), PRO would be considered not to have raised past *to*.

This approach to (i) would lead to the expectation that a language that had a counterpart of *to*/*-r*, but in which that I⁰ was final (i.e., in which the complement of that I⁰ moved up to specifier position), would allow the equivalent of (i).

17. See Steever 1987, p. 739, and Krishnamurti and Gwynn 1985, p. 137.

Consideration of strongly head-final languages with subject-verb agreement calls into question some or much of Kuroda 1988.

18. If Chinese has a covert declarative C⁰, then it must be a final C⁰.

19. On the other hand, Marathi *aapaa* can be a nominative subject preceded by *ki* according to Wali and Subbarao (1991, p. 1096). Either they are right in claiming that *aapaa* is not an anaphor, or else *aapaa* must have a way of evading the blocking effect of *ki*; compare the fact that *that*-trace effects can be evaded even in certain varieties of English, as discussed by Sobin (1987).

The absence of nominative (and certain genitive) reflexives in Turkish (see George and Kornfilt 1981) might have to do with their not being monomorphemic (see Pica 1987), contrary to those discussed in the text (if so, then English *himself* is not directly relevant).

20. This is an oversimplification, given languages like Hungarian and in a more general way those discussed by Bhatt and Yoon (1992).

21. Huang's (1982) proposal for LF *wh*-movement in Chinese (and, by extension, in other *wh*-in-situ languages) raises the question of what the landing site could be. Conceivably, reconstruction makes one available that was not available in the overt syntax. Aoun and Li's (1993) proposal for empty operator movement in Chinese raises the same question. Perhaps there is an initial C⁰ in these languages that only licenses an empty operator, much like infinitival inflection licenses only an empty DP in many languages.

22. Imbabura Quechua is a largely head-final language that has obligatory *wh*-movement to clause-initial position; Hermon (1985, p. 36) observes that a question marker is suffixed to the *wh*-phrase. As Luigi Rizzi (personal communication) has pointed out, this question marker might be an overt initial C⁰, confirming that movement of IP to Spec,CP has not taken place. See Hermon's (p. 146) own assumption that Comp (in present terms, C⁰) is to the left (of the overt IP).

In root *wh*-questions in Vata (see Koopman 1984, pp. 35, 89) the *wh*-phrase is initial; they also have a clause-final element *la* that the text proposal must analyze as not being the head of the projection in whose specifier the *wh*-phrase is found. The head whose specifier does contain the *wh*-phrase must have an unmoved complement.

Somewhat similar to Quechua is Kamaurá, as discussed by Brandon and Seki (1981), with preposing of interrogative words, yet with final complementizers and relativizers. These will be final heads (i.e., heads whose complements have moved leftward past them); interrogative words will be in the specifier of a head (perhaps the empty counterpart of the overtly initial yes-no particle) whose complement has not raised past it.

On the fact that languages display less internal cross-categorical uniformity with respect to the head-complement relation than is commonly thought, see the last paragraphs of note 14.

Chapter 6

1. That is, in (largely) head-final languages, in the sense of *head-final* determined by the present theory.

2. The alternative would be to take *et Paul* to be in the specifier of the second *et*. This kind of structure seems more plausible, though, for English *both, either, neither*; for example, in *both John and Bill* it might be that *both John* is in the specifier of *and*, with a kind of spec-head agreement between *both* and *and* licensing *both*.

3. See the third paragraph of note 14 of chapter 5. The possibility that Japanese (and similarly Korean) could have some overt heads whose overt complements follow them should be considered for *wa, ga* (and *o*) as well. A sentence of the form 'John *ga* Bill *o*...' would then be represented as follows:

(i) [John [*ga* [Bill [*o*...]]]]

If *wa* had the property that its specifier must be filled, then we would have an explanation for the absence of (ii).

(ii) *DP *ga wa*...

Since 'DP *ga*' is not a phrase under this hypothesis, *wa* would have nothing in its specifier.

The preceding analysis of *wa, ga* (and perhaps *o*) was suggested to me by Brody's (1990, p. 116) comparable proposal for Hungarian *is* 'also'. Also see Anderson's (1984) discussion of Kwakwaka Case markers, which are phrase-initial syntactically but then cliticize onto the preceding word.

Carlson (1983, pp. 80ff.) discusses the fact that the Latin coordinating conjunction *-que* is cliticized to the first word of the second conjunct (when there are two conjuncts). This can be reinterpreted as follows: starting from '[XP [que YP]]', an initial head within YP moves out of YP and left-adjoins to *que*.

Carlson states that if the first word of the relevant conjunct is a monosyllabic preposition, then *que* cliticizes to the second word. From the perspective of the preceding paragraph, this should be reinterpreted as follows: a monosyllabic preposition + following word (e.g., demonstrative, with the preposition left-adjoined to it) can move leftward as a single head constituent, left-adjoining to *que* (and stranding the noun, in that case). (It may be that *monosyllabic preposition* here is related to the distinction in French between *à* 'to/at' and *contre* 'against' noted by Obenauer (1976, pp. 11ff.) to hold for leftward movement of P +

combien 'how much/many'; also see Kayne 1981a, sec. 1.2.) As for how these prepositions come to be left-adjoined to a demonstrative X^0 , it may be appropriate to think of them as the spelling out of Case; see Vergnaud 1974, chap. 3, n. 35.

4. Postal (1993) argues plausibly that parasitic gaps cannot be taken to be a subcase of ATB extractions. The facts he adduces may, however, be compatible with Munn's position, if the extra restrictions observed with parasitic gaps can be attributed to the presence of an extra intervening *wh*-phrase or element like *with-out* or *before*, not present in ATB constructions.

5. Indirectly relevant here is the general question of whether sentential coordination and DP coordination are exactly parallel. The former perhaps more readily allows (the equivalent of) *and* not to appear, in some languages; see Payne 1985, p. 25. (Notable in English is *They went, the one to Paris, the other to London*, which deserves more study; concerning French, see Kayne 1975, sec. 1.9.) It may be that adverbial adjuncts can sometimes be used with the effect of coordination. (Examples might be *the pool that he went to the hotel and jumped into* versus **the pool into which he went to the hotel and jumped*, recalling extraction from adjuncts; see Chomsky 1982, p. 72, citing an observation by Adriana Belletti.)

Of relevance here is the question of what category is being coordinated in sentential coordination. Godard's (1989, p. 500) facts concerning the obligatory repetition of complementizer *que* in French could be taken to indicate that IP-coordination is not (readily) available.

6. I leave open the question of how best to express the fact that RNR extends to these clitic cases only marginally. Benincà and Cinque (1990) give Romanian examples, too, but note that the corresponding Italian examples are sharply ungrammatical. Sportiche (n.d.) states that such examples are better with disjunction than with conjunction, giving the example in (i).

- (i) ?*Pierre le ou les verra au concert.*
Pierre him or them will-see at-the concert

7. The conclusion reached in section 3.7 that heads cannot be specifiers will exclude '[Cl and DP_{lex}]'.

8. The landing site of the moved determiner must be low enough that the finite verb can move past it, but not so low that adverbs could intervene between it and the landing site of the finite verb. That a finite verb can move past a clitic is supported by certain root constructions in Portuguese and Galician, and more generally by the northern Italian dialect spoken in Borgomanero, where the finite verb precedes object clitics and can be separated from them by various elements, including the postverbal negation and nonclitic subject pronouns. For example:

- (i) *i dis mévi 'subject-clitic' sg say I (cf. French moi) youDAT come (cf. Italian vi)'*

The example, one of many, is from Colombo 1967, p. 55.

9. Similarly for *John* (repeatedly) *ran up and (then) down the stairs*.

He pulled the lever up and (then) down should be taken to be comparable to *He pulled the cat off the table and (then) onto his lap*, with XP-coordination.

10. Dougherty's (1971, p. 307) example *hem and haw* must now be seen as an instance of VP-coordination, and not V-coordination.

11. As suggested in essence by McCloskey and Hale (1984, p. 524n.), Alternatively, there might be DP-coordination with an empty D^0 in the second DP. For relevant discussion, see Milner 1978, pp. 89ff.

Another candidate for head coordination is the repetitive coordination construction.

