

Skeptical Linguistic Essays

Chapter 3 A New Raising Mystery

Section 1 Background

Some quarter of a century ago a debate took place about the proper analyses to be assigned to various English clauses with *non-finite* complements, including those like (1):

- (1)a. The doctor considered *the condition* to be untreatable.
- b. Most observers perceived *them* to be nervous.
- c. Isabelle proved *Jerome* to have vampire like properties.
- d. Lydia wants *Ken* to succeed.
- e. The general wishes *you* to stand at attention.

At issue inter alia was the superficial clausal status of the highlighted DPs, hereafter, the *pivot* DPs. Principal works involved include Chomsky (1973, 1981), Postal (1974, 1977), Lightfoot (1976), Bresnan (1976), and Bach (1977). Under the view defended in Postal (1974, 1977), and a bit in Postal and Pullum (1988), the pivot DPs were in one aspect of the structure of such sentences *subjects* of the complement clauses, but in another aspect of that structure, *objects* of the main clause. Under the view advocated in Chomsky (1973), the pivot DPs were *exclusively* subjects of the complement in every relevant structural aspect. Other positions are logically possible; e.g., Pollard and Sag (1994: Chapter 3) claim that the pivot DPs in (1) are exclusively main clause objects.

It is unclear where these matters stand today. With the passage of time, the grammatical assumptions and theoretical commitments which underlay the debate of the 1970s have evolved; no one involved in those discussions holds today a theoretical position entirely like, perhaps even much like, that they held then. Moreover, new facts have of course come to light. It would thus be appropriate to reconsider the whole web of issues surrounding cases like (1).¹ But that task greatly exceeds the scope of this chapter. Rather I focus here on a specific range of data which played no role in the earlier discussions but which I believe bear significantly on the proper analysis of these constructions.

Before getting to that, let me though sketch informally my own current position on these matters. This is not so easy for the major reason that I think about such issues in terms of a relational or *arc* based view of syntactic structure which is not widely known. Anyone interested should consult works like Johnson and

Postal (1980), Postal (1990a, 1992, 1996) and Chapter 1, Section 9. It is not possible to discuss this conception in detail here. That is a major reason why what I will say will be quite informal.

The original controversy took place internal to a certain number of assumptions defining what was then called *transformational grammar*. Not accidentally, the subtitle of Postal (1974) included the phrase ‘One Rule of English Grammar’ a reference to a particular transformational operation whose existence was argued for. I have however long since rejected the idea that transformational rules, whether schematized as in Chomsky’s *move α* formulations of recent decades, or not, play any role in NL. More generally, I claim that there is no motivation for any *generative* apparatus at all. An NL grammar should, I believe, be regarded as an *axiom system* whose elements are statements to which truth values can be assigned, not as a sentence formation machine implementable as a computer program. I cannot defend this view here but I hope to have at least made it clear that among the ideas I reject are those which both the opposing position and mine *shared* in the 1970s debate. See Chapters 6 and 13 for further discussion of the issue of generative vs. nongenerative grammars.

Despite these differences from my 1974 framework, much of the substance of the earlier raising view of the relevant English clauses can be extracted from a transformational position and formulated in terms of a nongenerative conception of grammars and an arc-based conception of sentential structure. And, if this is done, I believe the essence of the 1974 claims to be correct, even though some of the arguments for them were unsuccessful. The preservable substantive view is informally that stated at the beginning. The pivot DPs in cases like (1) are in one aspect of sentence structure subjects, in fact, typically what relational frameworks call *final subjects*, of the complement clauses, but also *non-initial* objects of some kind of the main clause. In arc terms, the pivot DPs head 1-arcs in the complement and *non-initial* 2-arcs in the main clause.

Incidentally, one simple argument for a raising analysis which was *not* unsuccessful is that based on the *particle positioning* facts in (2):

- (2)a. Helen *made* there out to be seven gorillas in the clearing.
- b. Helen *made* it out to be seven miles to the next gas station.
- c. Helen *figured* it out to be impossible to square most circles.

The point was that the highlighted main verbs and particle out are lexically linked even though the latter follows the pivot DP. Under the position taken by Chomsky (1973, 1981) then, an element lexically linked to the main verb, would have to be taken to appear inside the complement clause, while under a raising

analysis, it can be taken to be a normally positioned main clause particle. Remarkably, no defense of Chomsky's position has, as far as I am aware, ever addressed this argument.