- (i) *John read and read and read.*

But Lakoff and Peters (1969, p. 122n.) note the following example:

- (ii) *I hit him and hit him and hit him—until he died.*

This shows that (i) can be taken to be an instance of XP-coordination. (That (i) and (ii) should be grouped together is supported by the fact that, for unclear reasons, the first *and* cannot be deleted in either, as they note; also see Gleitman 1969, p. 112.)

12. The fact that a clitic can be readily missing from the second conjunct if that conjunct is also missing an auxiliary is arguably a gapping effect.

- (i) *Jean vous aurait parlé et pardonné.*
Jean youDAT would-have spoken and forgiven
'Jean would have spoken to you and forgiven you.'

This agrees with Kayne 1975, sec. 2.5, in taking the deletion of the clitic to be 'parasitic' on the deletion of the auxiliary, but it differs in not taking (i) to bear directly on the question of whether clitic and auxiliary form a constituent. The reason is that gapping is known to be able to delete nonclitic complements along with the verb (see Kuno 1976 for a variety of examples).

13. In a sense that I will be unable to make precise, Benincà and Cinque (1990) note that, at least in Italian, the two verbs can differ in tense.

- (i) *Lo leggo e leggerò sempre con piacere.*
I read and will-read always with pleasure.
'I read it and always will read it with pleasure.'

(27) is more available in Spanish and Portuguese than in French or Italian; see Uriagereka 1988 and in particular Uriagereka's (1988; to appear) idea that Spanish and Portuguese clitics move past IP to a special F^0 .

14. The ungrammaticality of (i) might be related to that of (ii).

- (i) **For John with Bill would be fighting now.*

(ii) **Mary wants very much for John with her tomorrow.*

15. Thinking of Pesetsky 1995, one might claim that the empty head of the small clause must incorporate to the next category up, and that incorporation to a preposition is impossible, for reasons that remain to be elucidated. (An exception is the *with* of *With John sick, the family is in trouble*.) To extend to (47), this would require that *Bill with Paul* have an empty head, in other words, that *with* not be the highest head of that phrase.

The preposition restriction is also found in inalienable possession constructions like (i).

- (i) The dog bit (*into) John on/in the leg.

This raises the possibility that *John on/in the leg* might be a subtype of coordinate constituent.

16. On this notion of (covert) distributor, see Heim, Lasnik, and May 1991.

The first *et* of (5) necessarily acts like a distributor, too; compare Payne's (1985, pp. 19–20) observation (in terms of his [+separate] feature) that the last *to* of (7) in Japanese does not have this property and that this is typical of final coordinate conjunctions. From the perspective of the LCA-based word order theory proposed here, it could be that a necessary condition for inducing an obligatory distributivity effect is that the conjunction in question asymmetrically c-command the other conjunctions within the phrase in question. In French '[et DP [et DP]]' the first *et* does asymmetrically c-command the second, whereas in Japanese '[DP [to DP]] [to [e]]' neither *to* c-commands the other.

17. Perhaps relevant here is the blocking effect of *both* in (i).

- (i) I consider (*both) John to have made a mistake and Bill to have participated in the cover-up.

18. *With* presumably Case-licenses its own complement *Bill* in (55), without assigning a theta-role to it (rather, *John with Bill* receives a theta-role from *friends*, with each conjunct interpreted in parallel fashion; see Munn 1993 for relevant discussion). In this respect, the *with* of coordination recalls Baker's (1988a, p. 300; 1988b) claim, which goes back through work by Marantz (1984, p. 246) to a proposal by Dick Carter, that the instrumental preposition plays no role in theta-assignment, which leads me to the following suggestion, namely, that a sentence like (i) derives from a structure like (ii).

- (i) The boy broke the window with a hammer.

- (ii) ...[the boy [with a hammer]]...

in which the instrument and the subject form a subvariety of coordinate constituent with *with*. This would make it clearer why instrumentals are not theta-dependent on the preposition and would cast new light on why instrumentals can sometimes be superficial subjects, as in (iii).

- (iii) The hammer broke the window.

The significance of the similarity between instrumental *with* and the *with* of coordination was in essence noted by Marantz (1984, pp. 247–248), who did not, however, propose (ii).

19. This is supported by a contrast brought to my attention by Paul Portner (personal communication).

- (i) Mary bought but John didn't buy any books about linguistics.

- (ii) *Mary didn't buy but John did buy any books about linguistics.

Negative polarity *any* can be licensed by a negation in the second, but not in the first, conjunct.

Postal (n.d.) argues that RNR forms a natural class with leftward extractions. If so, then (57) and (i) should involve abstract leftward movement of either the empty object in the first conjunct or the lexical object in the second (at LF) or both.

Chapter 7

1. On the other hand, the theory does not automatically tell us whether to take the head to be *to* or rather to be a V position, as suggested by Larson (1988). If the latter, the question arises whether some language could differ from English and fail to raise that V at all.

The derived structure proposed by Larson for (i) is not compatible with the present theory, since his derived structure involves right-adjunction of a *book*.

- (i) Mary gave John a book.

Rather, '[John a book]' must correspond to a (headed) small clause, with *John* perhaps raising up to its surface position from a lower position that is within the small clause and below a *book*.

The grammaticality of *the gift of a book to Bill*, which led me in Kayne 1981c not to include (1) in the small clause approach to multiple complements, must now be accounted for otherwise; a promising proposal is that of Pesetsky (1995), in terms of how derived nominals are affected by constraints on zero-incorporation. Zero-incorporation in Pesetsky's sense might also play a role in the following contrast:

- (ii) the person who we gave a picture of to the child
(iii) *the person who we gave a picture of a new frame

2. It is to be noted that the LCA by itself does not exclude the possibility that in (3) there is a phrase *John criticized Bill* that is left-adjoined to/in the specifier of the phrase headed by *after*. Although I do not think it is appropriate here, I will suggest that kind of structure in section 9.2 for certain comparatives and resultatives.

3. Gross (1968, p. 136) gives one example with a direct object.

- (i) Jean l'avertit y être allé.
Jean her informed there to-be gone
'Jean informed her that he'd gone there.'

This example also bears on the question of whether and how French infinitives might need Case; see Raposo 1987.

4. Left open is the question of why the two types of infinitive should differ in this way. With respect to LF movement of PRO in (4), recall the claim made in Kayne 1991, p. 679, to the effect that all instances of PRO are governed at LF. (The idea of (LF) movement of PRO was first suggested to me, in the context of that article, by Barbara Bevington.)

It is of note that in Corsican, to judge by observations of Yvia Croce (1979, p. 150), (5) itself is less good than the same sentence with a subjunctive instead of the infinitive, suggesting that in some languages PRO might be limited to subject orientation to a greater extent than in French.

Contrasting with (4) is (i).

- (i) Il me semble avoir mal compris.
it me seems to-have wrong understood
'It seems to me that I (must) have misunderstood.'

Here, where the matrix subject is an expletive, object control is possible, as if the dative object of *sembler* could itself move to subject position at LF.

Why French indicative-like infinitives are incompatible with *de* (on which, see note 34 of chapter 3), as opposed to their Italian counterparts, is unclear.

In both French and Italian (as opposed to Spanish), object control as in (5) requires *de* (with the exception, again with an expletive subject, of (ii)) for reasons that are unclear.

- (ii) Il me faut partir.
it me must-to-leave
'I must leave.'

If raising of PRO (which could take place prior to LF) were blocked by *if* but compatible with *whether* (in the presence of a *wh*-phrase, PRO would (first) move to C⁰; see Borer 1989), one would have an alternative account of the control facts discussed in Kayne 1991, sec. 2. French *si* would act exactly like its English counterpart *if* (and similarly for the other Romance clitic-infinitive languages). In Italian (and the other infinitive-clitic Romance languages), the infinitive would move to a position higher than PRO and license long movement of it, much as in Rizzi's (1982, chap. IV) original analysis of Italian *wh*-movement. (On a link between "free inversion" and infinitive-clitic order, see Kayne 1991, p. 657.) The present paragraph may or may not be compatible with note 16 of chapter 5.

5. As suggested by Cinque (1993a, p. 266). Also see Ordóñez's (1994) proposal that Spanish VOS and German OSV structures share a common scrambling operation. Larson's idea that in (11) the 'IV PPJ' constituent moves leftward past the object DP would be compatible with the LCA if the landing site were a specifier position (of a head situated above the object). Although I will not pursue this possibility for English, a somewhat comparable movement of a verb-initial constituent into a high specifier position has been proposed with notable results for Irish by Duffield (1994).

6. I leave open the question of whether the verb should be taken to originate in Y⁰, as in Larson's work, or whether X⁰ and Y⁰ should be taken to be nonverbal heads, as in Pesetsky 1995.

7. See, for example, Wexler and Culicover 1980, p. 278.

8. I find the following kind of example better than (20):

- (i) ?the woman that they were explaining to the husband of all the intricacies of a divorce settlement

This is unexpected from Larson's V'-reanalysis perspective. From a leftward PP-movement perspective, the improved status of (i) can be related to that of (ii) as compared with (32) below in the text.

- (ii) ?the woman that we think that to the husband of they should explain everything

On the interaction between P-stranding and scrambling in Dutch, see Koster 1987, p. 181. Note further that the deviance of "heavy NP shift" in the English double object construction is now to be reinterpreted as the deviance of scrambling the direct object leftward across the indirect object.

- (iii) *?John has given a present most of the children who wanted one.

We can now see a link between this and the fact that in Dutch comparable scrambling is also deviant—"??" for Zwart (1993, p. 303), for example.

9. Leftward PP-movement of a similar sort has been proposed for Italian by Belletti and Shlonsky (to appear). They also propose a rightward movement analysis for certain Italian sentences that is not compatible with the ban on right-adjunction that I have derived. From my perspective, it should turn out that sentences such as (i) can be attributed to leftward PP-movement, too.

- (i) Maria ha dato a Gianni un libro.
Maria has given to Gianni a book.
(ii) *Maria ne ha dato a Gianni uno.
Maria of-it has given to Gianni one

The fact that (ii) is not possible would then recall the following contrast:

- (iii) ?For his birthday, Mary gave to John a book.

- (iv) *For his birthday, Mary gave to John one.

A *Gianni* in (i) may have raised higher than *to John* has raised in (iii). Correspondingly, *un libro* in (i) may be higher than *a book* in (iii), thereby accounting for the full acceptability of the Italian example. (These differences would be related to the fact that verbs raise higher in Italian than in English; see Belletti 1990.)

10. Contrary to Chomsky (1993), but in the spirit of Johnson (1991) and Koizumi (1993).

On the position of object pronouns in Irish, generally more to the right than expected (see O Siadhail 1989, p. 207), see Duffield 1994.

11. It may now be possible to take the surface position of the adverb in (i) to be due to leftward movement from a postobject position, with implications for head movement.

- (i) John carefully undid the package.

A clear case of leftward adverb movement to other than sentence-initial position is found in French.

- (ii) J'ai mal dû racrocher.
I have wrong must hang-up
'I must have hung up wrong.'

This leftward movement resembles that of French *tout* 'everything' and *rien* 'nothing' discussed in Kayne 1975, chap. 1.

Given the ban on movement of a single-bar-level category (i.e., of a single segment of a two-segment category, recall the end of section 3.1), it follows that the movement of the *to*-phrase in (iii) must strand some head (Y^0) intervening between it and the ECM subject.

(iii) John considers to be intelligent all the students in his class.

(iv) ... considers [Ito be intelligent]_i X⁰ [Iall ...] [Y⁰ [e]_i ...]

Assuming that the ECM subject originates within the *to*-phrase (see note 16 of chapter 5), (iii) contrasts minimally with German (see Frank, Lee, and Rambow 1991)—perhaps because the *to*-phrase in (iii) is governed by V in a way that it is not in German.

12. Williams (1977, p. 130) gives (a sentence like) (27) a “*” and (one like) (26) a “?”.

The idea that these involve extraction from VP (rightward) was proposed by Jayaseelan (1985).

13. There is a point in common here with Hornstein's (1994) proposal for LF movement to Spec,Ag_{FO}.

14. A proposal for particle incorporation can be found in Van Riemsdijk 1978, p. 54. (Syntactic incorporation followed by excorporation of V may be appropriate for the Basque “light verb” constructions discussed by Laka (1993, p. 153).)

Johnson's (1991, p. 600) account of particle constructions in English is also compatible with the present theory, if his account is modified to start from [_v P + V] prior to excorporation of V rather than from [_v V + P].

The line of research started by Guéron (1987), which adopts the small clause approach to particle constructions but takes *the book* in (33) to be complement of the particle, also seems compatible. For recent development of that approach (which may not require excorporation—an advantage, given (the text to) note 6 of chapter 3) and careful discussion of the complexities of particle constructions with two DPs, see den Dikken 1992.

We will see in section 9.1 that sentences like (i) indicate that *a book* must in fact originate below the surface position of the particle.

(i) John picked a book up that had fallen.

15. We might then expect Italian to allow VSO sentences, and in fact (i) is grammatical, albeit with a special intonation (roughly speaking, rising on the subject and falling on the object) that led Antinucci and Cinque (1977) to give it the name *emarginazione*.

(i) Ha scritto Gianni questo articolo.
has written Gianni this article
'Gianni wrote this article.'

In the spirit of section 7.3, I take this special intonation to be compatible with the claim that *questo articolo* is asymmetrically c-commanded by *Gianni*.
On VOS sentences in Spanish, see Ordóñez 1994.

16. The idea that in the core cases of stylistic inversion like (36) the subject can be taken to be in a left-hand position goes back to Déprez 1988. On the other hand,

Déprez takes those cases of stylistic inversion that display ‘... verb-complement-subject’ order to involve right-adjunction. I will take them instead to be instances of scrambling of the complement across a heavy subject, with the subject in a left-hand specifier position.

The impossibility of ‘... verb-subject-complement’ order when the complement is a direct object remains to be understood. There may be a link with a comparable restriction on English quotative inversion (see Branigan and Collins 1993) and/or with a similar restriction on the English presentational *there*-construction.

The mixed possibilities of ‘... verb-subject-complement’ order when the complement is a PP cannot be interpreted as in Kayne 1986, app. II, since that proposal (which left open the question of subjunctive contexts) depended on right-adjunction. Similarly, the restrictions discussed in Kayne 1981a, app., need to be rethought, perhaps in terms of LF movement of the postverbal subject.

17. A similar suggestion was made by Szabolcsi (to appear) for *Where did he go, do you think?* in terms of clausal pied-piping.

18. Unless (41) is an instance of movement, stranding the auxiliary, as in what is called VP-preposing, with the difference that in (41) the input structure would be less familiar.

(i) John is he is real smart

The doubling of the auxiliary would recall Chomsky's (1993, pp. 34ff.) proposal to interpret movement as involving copying. The relation between *John* and *he* might be assimilable to that of doubling, as discussed below.

19. This type of reduction is probably akin to that of (i).

(i) Mary's smart, but not John.

20. It may be that the construction discussed by Ronat (1982, 1984) should be interpreted as the French (near) equivalent of (47).

21. The fact that (52) is not possible with *Marie* substituted for *elle* (intonation kept constant) might be due to a higher position for the latter, if Koopman (1993a) is correct.

22. Italian differs here from French and Spanish, for reasons that remain to be discovered.

23. This account of (58) means that one no longer has to grapple with the problems caused by trying to extend Subadjacency to rightward movements, nor is there any need to invoke a highly specific constraint such as Ross's (1967) Right Roof Constraint. This point will come up again with respect to “extrapositions” in chapter 9. See also the discussion of (14) of this chapter.

24. This is in part similar to proposals made by Iatridou (1991), who however agrees with Cinque in generating the left-dislocated phrase in its left-hand position in simple sentences.

Cinque demonstrates conclusively that CLLD is not a subcase of *wh*-movement. From the text perspective, *wh*-movement and CLLD differ in that the latter is not an instance of an operator-variable configuration at LF. Whether this will suffice to account for all the differences Cinque notes I leave an open question.

Cinque's (1990, p. 72) proposal for accounting for the obligatoriness of the clitic in the direct object subtype of CLLD seems orthogonal to the question of whether the empty category in complement position is base-generated or produced by (non-*wh*-)movement.

The fact that that clitic is obligatory in CLLD, but not in right-dislocation (cf. (47)), follows from the present theory as a result of the fact that the latter involves no movement of the lexical direct object.

Cinque (1990, pp. 57ff.) distinguishes CLLD from left-dislocation (LD). LD involves an initial DP that should be base-generated in a very high specifier position. The fact that there is no counterpart to LD with a final DP (i.e., no construction with the properties of LD holding of a final DP) follows from the absence of right-hand specifier or adjoined positions, under the present theory.