By including cases like (1d, e) under the raising to object umbrella, I enter into especially controversial territory. For a number of writers, most notably Lightfoot (1976) and Bach (1977) in their reviews of Postal (1974), claimed that whatever the status of the raising claim for cases like (1a-c), involving what I called *B-verbs*, that for cases like (1d, e), involving what I called *W-verbs*, is much worse. Both invoked an earlier analysis from Bresnan (1972) which appealed to distinctions in complementizer status for the two cases. This line of thinking receives a modern interpretation in Lasnik and Saito's (1991) work which recognizes some kind of raising for the B-verb case, while still denying it for the W-verb structures. The view that the pivot DP is a main clause constituent in both B-verb and W-verb cases, contra the view of Chomsky (1973), is supportable though by the grammaticality of cases like (3):

(3)a. Herbert proved Henry *without any difficulty* to be a spy.

b. Herbert desires/wants/wishes Henrietta *with all his heart* to recover.

Under any straightforward implementation of Chomsky's view, the highlighted main clause modifying adverbials are inside a subordinate clause, an IP in some instantiations, which is of course otherwise unknown.

As a last background remark, I should state that my current view actually recognizes a scope for the raising of subjects into non-subject status in English even *broader* than was central to the earlier discussion. For, as discussed in detail in Chapter 2, I now take all of the *prepositional phrase* cases in (4) to instantiate such raising:

(4)a. We can't count on *there* to be enough beer to keep all the students happy.

b. One cannot depend on *the lovebug* to bite him just when it would be convenient for us.

c. You can rely on *all hell* to break loose when the regional director shows up.

d. Stan arranged for *there*, despite my misgivings, to be a meeting with the students.

Such cases were barely touched on in the 70s. But as was discussed in Chapter 2, not only Chomsky's GB framework, but the HPSG framework of Pollard and Sag and Bresnan's LFG framework have all been explicitly constructed so as to *bar* a raising analysis of cases like (4); apparently the former two frameworks would impose instead a *control* analysis, while the latter appeals to a variant of 'reanalysis' which is not viable. The pleonastic pivot DPs in (4a, d) and the idiom chunk pivot DPs in (4b, c) already cast

considerable doubt on a control analysis, and as shown in Chapter 2, there is much other evidence as well against a control view of such cases.

Section 2 Some Puzzling Facts

The central topic of this chapter is introduced by data like (5):

- (5)a. (I am sure that) The woman who is favored to win screamed.
- b. (I am sure that) The woman who is favored to win is a doctor.
- c. (I am sure that) The woman who is favored to win is you.

English clauses like (5a-c) seem initially parallel; each apparently involves a different type of predicate phrase occurring with an instance of the same subject. But these apparently identical subjects fail to behave identically in a variety of constructions, as shown in (6)-(10); here and throughout indexed subscripted letters t_i , pg_i are used to indicate extraction gaps/parasitic gaps, with *no* theoretical implications about the existence of traces, etc.

(A) *Topicalization*

- (6)a. [The woman who is favored to win]₁, I am sure t_1 screamed.
- b. [The woman who is favored to win]₁, I am sure t_1 is a doctor.
- c. *[The woman who is favored to win]₁, I am sure t_1 is you.

(B) *Clefting*

- (7)a. It is the woman who is favored to win who₁ I am sure t_1 screamed.
- b. It is the woman who is favored to win who₁ I am sure t_1 is a doctor.
- c. *It is the woman who is favored to win who₁ I am sure t_1 is you.

(C) *Object Raising*

- (8)a. [The woman who is favored to win]₁ is hard to believe t_1 to have screamed.
- b. [The woman who is favored to win]₁ is hard to believe t_1 to be a doctor.
- c. *[The woman who is favored to win]₁ is hard to believe t_1 to be you.

(D) *Object Deletion*

- (9)a. [The woman who is favored to win]₁ is too old for us to believe t_1 to have screamed.
- b. [The woman who is favored to win]₁ is too old for us to believe t_1 to be a doctor.
- c. *[The woman who is favored to win]₁ is too old for us to believe t_1 to be you.