25. Overt CLLD allows more than one such landing site; see Cinque 1990, p. 58. The same is true of right-dislocation, that is, of covert CLLD.

Cinque (p. 59) notes that the resumptive element in Italian CLLD must be a pronominal clitic and cannot be a pronominal nonclitic. The same appears to be true of covert CLLD.

In French, as opposed to Italian, CLLD of a dative generally dispenses with the preposition, which is required in right-dislocation (in both languages).

(i) Ton ami, je lui parle souvent.
your friend I him_{DP} speak often

(ii) Je lui parle souvent, *(à) ton ami.

I assume that (i) can be a true case of CLLD (vs. what Cinque (p. 57) calls LD; also see Cinque 1977, p. 408n, and Benerbà 1988b, p. 133), as suggested by the possibility of *ton ami* occurring noninitially (see Hirschbühler 1975, (31b)). The contrast between French and Italian concerning (i) is probably related to the fact that French dative quantifiers can do without *à* (see Kayne 1975, sec. 2.14)—a possibility that appears to be absent from Italian. (The positioning of those prepositionless dative quantifiers in French recalls that of Italian *loro* 'them', which Cardinaletti (1991) demonstrates to be outside of VP.)

26. Clitic doubling of the nondislocated type may involve LF movement of a type distinct from CLLD, for example, if the doubled phrase in (63) is negative (and if negative phrases move at LF; see Haegeman and Zanuttini 1991 and Longobardi 1992; see Dobrovie-Sorin 1990, p. 390).

LF movement of one or the other type may underlie the restrictions on intonational phrasing discussed by Hirst (1993).

27. Note that French allows *Jean la voit elle* 'Jean her sees her' without dislocation intonation, much as in (52). Similarly, Spanish allows *Juan la ve a ella*. The preceding French example differs slightly from its dative counterpart (see Kayne 1975, chap. 2, n. 41); this might indicate some link with the construction studied by Ronat (1979), *Elle me voit elle* 'she me sees she (= *She sees me*)'.

Note further that from the present perspective, the problem with (66) is not a Case problem, and that in (67) *Marie* presumably is Case-licensed as a non-doubled complement is.

28. On the other hand, no Romance language seems to allow locative clitics to evade (65). This is especially striking for languages like Trentino, which, as Cinque (1990) notes, has nondislocated clitic doubling with dative clitics but *not* with locative clitics, even though locative and (third-person) dative clitics are homonymous.

29. In some varieties of Spanish (69) is grammatical with direct objects that take *a*. Given the second paragraph of note 27, the role of *a* in licensing (69) cannot readily be taken to be a Case role with respect to *Maria*.

An alternative view is that *a* in some way licenses the (partial) dativeization of the apparently accusative clitic, so that (69) is assimilated to dative clitic doubling.

Chapter 8

1. See Bitner and Hale 1994 and Holmberg and Platzack, to appear, on the licensing of nominative by C⁰.

2. On the relation of which to *one*, see Perlmutter 1970.

3. This recalls the fact that Hungarian focus and interrogative phrases move to a pre-V position that is below C⁰.

4. Some speakers do not find this unacceptable; see Smith 1969, p. 254n. They presumably have the possibility of either an implicit relative (see below on the ameliorating effect of relatives) or use of a lower *the* (see the discussion of (35) of chapter 9).

5. This formulation, which implies that 's is not a D⁰, does not by itself answer the question of why there is no DP recursion. Relevant here is the question of whether and to what extent there is CP recursion, given Szabolcsi's claim that C⁰ and D⁰ are parallel.

6. Also see Brame 1976, p. 125, and Schachter 1973. The use of DP and CP in the text version of the raising analysis draws on developments subsequent to the seventies.

I agree with Schachter's point that clefts are parallel to relatives. In the present framework the analysis of clefts should be as follows. Like relatives, clefts involve movement to Spec,CP. Unlike the CP of relatives, the CP of clefts is not the complement of D⁰, but the complement of *be*.

(i) It is CP

(ii) It is [_{CP} linguistics]_i [that [we are studying] _i _j _{CP} ...

(It is not clear whether clefts with *wh*-words are like (ii) (with a generalization of the analysis of *wh*-words given below) or instead a subvariety of right-dislocation.) Savio (1991) proposes that what looks like a right-hand (postverbal) focus position in Tamil (which would be impossible under the present theory) is actually a position to the left of an invisible copula in a cleft construction (which is compatible with the present theory).

Tuller (1992) argues that postverbal focus positions in Chadic are actually left-adjunctions to VP (with V raised to I). On the other hand, her (p. 317) proposal that in some Chadic languages nonfocused direct objects right-adjoin to V must

be reinterpreted in terms of a higher adjunction site (specifier position) for those direct objects than for focused phrases.

7. This [_{CP} D° CP] structure, though without movement to Spec,CP, may find additional support in cases of sentential embedding with an initial determiner, as in the Italian definite article + infinitive phrase construction.

- (i) *l'aver lui affermato ...*
the-to-have he affirmed

See Rizzi 1982, p. 85.

8. See Baker 1988a, pp. 378, 453, on noun incorporation from within the subject of an ECM construction; in fact, the structural relation between *the* and NP in (10) is reminiscent of an ECM construction.

The Romanian example (11) is from Dobrovie-Sorin 1990, on the N-to-D raising, see specifically Dobrovie-Sorin 1987 and Cornilescu 1992.

9. Though there might be parallel N-to-D movement in LF (see Longobardi, to appear), as a way, for example, to check Case (that is morphologically on N) in languages like German or Hungarian.

10. Some indirect objects can have an empty preposition.

- (i) *la persona cui ho dato un libro*
the person who I-have given a book

For discussion of French/Italian *lequel/il quale* 'the which' and various complexities, see Kayne 1976 and Cinque 1982.

11. Pollock (1992, p. 142) gives an example like (17) three question marks.

12. See Emonds 1979, p. 221n. As Giuliana Giusti (personal communication) suggests, *who* could be taken to be a form of *which* that appears under spec-head agreement with a [+human] NP.

- (i) [*man*, [*who* [*el*]]]

Note that the Romanian counterpart of (21) will now involve N-to-D raising out of the specifier of the specifier of the sister of D. See note 8, recalling in particular that specifiers are necessarily adjoined phrases, given the LCA.

13. This does not hold for what are often called "headless" relatives.

- (i) We gave him what little money we had.
(ii) We'll take whichever seat you offer us.

On the text analysis, these instead differ in that the NP sister of the *wh*-determiner has not raised. (The terms *headed* and *headless* are inappropriate in any event, since what has standardly been referred to by the term *head of a relative* is really a phrase (NP), from the text perspective.) It seems plausible to claim that, at least in (ii), raising has taken place—but raising of *which*, starting from a structure in which *ever* is a kind of determiner (regarding interpretation, see Larson 1987, p. 257).

- (iii) *ever* [which seat [you offer us [*el*]]]

Left-adjunction of *which* to *ever* here would then recall the N-to-D raising in Romanian mentioned earlier.

Note the following contrast:

- (iv) However many people one speaks to, it's never enough.

- (v) *?To however many people one speaks, it's never enough.

If acceptable to some speakers, (v) is comparable to the Latin and French examples discussed in the last paragraph of note 3 of chapter 6.

14. See Kayne 1975, sec. 5.3, and Belletti 1982. Belletti's (p. 102) example

- (i) ... hanno criticato l'uno le idee dell'altro.
they-have criticized the one the ideas-of-the other

could indicate that the specifier of the definite article is unavailable in Italian only when the head N is reciprocal *altro*; or perhaps in this kind of example *l'uno* can be in the specifier of a functional head external to the *le*-phrase.

15. The fact that in Russian the *wh*-word shows the Case determined by the lower predicate and the "head noun" the Case of the upper can be accounted for as follows. In *which picture* Case is assigned/licensed within the embedded sentence to *which*. In Russian, if *picture* remains as complement to *which* (in a nonrelative structure), an additional mechanism copies/licenses the same Case on *picture*. If *picture* moves to Spec,*which*, then it is Case-licensed in Spec,CP via the upper D° instead.

The structure in (29) but without the initial D° (see (i) of note 6) may be appropriate for the German counterpart to clitic left-dislocation (see section 7.3).

- (i) Den Mann, den haben wir nicht gesehen.
the man him have we not seen

Since '[den Mann, [den [*el*]]]' would be a single constituent, (i) would then no longer be an exception to the verb-second requirement of German.

16. The approach taken in Kayne 1983b, sec. 3.3, depended on a characterization of *wh*-phrases that is not in the spirit of section 3.5 above. LF movement of *who* in (33) might be a viable alternative (see Safr 1986, pp. 680–681), depending on the exact status of island violations in LF movement constructions.

From the text perspective, (i) is a movement-based parasitic gap construction.

- (i) ?The man whose wife's love for whom knows no bounds

The following seems to be less deviant than might be expected (cf. a partially similar example in Safr 1986, n. 18):

- (ii) ??This is the book that I would like very much for which to be sent to me.

It is a kind of relative *wh*-in-situ, with *book* moving from the complement of *which* to Spec,CP (perhaps via Spec,*which*) without the *which*-phrase itself having moved to Spec,CP. That movement of *book* is involved is supported by the stronger deviance of (iii).

- (iii) *This is the book that I insist that which should be sent to me.

17. In the only alternative configurationally permitted by the LCA, the relative clause would be a complement of N°.

18. An alternative might be to say that LF movement of *book* to *the* (see note 9) is somehow blocked by *that* when *book* is in the specifier of another phrase within Spec,CP. This formulation would not extend to interrogatives, but it would correctly distinguish relatives from concessives in standard French.

(i) **la fille à qui que tu parles*
the girl to who that you speak

(ii) *A qui que tu parles,...*
to who that you speak
'No matter who you speak to, ...'

(The concessive in (ii) might involve left-adjunction of *à qui* to *que* as with English *ever* in note 13, with French being more like Latin than English is.)

Obligatory LF N-to-D movement might provide the means to exclude (iii).

(iii) *Chair on which were you sitting?

The idea would be that the moved NP complement of *which* must be licensed in Spec,PP by a governing D⁰.

Conversely, the relativized NP that comes to be governed by D⁰ can bind an empty category within Spec,CP only if that empty category is governed by a *wh*-word.

(iv) the chair, on which [e]_i he was sitting

(v) *the chair on [e]_i (that) he was sitting

19. The ungrammaticality of (36) was noted by Jespersen (1974, sec. 4.52).

20. However, I find both (36) and (35) improved if the subject of the relative clause introduced by the null C⁰ is pronominal.

(i) I just read the book about your ancestors you published last year.

(ii) ?I just read the book that's about your ancestors you gave me last year.

This suggests that a pronominal subject in English can cliticize to a null C⁰ and render it (partly) immune to the text effect.

This recalls the phenomenon described by Giacomo-Marcellesi (1978, p. 212) for (mostly southern) Corsican, whereby a missing complementizer is licensed by an initial subject pronoun (also see Culiofi 1981).

In addition, Cinque (1981, p. 298n.) gives the following examples:

(iii) Non sapevo tu fossi malato.
NEG I-knew you_{nom} were sick

(iv) *?Non sapevo Giorgio fosse malato.

This suggests that a cliticized subject pronoun can contribute to the licensing of subjunctive null complementizers in Italian (but not in Spanish, see Torrego 1983, n. 2).

For me this effect is also present with relative clause "extraposition" (on which, see section 9.1).

(v) ?A book just came out I've been meaning to read.

(vi) *?A book just came out my wife's been meaning to read.

Similarly:

(vii) ?The fact it's out now is what's important.

(viii) *?The fact your book's out now is what's important.

On the other hand, there is no such effect with sentential subjects, indicating that the unification of all these English cases envisaged in Kayne 1981a, n. 23, and Stowell 1981 was not entirely correct.

(ix) *(That) it's out now is wonderful.

21. In (i) the italicized phrase in the specifier of the null complementizer has a complement, but that complement (*book that's about your ancestors*) has moved to specifier position (of *which*), thereby evading the restriction.

(i) I just read the book *that's about your ancestors* which your son gave me last year.

22. On the lack of relative pronouns in N-final cases, see Downing 1978, pp. 392–394, and Keenan 1985, p. 149. On the lack of relative and sentential complementizer identity in N-final cases, see Keenan 1985, p. 160.

23. If a relative CP raises to Spec,DP and NP raises within CP to Spec,CP, the result is the Yoruba type of relative illustrated by Keenan (1985, p. 145). If N-to-D raising is general in relatives (see note 18), then in Yoruba it must take place under "reconstruction" (see Chomsky 1993).

24. Amharic has an element *ya*, which Gragg calls a relative particle, that precedes the verb within the relative clause. The text proposal implies that *ya* cannot be a C⁰. It may rather be an I⁰ past which at least the complements of V have raised, perhaps in a way similar to what transpires in Dutch or German; see section 5.4.

Similarly, in languages where a relative particle follows the relative proper and precedes N (or D), that relative particle cannot be C⁰, but only some kind of I⁰ (whose complement has raised to its specifier).

Note further that in (41) IP contains the trace resulting from the movement of NP to Spec,CP, and that subsequent to the movement of IP to Spec,DP that NP trace is not c-commanded by its antecedent. For interesting discussion of how to distinguish legitimate from illegitimate cases of traces being raised past their antecedents, see Muller 1994. One legitimate case is that of German "remnant topicalization," as studied by Den Besten and Webelhuth (1990).

Concerning IP-movement to Spec,DP, minimality requirements could be met as in Chomsky 1993 by abstract incorporation of C⁰ to D⁰ (see note 16 of chapter 5), though overt incorporation of (the equivalent of) *that* to D⁰ is evidently prohibited, as is incorporation of *that* to other categories, for unclear reasons.

25. NP could not be stranded in Spec,CP by leftward movement of the constituent [C⁰ IP], since that constituent corresponds to just the lower segment of the category CP, and isolated segments (i.e., single-bar categories in more usual X-bar terms) cannot be moved (recall the last two paragraphs of section 3.1).

26. The relative unity of UG relativization appears to be supported by de Rijk's (1972, p. 121) observation in Basque N-final relatives of matching effects of the

sort often found in N-initial relatives; for some recent discussion of matching effects in the latter, see Larson 1987.

Note on the other hand, that what moves to the relative Spec,CP is not always NP (see (29)). (An indefinite) DP is also what moves to Spec,CP in (7), given the analysis of possessives proposed in section 8.1. Impossible would be a definite DP in the relative Spec,CP under *the*; see Williamson 1987, p. 175.

27. In some languages (e.g., Basque; de Rijk 1972) N in (42) can raise and left-adjoin to D⁰.

28. On I-to-C movement, see Pesetsky 1982. Recall, in this regard, the argument given in section 4.6 to the effect that Romance clitics adjoin not to finite V but to a higher abstract head. Thus, for the I-to-C movement in the text, I could be this abstract head (stranding the clitic, if one is present). (The IP that raises in (42) is the category sister to C⁰.)

29. There remains the question of why no language seems to have the structure *IP-the picture-which, which would result from moving IP in (43) to Spec,DP and leaving the rest untouched. It may be that there is a link to (i) (vs. *I don't know who to buy pictures of*).

(i) *Pictures of I don't know who to buy.

For example, it may be that from Chomsky's (1993) trace-as-copy perspective, the trace of *who* following *of* is uninterpretable, and similarly for the trace within the relative IP of *picture-which* (as opposed to the non-*wh* trace of *picture* alone in (42), which would be interpretable in situ).

30. I leave open the question of what forces NP-movement to Spec,CP to be overt, rather than LF, movement—for example, the question of what rules out the (attempted) relative in (i), with no overt movement to Spec,CP at all (and similarly for free relatives).

(i) *the [_{CP}(that) John bought (which) pictures

.The relation between (49) and Condition C violations such as **He_i thinks John_i is smart* needs to be elucidated.

Note that nothing prevents the existence in some language of the counterpart of (47) with (the equivalent of) *which picture* in place of *picture*; see the Barbara facts discussed by Schachter (1973, p. 35).

31. For example, if the mechanism proposed by Rizzi (1990b, pp. 66ff.) for allowing *the book that was sent to me* depended on Tense, which is lacking in (57).

A second possibility would be to invoke the general (but not very well understood) impossibility of having *that* with small clauses and infinitives (see Kayne 1991, n. 75); this would require distinguishing *that* from the French *de*, to be discussed below.