(E) *Parasitic Gaps*

- (10)a. the guy who₁ they will arrest t_1 after proving pg_1 to have screamed
- b. the guy who₁ they will arrest t_1 after proving pg_1 to be a doctor

- c. *the guy who₁ they will arrest t₁ after proving pg₁ to be you

While initially anomalous-seeming, the differences in (6)-(10) can apparently be reduced to regularities under well-motivated assumptions, given the facts in (11), which show up when one replaces the subjects of the relevant clauses in (5) with *weak definite pronouns*:

(11)a. (He noticed [the woman who is favored to win]₁ because) she₁ screamed.

b. (He noticed [the woman who is favored to win]₁ because) she₁ is a doctor.

c. *(He noticed [the woman who is favored to win]₁ because) she₁ is you.

These data show that the subject position in (5c) but not those in (5a, b) is an *antipronominal context* in the terminology of Postal (1993a, 1993c 1994a, 1994b, 1998, 2001a, 2001b), a position from which *weak* definite pronouns are, for whatever reason, barred.

This can explain the contrasts in (6) and (7) under the assumption argued in Postal (1994b, 1998) that both DP topicalization and DP clefting in English are what were called *B-extractions*. These *obligatorily* link to invisible resumptive pronouns in their extraction sites. For, if, as also argued in some of those publications, resumptive pronouns are weak definite pronouns, it follows that B-extraction sites and antipronominal contexts should in general fail to intersect. The works just cited argue that this is the case; but see Levine (2001) for a skeptical rejection of these ideas. I believe that what follows not only appeals to the notion of B-extractions but in fact supports their recognition.

Six examples involving antipronominal contexts distinct from that in (5c) are given in (12)-(17):

(12)a. Herman was speaking French/it.

b. Herman was speaking in French/*it.

c. [Which language]₁ was Herman speaking (in) t₁?

d. French₁, Herman was definitely speaking

e. *French₁, Herman was definitely speaking in t₁.

(13)a. Ethel was inside of the sphere/it.

b. Ethel was inside the sphere/*it.

c. [Which sphere]₁ was Ethel inside (of) t₁?

d. [That sphere]₁, Ethel was inside *(of) t₁.

(14)a. Marjorie quit that police unit/*it/*them.

b. [Which police unit]₁ did Marjorie quit t₁?

- c. *[That police unit]_i, Marjorie quit t₁ last week.
- (15)a. She gave those walls a coat of paint because he would not give them a coat of paint/*it.
 - b. [Which coat of paint]_i did she give those walls t₁? (answer: the second).
 - c. *[That coat of paint]_i, I gave those walls t₁.
- (16)a. There were particles of plutonium/*them in the pudding.
 - b. [Which kind of particles]_i were there t₁ in the pudding?
 - c. *[That kind of particles]_i, there were t₁ in the pudding.
- (17)a. She was unable to tell (= ‘determine’) the distance to the sound/*it.
 - b. [Which distance]_i was she unable to tell t₁?
 - c. *[The distance to the sound]_i, she was unable to tell t₁.

The contrasts in (12)-(17) receive a parallel explanation from the same underlying pronoun contrasts if it is accepted, as claimed in e. g. Cinque (1990), Postal (1994a, 1994b, 1998, 2001a, 2001b), that the gaps in the *object raising*, *object deletion* and *parasitic gap* constructions also are invisible weak definite pronouns. In further support of these claims, note that these constructions too cannot have as their gaps the antipronominal contexts in (12)-(17); see (18)-(23).

- (18)a. [That language]_i is difficult to speak (*in) t₁
 - b. *[That language]_i is too complex for me to speak (*in) t₁.
 - c. [Which language]_i did he criticize t₁ while speaking (*in) pg₁?
- (19)a. [That sphere]_i is impossible to get inside *(of) t₁.
 - b. [That sphere]_i is too small to get inside *(of) t₁.
 - c. [Which sphere]_i did Melissa criticize t₁ after finding herself inside *(of) pg₁?
- (20)a. *[That police unit]_i was difficult for Marjorie to quit t₁.
 - b. *[That police unit]_i is too well paid for Marjorie to quit t₁.
 - c. *[Which police unit]_i did Helga join t₁ immediately after Marjorie quit pg₁?
- (21)a. *[The second coat of paint]_i was difficult for her to give the walls t₁.
 - b. *[The second coat of paint]_i will be too thick for a child to give those walls t₁.
 - c. *[Which coat of paint]_i did Marsha criticize t₁ after Sally gave those walls pg₁?
- (22)a. *[Those particles]_i were impossible for there to be t₁ in the pudding.
 - b. *[Those particles]_i are too rare for there to be t₁ in the pudding.
 - c. *[Which (type of) particles]_i did there being pg₁ in the pudding lead the FDA to ban t₁?
- (23)a. *The distance to the sound was impossible for her tell.