32. Spec,CP is thus assimilated in (57) to an A-position, a possibility dependent on the trace of *book* not being in a Case-marked position itself. This is presumably what is behind the lack of an ECP violation in (57), as opposed to the impossibility of *the book was sent to me* as a relative.

33. For recent discussion of PRO, see Chomsky and Lasnik 1993 and Kayne 1991.

34. In this pseudopassive example the perhaps abstractly incorporated preposition (see Baker 1988a, p. 260) must not count as part of an overt complement.

35. Contrary to the proposals of Bresnan (1982, p. 53) and others. Stronger evidence for adjectivalization comes from *unreferred to*, *unslept in*; whether this notion of adjectivalization is ultimately syntactic, or lexical, and in what sense, remains to be clarified.

36. Consider Cinque's (1993b) observation that stress in Italian can license a bare adjective in a position following a noun complement.

(i) la loro aggressione all'Albania. BRUTALE
the their aggression against Albania brutal

I take this example to have essentially the representation given in the text for (57), with *aggressione all'Albania* in place of *book* and *brutale* in place of *sent to me*. (I leave open the question of where *loro* is attached.)

37. This CP can also occupy a lower position relative to *the*.

(i) the other recently arrived letter

This bears on the question of N-to-D incorporation that was relevant in the discussion of (58) and (60).

38. The idea of deriving adjectives from relatives is not new; see, for example, Smith 1969.

39. Recall that the covert equivalent of such raising was proposed earlier for English in the discussion of (58) and (60); also see notes 8 and 9.

40. Most of Romance is like French, but see Bernstein 1993 for a finer-grained analysis of N-raising based on Walloon.

41. On *-ci* and on *celui*, see Gross 1977, pp. 128ff., and on possessives, see Gragg's (1972, p. 160) point that the Amharic genitive construction is transparently related to relative clauses.

42. An adjective adjacent to *voiture* would presumably be part of the phrase moved from within IP to Spec,CP, except perhaps for the kind of elements mentioned in note 37.

Cinque (1993b) notes the contrast in Italian between (i) and (ii) (where *di Gianni* goes with *sostenitori*, not with *causa*).

(i) i sostenitori di Gianni fedeli alla causa
the supporters of Gianni faithful to-the cause

(ii) *i sostenitori fedeli alla causa di Gianni

In (i) *fedeli alla causa* is a reduced relative, with *sostenitori di Gianni* in its Spec,CP, from the text perspective. In (ii), on the other hand, *sostenitori fedeli alla causa* is in Spec,CP, in the sense of (79). Adapting Cinque's proposal for (ii), I can interpret it as violating the restriction against complex specifiers discussed above (see (62)), with *di/de* acting like empty C⁰, rather than like *that* (for reasons that are unclear).

Note that, compared with (56), both (i) and the acceptable *the book of yours given to me by your son last year* (cf. also the only mildly deviant (36)) indicate that the core notion of “complex specifier” may involve “containing a complement with a nonnull IP.”

43. There is another possessive construction in French (that is nonstandard with a definite article).

- (i) *la voiture à Jean*
the car to Jean

I do not think that this *à* has the same syntactic status as *de*, in part for reasons discussed in Kayne 1975, sec. 2.20, in part because in Walloon both prepositions can be used together (see Remacle 1952, p. 342).

- (ii) *C'è d-à mine.*
it is of to mine

and in part because of the contrast between (iii) and (iv).

- (iii) *la conférence d'hier*
the lecture of yesterday

- (iv) **la conférence à hier*

44. The Case-licensing strategy used for *Jean* in (81), based on the presence of *de* in D/P⁰, is evidently not workable in (82), either because of a problem with what would then have to be an expletive subject of BE, or because Case licensing via *de* requires the sister constituent of *Jean* to be empty. It may also be that the sister of IP cannot be interpreted in Spec, BE, an A-position. On the need for an indefinite article in (83), see perhaps Pollock's (1983) discussion of predicate nominals.

45. The fact that the IP sister to *de* is never finite recalls the comparable property of English *for*. This leads one to wonder about the claims made in Kayne 1991, pp. 667ff., concerning the status of the *de* that precedes infinitivals; see note 19 of chapter 4.

46. As a first approximation, this could be stated by saying that possessive I⁰ must be *s*'s (and cannot be abstract) when the possessor is human (apart from the relational cases alluded to).

An exception is when the possessor is heavy.

- (i) (?)the car of the man I was telling you about

It seems that abstract possessive I⁰ can be licensed in this context on the basis of its specifier being complex, in the sense of note 42.

Notice that (86) is excluded no matter what the initial determiner is.

- (ii) **a car of John*

This supports the (implicit) text claim that the exclusion of (86) is distinct from that of (103), given the well-formedness of *a car of John's*.

47. Although the text formulation does not imply it, a more careful study would probably lead to the conclusion that *that Paris* has a structure like (i),

- (i) that [[THERE]_j [C/D/P⁰ [_{IP} Paris I⁰ [_j]]] ...

where THERE is the abstract counterpart of the *there* found in the nonstandard English (ii).

- (ii) that there book

See (the text to) note 41. A possible alternative to (i), modeled on (57), would be (iii).

- (iii) that [[Paris]_j [C/D/P⁰ [_{IP} [_j]]] I⁰ THERE ...

This structure may be appropriate for another kind of example mentioned by Vergnaud (1974), namely, *the Mary with blue eyes*.

- (iv) the [[Mary]_j [C/D/P⁰ [_{IP} [_j]]] I⁰ [with blue eyes] ...

The reason for the ungrammaticality of (v) remains to be discovered.

- (v) **Mary is with blue eyes.*

48. Like *ones* is Irish *té*, to judge by McCloskey 1979, p. 39.

49. I am assuming here that for thematic/interpretive reasons *from New Jersey* cannot be a complement of *students*. Consequently, (97) has no possible analysis as a double complement structure. A valid example of a double complement structure with a N⁰ head would be (i).

- (i) the theft of the money from the students

The two complements must form a small clause; this is different from the conclusion reached in Kayne 1981c, but consonant with Pesetsky 1995; also see section 7.1. (Each complement in (i) is within the minimal projection of *theft*, whereas *from New Jersey* in (99) is not within the minimal projection of *ones*.)

50. As seen in **the John's car*, in any event. The nonstandard (i) might reflect the licensing of covert *the* by the *'s* heading the specifier of the CP complement of that covert *the*.

- (i) ?John's car that I was telling you about

51. Taking *de Jean/of John's* to be complements of *voiture/car* is not an option made available by UG; this is presumably related to the fact that an agent of V can be expressed as its subject, but not as its complement.

The analysis that I have proposed for French *la voiture de Jean* has left open the question of the apparent extractability of *de Jean*. For relevant discussion, see Cinque 1982, Giorgi and Longobardi 1991, and Pollock 1992.

For interesting restrictions on this extractability (in the case of French clitic *en* 'of it/them'), see Kupferman 1991, pp. 54–55.

52. The determiner and intonation aside, this construction recalls constructions in Chinese (see Li and Thompson 1981, p. 118) and Tagalog (see Schachter and Oanes 1972, p. 122), for which a comparable analysis should be considered.

On the French construction, see Kayne 1975, chap. 2, n. 55, Vinet 1977, and Milner 1978, p. 164.

53. That this construction could receive an analysis parallel to the one proposed in Kayne 1993 for English *a sweater of John's* and pursued here in sections 8.1 and 8.5 was suggested to me by Juan Uriagereka (personal communication; he also

suggested an extension to *partitives*, which I will leave unexplored). The construction in (107) has been studied for French by Milner (1978), Coursaget-Colmerauer (1975, pp. 21ff.), and Ruwet (1982).

54. *D'autre* here and in other ways acts differently from other *de*-AP phrases, as discussed by Huot (1981, pp. 276ff.).

55. See Huot's (1981, p. 261) claim that the *de* of *de*-AP is a complementizer.

The idea that *de* in (111) has *quelqu'un* within its maximal projection (and similarly for (112)/(113)) is proposed by Kupferman (to appear).

56. I take *D°* here to be empty/indefinite.

57. This recalls Rizzi 1990b, assuming that Relativized Minimality can be sensitive to category distinctions: A-movement of NP/AP across an intervening NP/AP in an A-position is blocked. But comparable movement to an \bar{A} -position is allowed, and movement of NP to an A-position (nonoperator position) across an A-position DP is allowed. Left unaccounted for is why *de* matters, as it seems to, comparing the focalization in (105) with the absence of such an effect in (72).

Kupferman's (1991, p. 57) observation that (i) is impossible suggests that the \bar{A} -movement in question is finely sensitive to category and cannot move a nominal category across another nominal category (nor, presumably, adjectival across adjectival).

(i) **quelqu'un de médecin*
someone of doctor

58. Unanswered here is why focal stress is needed in this case and not in the case of ordinary finite relatives with complementizer *que*. Perhaps there is some link to the fact about stress mentioned above concerning (66), and/or *que* has some licensing feature that *de* cannot have.

59. Note that the trace in question is the trace of *quel homme* within the DP *quel homme d'intelligent*. The trace within VP of the phrase *quel homme d'intelligent* is presumably properly licensed as a variable, by virtue of a special property of such *wh*-phrases when they are in Spec,CP. Further work is called for here.

60. I leave open whether (124) and (121) (without the clitic) can be excluded in the manner of note 57—and likewise, whether Cinque's binding theory approach could be generalized to exclude (114) and (119). Of potential importance also is Chomsky 1993.

61. Azoulay-Vicente (1985, pp. 29, 237) also gives examples showing that the AP following *de* cannot be complex in certain kinds of cases. Under the text analysis, where AP is in Spec,IP, it might be possible to link this to the restrictions on complex specifiers mentioned earlier; see (36).

Similarly, perhaps, for the fact that the NP in Spec,D/PP (i.e., the NP preceding *de*) can itself not contain *de*-AP or a relative clause; see Huot 1981, pp. 277–278.

62. Moro's analysis is compatible with the present theory, whereas that of Longobardi (1985) would not be, since in his analysis the postcopula phrase in (128) is higher than and yet to the right of VP. (A nonmovement analysis of the sort suggested by Ruwet (1982, chap. 6) would also be compatible.)

Moro's analysis raises a question about the formulation of note 57 that I will not pursue.

63. I agree here with Sañr (1986, p. 665) on the general point that the two do not differ overtly, although the particular structure he assumes is not compatible with the present LCA-based theory.

64. Also see Keenan's (1985, p. 169) more general point that overall the differences between restrictives and nonrestrictives are small.

65. Prenominal adjectives can have the structure [D^0 [_{CP} AP [C^0 [_{NP} FP]]], where AP has been moved to Spec,CP from within FP. In the nonrestrictive case AP will move up to Spec,DP at LF.

The commonality of nonrestrictive relatives and nonrestrictive adjectives is reinforced by the fact that both are incompatible with *the only*: that is, *the only industrious Greeks* cannot be nonrestrictive and (i) is not possible.

(i) **the only Greeks, who are industrious*

66. Left open is the question of why, in English, French, and Italian, the intonation break precedes, rather than follows, the relative pronoun or complementizer.

67. The fact that IP-movement in Japanese can leave the relative to the right of an overt determiner/demonstrative implies that there must be at least two levels of D-like projection above CP.

Recall that, at least in the case where relativization is limited to subjects, there exists the possibility of moving a constituent smaller than IP to Spec,CP, as in (61).

68. Whether *these* originates in the embedded position with *pictures of himself* or instead is the upper *D°* whose sister is CP is a separate question that I will take up briefly in section 9.1.

Valentina Bianchi (personal communication) observes that counterparts of (134) are also possible in Italian. For example:

(i) *Quella descrizione di se stesso, che Gianni ha letto nel rapporto della polizia, è molto precisa.*
that description of himself that Gianni has read in-the report of-the police is very precise

Given (iii), there is a certain tension between Chomsky's reconstruction proposal and his (p. 21) discussion of the *easy to please*-construction.

(iii) Pictures of himself are hard for John to criticize.

69. It is unclear why (138) is less sharp with *lequel* 'the which'; see Kayne 1976, p. 270. For additional complexities in Italian, see Cinque 1978, 1982. Also unclear is why English nonrestrictives (unlike those of French and Italian) are not good with just a complementizer.

Cinque (1982, pp. 252, 260) takes the position that nonrestrictives can have the same structure as restrictives (a position with which I have agreed) but goes on to suggest that nonrestrictives can enter into a second, parenthetical structure (a position with which I have not agreed). Perhaps his arguments for a parenthetical structure can be reinterpreted in the spirit of the last paragraph of note 71. (Also

perhaps relevant is whether IP in nonrestrictives can move farther leftward in LF, out of Spec,DP.)

70. Italian *cui* is not possible in free relatives, presumably for the same reason that it is not possible in interrogatives, unlike French *qui*. Thinking of the suggestion by Giuliana Giusti mentioned in note 12, it may be that *cui* requires specification, whereas *qui*, like English *who*, is not so limited.

The very fact that *cui* is possible in nonrestrictives now argues that nonrestrictives are parallel to restrictives. See Nicolas Ruwet's comparable point concerning (138) noted by Emonds (1979, p. 230n).

Emends (p. 228) makes the interesting observation that English does not license a postnominal adjective in the way that a complement does. This might be so because the relevant licensing takes place at LF, at a point after raising of the relative IP.

71. This would not be true in strongly head-final languages. The text analysis may therefore lead to an account of Emonds's (1979, p. 217n.) observation that Japanese allows recursion of nonrestrictives. This question needs to be pursued further.

(i). Emonds further notes that Japanese lacks sentence-initial

(i) John arrived late, which was unfortunate.

only pronominal relatives. Perhaps *John arrived late* in (1) is in Spec,*which*, so that the existence of (1) depends on the presence of a relative pronoun (or partially comparable element, like French *ce*; see Pollcock 1992), which is not possible in pronominal relative structures, as discussed in section 8.3; also see (41) of chapter 7 and (43) and (54) of chapter 9.

72. Safir (1986, p. 673n.) mentions examples from a talk by Peter Sells that are

Safir (p. 672) also mentions counterexamples to the apparent generalization exceptional with respect to (14f), for instance, that the pronoun *she* in (15) is exceptional with respect to (14f), for instance, that the pronoun *she* in (15) is exceptional with respect to (14f), for instance, that the pronoun *she* in (15) is exceptional with respect to (14f).

Safir's (p. 673) observation that a nonrestrictive may not contain a parasitic gap bound from outside is not at present accounted for under my proposal. (One would like to know what the facts are concerning parasitic gaps and nonrestrictives in languages with prenominal relatives.)

tives in languages with prenominal demonstratives (Jackendoff 1977, p. 176) observes that the licensing of *any* cannot cross into a nonrestrictive. However, definite restrictives act similarly (see Fiengo and Higginbotham 1981; Fiengo 1987; May 1985, p. 145).

(c) *I didn't see the man who had had any drinks

(1) ...for the doesn't like the article that anybody mentioned

(ii)

73 Also see the discussion of (i) in Kayne 1985, p. 114

(ii) *They're trying to make advantage out to have been taken of them.

The reason for this property of idiom chunks remains to be seen. McCloskey (1979, p. 39) takes the existence of idiom chunk relatives with resumptive pronouns to constitute a problem for the raising/promotion analysis. Alternatively, in the spirit of section 7.3, such relatives could be taken to indicate that (in some languages) resumptive pronoun relatives result from the usual raising, the input being a clitic-doubling structure.

The present theory leads very definitely to the conclusion that resumptive pronouns must be of the usual form, 'D⁰ CP', with the "head" of the relative noun relatives must be of the usual form, 'D⁰ CP'. The ICA itself does not determine whether Spec,CP must be filled by "base generation." If movement is systematic, it can be filled by "base generation."

[illegible]

It is not c
a restrictive.

(ii) this book, which masterpiece I have read twice,...

Perhaps there is some
Keenan 1985, p. 152.

Chapter 9

1. See Balin 1987, p. 585, and references cited there. Balin's arguments for rightward movement based on antecedent-contained deletion are criticized by Larson and May (1990).

2. A base-generation approach of this sort is advocated by Rochemont and Culicover (1990) and for German by Wiltsecho (1993). Also see Lasnik and Saito 1992, 104. Harder (1993) argues against right-adjunction, as I do, yet for base-generation, as I do not.