- b. *The distance to the sound was too far for her to be able to tell.
- c. *[What distance]_i did her being unable to tell pg_i lead Jim to try to estimate t_i?

The background facts so far would not in themselves merit much further discussion. What does though is data not, I believe, previously noticed which relate to previous claims in Postal (1994a) formulable informally as in (24) and (25):

(24) Right Node Raising DP gaps, in contrast to those involving e.g. topicalization or clefting DP gaps, are not sensitive to antipronominal contexts.

(25) Complex DP Shift gaps are not sensitive to antipronominal contexts.

These claims, linked to the view that, unlike e.g. Topicalization, neither Right Node Raising nor Complex DP Shift require resumptive pronouns, indicate that nothing should preclude intersection of the classes of Right Node Raising and Complex DP Shift gaps with antipronominal contexts. Claim (24) can be supported by data like (26), involving antipronominal contexts already mentioned:

(26)a. Ted may have spoken (in) t_i and Sandra certainly did speak (in) t_i -[that very obscure oriental language]_i.

b. Ted may have gotten inside (of) t_i and Sandra certainly did get inside (of) t_i [that very peculiar looking sphere]_i.

c. Marjorie certainly quit t_i last week and Jane will probably quit t_i this week [that very prestigious police unit]_i.

d. Lester may have given those walls t_i and he certainly gave these walls t_i [a second coat of paint]_i.

e. There may be t_i in the first sample and there certainly are t_i in the second sample [the sort of particles at issue]_i.

f. Ted may have been unwilling to say she was unable to tell t_i but she was unable to tell [the distance to the overheard sound]_i.

Claim (25) cannot be supported from all of the same antipronominal contexts given the fact first noted in Ross (1967) that Complex DP Shift gaps cannot be complement DPs of prepositional phrases. But (25) is still easily supportable, as in (27):

(27)a. Ted dyed his eyebrows green/that color/*it yesterday.

b. Ted dyed his eyebrows t_i yesterday [an awful shade of bright yellow]_i.

c. Ted gave that idea a lot of consideration/*it yesterday.

d. Ted gave that idea t_i yesterday [more consideration than it deserved]_i.

- e. Marjorie quit t_1 last week [that very prestigious police unit]₁.
- f. Molly will give that wall t_1 tomorrow [the second coat of paint it needs]₁.
- g. There were t_1 in the pudding [exactly the sort of particles we had feared]₁.
- h. Ted was unable to tell t_1 with any exactitude [how far the alien planet was from our solar system]₁.

Given this background, the contrasts in (28) and (29) are initially rather bewildering:

(28)a. Ted may believe t_1 to have screamed and Archie does believe t_1 to have screamed [the woman who is favored to win]₁.

b. Ted may believe t_1 to be a doctor and Archie certainly does believe t_1 to be a doctor [the woman who is favored to win]₁.

c. *Ted may believe t_1 to be you and Archie certainly does believe t_1 to be you [the woman who is favored to win]₁.

(29)a. I believe t_1 to have screamed [the woman who is favored to win]₁.

b. I believe t_1 to be a doctor [the woman who is favored to win]₁.

c. *I believe t_1 to be you [the woman who is favored to win]₁.

For the good and bad cases of this Right Node Raising and Complex DP Shift data match exactly the pattern of ordinary and antipronominal contexts in (5). That is, the ungrammatical cases of (28) and (29) would apparently be what one would expect if Right Node Raising and Complex DP Shift *were* somehow sensitive to antipronominal contexts. But this is just what (24) and (25) deny, and, as I have illustrated, with real factual motivation. This seemingly points to the ugly conclusion that (28c) and (29c) are bad for (unknown) reasons having nothing to do with (5) and hence nothing to do with the parallel instances of ill-formedness in the topicalization, clefting, object raising, object deletion and parasitic gap paradigms. Such an ‘accidental similarity’ conclusion is obviously thoroughly implausible, even for a single antipronominal context case like that in (5c).

And the dubious status of an ‘accidental similarity’ view worsens when it is observed that the same state of affairs exists for other subject antipronominal context cases, like those in (30):

(30)a. Something is the matter with his fuel pump (*but it is not the matter with mine).

b. Lots of things are wrong with my liver (*but fortunately they are not wrong with your liver).

As expected, these antipronominal sites are incompatible with topicalization, object raising, etc.; see (31).