3. Note that base generation (see note 2) would amount to treating them as free/headless relatives, making it difficult to understand why they resemble normal headed relatives and not free relatives, in a number of cases where headed and free relatives diverge.

For example, in English stranded relatives are more acceptable than non-stranded relatives, as illustrated in (1) and (2). Contrast (3) with (1), which is unacceptable, and (4) with (2), which is acceptable.

(i) John ate what/*that Bill cooked.

In French stranded relatives are like nominal headed relative pronoun (see (15) and (138) of chapter 8).

(11) *Quelqu'un est entré qui je connais bien

(ii) **Queiqua un est entré* 'someone is entered who I know well' (139) of chapter 8

Yet direct object *qui* is possible in free relatives, see (107) and in stranded relative clauses, see (108).

- (iii) Ci sono molte persone qui di cui non ci possiamo fidare.
there are many people here of whom NEG us we-can trust

But *cui* is impossible in free relatives.

- (iv) *Cui non mangia non ingrassa.
who NEG eats NEG gets-fat

Possible instead of (iv) is (v) (example from Cinque 1988, p. 484).

- (v) Chi non mangia non ingrassa.

But *chi*, which is also used in interrogatives, is impossible in both normal and stranded relatives.

There are thus many reasons from the domain of relative pronouns to take stranded relatives to be normal relatives that have been left behind upon movement of their “head.”

4. A major difference between relatives and quantifiers concerns intermediate positions.

- (i) The men were all injured in the accident.

- (ii) *A man was who has no relatives injured in the accident.

It may be that the ungrammaticality of (ii) is an extreme case of the constraint against complex specifiers discussed earlier at (35) and (55) of chapter 8.

5. See the discussions of (14) and (58) of chapter 7, where the same point is made for heavy NP shift and right-dislocation.

6. The fact that there are two violations and in particular a theta-violation in (5) may account for the fact that (5) borders on the incomprehensible in a way that I think goes beyond even ECP violations.

7. See Huang's (1993, p. 115n.) argument against V'-fronting.

Leftward IP-movement that strands a zero complementizer is possible within DP in N-final languages; see the discussion of (41) of chapter 8. Whether such pre-D IPs can ever subsequently raise out of DP (and if not, why not) is left an open question.

To judge by Srivastav (1991), and in particular by her argument (p. 650) from multiple relativization, Hindi correlatives are not instances of ordinary relatives extracted from DP. Rather, as she notes (p. 680), they are somewhat like English free relatives, including those with *-ever* mentioned in note 13 of chapter 8.

8. Left open is the question of how to distinguish these cases from others where lack of a c-commanding antecedent seems not to lead to ungrammaticality; see the third paragraph of note 24 of chapter 8. Perhaps relevant is the focused status of *something* in (3), as discussed below in the text.

9. See Rochement and Culicover 1990, p. 36, and references cited there. Rochement and Culicover's account is based on right-adjunction and therefore incompatible with the present theory.

10. The constituent '[*le*]_i who...]' following *up* in (14) is complement to *up*; see the discussion of particles in section 7.2.

11. VP-deletion can leave behind the relative in (i), as Baltin (1981, p. 267) observes.

- (i) Although nobody would ride with Fred who knew just him, people would who knew his brother.

This cannot now be attributed to the relative being outside VP but must rather be assimilated to the phenomenon briefly discussed above at (26) of chapter 7, perhaps implying that the relative in (i) has moved above VP to the left (though remaining below its “head”).

Note that (ii) is impossible, indicating clearly that it is asymmetric c-command rather than precedence that is at the heart of the matter.

- (ii) *A man who had no money walked into any room.

Although (24) is marginally possible with *no* taking wide scope over *a*, it seems fully ungrammatical if interpreted with *a* having wide scope over *no*. This is probably related to the independent restriction on *any* mentioned at the end of note 72 of chapter 8.

12. With “free choice” *any* one might have (i).

- (i) A man could walk into any room who had no money.

Here, of course, *any* is not being licensed by negation.

13. Many of these PPs may be reduced relatives in the extended sense of sections 8.4–8.6. I will not pursue PP-stranding further, however.

14. Contrary to Lasnik and Saito (1992, p. 100). Consider the fact that stranded PPs are sometimes compatible with extractions from within them.

- (i) ?That's the house that I think I'm gonna send a photograph to John of the roof of.

15. From this perspective, *a man* is not itself a DP but is instead of some “smaller” category, perhaps QP. That is, Spec,IP in (33) is not filled by a full DP. This recalls Pesetsky's proposals (1982) about Russian and might lead to an understanding of why Italian has no relative clause stranding with preverbal subjects, as observed by Cinque (1982, n. 28). (The idea would be that Italian is like Russian in not allowing QP subjects; English and French would be different.)

In the same spirit, it might be that English (and Dutch/German) scrambling of the following sort is incompatible with QP.

- (i) *John sent to someone a very valuable gift who he knows well.

Phrases with a demonstrative *the* as in (35) act like QP here.

- (ii) *John sent to the very man a very valuable gift who he had just criticized.

If the subject position filled with QP in (33) and (35) counted as an A-position, then movement up to it from Spec,CP would produce an “improper movement” violation.

Improper movement from an \bar{A} - to an A-position may underlie the impossibility of (iii), if derived by leftward movement of *a man who* from the Spec,CP whose associated IP is *we knew in high school*.

- (iii) *A man who just walked in we knew in high school.

16. The fact that omitting *ever* does not improve (38) in the relevant reading suggests that free relatives without *ever* have some abstract counterpart to it. Perhaps also relevant here is the fact that QP cannot move past *the*, stranding it.

(i) *Man walked in the who I'd been telling her about.

Note that the analysis of *ever* as an outside D accounts for (ii).

(ii) *We'll hire the people whoever you choose.

The impossibility of (iii) can be attributed to the inability of a head to move into Spec, IP and/or to the inability of D to raise at all.

(iii) *Whatever came out late books I wanted to read.

17. Regarding the perhaps different case of stranding under *w/h*-movement, Huot (1981, p. 268) has observed, however, that (in my terms) stranding of *de*-AP (see section 8.6) readily leaves *de*-AP in what looks like argument position in non-prepositional cases, but not in prepositional cases.

Perhaps relevant here is the fact that quantifier stranding under *w/h*-movement is usually not possible with (nonadative) prepositions; see Kayne 1975, secs. 1.2 and 2.14).

18. Pesetsky's (1995) idea that '... talk to John tomorrow' can correspond to a small clause structure embedded under *to* might be considered here, though it would not readily generalize to Dutch/German counterparts of (39).

19. Further movement of *someone* (= QP) by itself must be prohibited when P is lexical.

(i) *John is going to talk someone tomorrow to who he has a lot of faith in.

20. The left-adjoined *to* will c-command its trace, given the definition of c-command adopted earlier; see (16) of chapter 3.

To avoid the kind of violation discussed in section 3.7, it might suffice to say that a head X counts as being dominated by the category XP (its own maximal projection) even when moved to a position in which it is only included in XP. Thus, in (i)

(i) [_{NP} _{top} _{to} [_{NP} _{left}] [_{NP} _{right}] _D [_{NP} _{right}]...]

to will count as being dominated by PP and hence will not c-command out of PP.

21. How to characterize "too deeply embedded" is an important question that is not central to the text discussion. (Chomsky (1981, p. 82, (9i)) accepts an example similar to (45) that I find unacceptable.)

22. Better than (47) for me with coreference is (i).

(i) He doesn't know what to do with it, John has so much money.

This construction might involve the preposing of the complement of the empty counterpart of result clause *that*.

23. On the clausal status of the object gap of *expected*, see Vergnaud 1975.

Chapter 10

1. Strictly speaking, it is the LCA plus the proposal given in sections 4.1–4.3 that together ensure the mapping to linear *precedence*.

2. The extra use of simultaneity available in sign languages like ASL raises an interesting question. Either hierarchical structure must be different there than in spoken language (if linear order really does not play the same role), or there must be a level of representation with greater linear ordering than is apparent that mediates between hierarchical structure and simultaneity.

For a very interesting application of the ideas of this monograph to questions of parsing, see Wu 1993.

3. Chomsky 1994 appeared too late to be discussed in this monograph.

4. Note that crossing branches of the sort advocated by McCawley (1982) are also excluded, given that asymmetric c-command implies precedence.