(31)a. *[Something really terrible]₁, they claimed t_1 was the matter with the fuel pump.

- b. *[Something like that]_i was impossible to believe t_i to be the matter with the fuel pump.
- c. *It was that which_i they claimed t_i was wrong with her liver.
- d. *That_i is too rare to believe t_i to be wrong with her liver.

And just like the antipronominal context in (5c), those in (30) also correlate with bad Right Node Raising and Complex DP Shift gaps in cases parallel to (28) and (29), that is, in putative raising to object structures like those of (32).

- (32)a. *Ted may have claimed t_i to be the matter with the fuel pump and Joe did claim t_i to be the matter with the fuel pump [something really terrible]_i.
- b. *Ted claimed t_i to be the matter with the fuel pump [something probably irreparable]_i.
- c. *The doctor may have believed t_i to be wrong with her liver and the nurse did believe t_i to be wrong with her liver [something requiring immediate surgery]_i.
- d. *The doctor believed t_i to be wrong with her liver [something really terrible]_i.

One can summarize the discussion so far as follows. Where it was previously claimed that neither Right Node Raising nor Complex DP Shift gaps are incompatible with antipronominal contexts, conclusions supported consistently by data like (26) and (27), at least one class of subject antipronominal contexts *do* seem to induce Right Node Raising and Complex DP Shift violations under specific conditions, namely, where these define instances of the raising to object construction. So (33) seems to be the case:

(33) If α is a subject antipronominal context, and X is a putative raising to object structure whose complement subject occurs in α , then the derived object position in X is *not* compatible with Right Node Raising and Complex DP Shift gaps.

Assuming that (33) is essentially true, a conclusion for which further evidence will be provided, it can hardly be an accident. The incompatibility of certain raised subjects with Right Node Raising and Complex DP Shift in these particular circumstances must relate to the existence of the relevant subject antipronominal contexts. This creates an apparent *paradox*, given (24) and (25), which state that Right Node Raising and Complex DP Shift in general are indifferent to antipronominal contexts, and which are supported by considerable data independent of the raising to object constructions at issue.

Section 3 An Initial Approach to the Paradox

One would like to maintain (24) and (25) without any ad hoc exceptions for the raising to object construction or any other and yet still reduce generalization (33) to the fact that the raised phrases are subjects occurring in antipronominal contexts. Securing this result involves initially *four descriptive elements*, informally describable as follows. *Element one* is to continue to assume, as in previous work of mine, that Topicalization is, but Right Node Raising and Complex DP Shift are *not*, in general sensitive to antipronominal contexts because the former must, but the latter need not, link to (evidently invisible) resumptive pronouns in their extraction sites. This means that Topicalization is a B-extraction but that Right Node Raising and Complex DP Shift contrast in not determining resumptive pronouns.

Element two is to assume that the constructions at issue do involve raising to object. Focus for concreteness on e.g. (34d):

(34)a. Ted claimed it to be imminent.

b. Ted claimed t_1 to be imminent [something probably irreparable]_I.

c. Ted claimed something probably irreparable to be the matter with the fuel pump.

d. *Ted claimed t_1 to be the matter with the fuel pump [something probably irreparable]_I.

Given element two, both (34b, d) will involve raising of the lower subject out of the lower clause and into the main clause. *Element three* consists of informal assumption (35):

(35) In the cases where Right Node Raising and Complex DP Shift are bad, the instance of raising to object involves its own *proper (invisible) resumptive pronoun*.

Claim (35) means that in (34d) the raising of something probably irreparable out of the complement requires the presence of a resumptive pronoun as subsequent complement subject, although this is *not* the case in (34b) where the raising is from a context which is *not* antipronominal. So, under current assumptions, the pronouns which end up *violating* the antipronominal context condition on the subject of e.g. be the matter with are resumptive pronouns linked to raising to object, *not* resumptive pronouns linked to Right Node Raising or Complex DP Shift. This means inter alia that in a fuller schematic structure of (34d), there is an resumptive pronoun in the complement, but none in the main clause:

(36) *Ted claimed t_1 <RP_I to be the matter with the fuel pump> – [something probably irreparable]_I.

The fact that the resumptive pronoun is an element of the infinitival complement is what guarantees consistency with principle (25). For the Complex DP Shift gap is in the main clause, while the antipronominal context is in the complement.

Significantly, claim (35) cannot be interpreted to mean that the presence of raising-linked invisible resumptive pronouns is *uniformly* associated with raising to object, even for the very main verbs like believe at issue and even for the very antipronominal subject complement types under consideration. The impossibility of such a general conclusion is shown as follows. A variety of raising to object structures whose defining elements raise out of subject antipronominal contexts are perfectly grammatical when the raised form is *not* extracted under Right Node Raising or Complex DP Shift. The latter condition is met if the raised phrase is either left extracted or not extracted at all. So all of (37) are fine, although the lower subject is, as already seen, in each case an antipronominal context:

- (37)a. Ernestine believes the person favored to win to be you.
- b. Ernestine believes something grave to be the matter with the fuel pump.
- c. Ernestine believes something probably fatal to be wrong with her liver.
- d. Who₁ did Ernestine believe t₁ to be you?
- e. [Nothing of the sort]₁ did Ernestine believe t₁ to be the matter with the fuel pump.
- f. [No matter what]₁ Ernestine believed t₁ to be wrong with her liver,...
- g. Something grave was believed to be the matter with the fuel pump.

To maintain consistency with this antipronominal character, cases such as (37), like (34b) and significantly unlike (34d), must *not* involve complement subject resumptive pronouns. Therefore, a required *element four* is as in (38).

(38) Although (a) raising to object can *in general* link to a complement subject resumptive pronoun or not, (b) a linked subject resumptive pronoun in the complement is *obligatory* if the object formed by raising serves as the extractee for Right Node Raising or Complex DP Shift

That is, an absolutely essential feature of the present four element proposal about the raising to object cases is that association of a resumptive pronoun with an instance of English raising to object is *conditional* on whether or not the raisee is an extractee in the higher constituent, and, moreover, an extractee of the Right Node Raising or Complex DP Shift types. While there are syntactic views which could not incorporate such a ‘non-derivational’, ‘non-cyclic’ condition, happily a relational framework of the sort described in Johnson and Postal (1980), Postal (1990a, 1992, 1996) and Chapter 1, Section 9 faces no problems with such an account, which would be quite straightforward.² I will argue though that what is involved is more

general, and is not limited to raising to object cases nor to those involving Complex DP Shift or Right Node Raising.

Section 4 Expanding the Data Base

The factual grounding of conclusion (38) is stronger than so far indicated. Further support will derive from any other more or less lexical type of subject antipronominal context. For (38) predicts that any such subject which enters into the raising to object construction will *fail* to permit Right Node Raising or Complex DP Shift of the raised subject. Christopher Potts has pointed out to me several further cases including, first, the expression in (39a):

(39)a. Nothing/Very little/Little of value/*It came of that proposal.

b. He believes little of value to have come of that proposal.

c. *He believes t_1 to have come of that proposal [little of value]₁.

d. *Frank may believe t_1 to have come of that proposal and Gloria does believe t_1 to have come of that proposal [little of value]₁.

Just as principle (38) predicts, both types of right extraction structures are ill-formed. Second, Potts observes the expression in (40a):

(40) (Scientist notices his lab rat has gained incredible strength after its injection):

a. What! Something strange is going on here! But that/*it was not going on before the injections.

b. *Dr. Frankenstein believes t_1 to be going on in his lab [something quite strange]₁

c. *Dr Frankenstein may believe t_1 to be going on in his lab and he certainly believes t_1 to be going on in your lab [something quite strange]₁.

Again the otherwise anomalous gaps in Right Node Raising and Complex DP Shift paradigms are as predicted by (38).

Third, Potts notes that the sense of the verb eat roughly equivalent to that of bother found in (41a) also has an antipronominal context subject, as supported by the data in (41b):

(41)a. What's eating/bothering Gilbert Grape?

b. Something is eating/bothering you, Gilbert, I can tell. (But whatever it is, it is not *eating/bothering your sister.)

c. Donna believes t_1 to be *eating/bothering Gilbert [something incomprehensible to her]₁.

d. Donna may believe t_1 to be *eating/bothering Gilbert and she certainly believes t_1 to be *eating/bothering Neil [something incomprehensible]₁.

And once more the Right Node Raising and Complex DP Shift paradigm holes predicted by (38) are found.

Section 5 Links to Raising to Subject Structures

So far I have supported descriptive principle (35) with six instances of antipronominal subject contexts. These data, involving what I consider raising to *object* structures, reveal certain striking parallels in relatively uncontroversial raising to *subject* structures, for example, with the adjectival raising to subject trigger likely. Consider for example (5') parallel to (5) and (28') parallel to (28) and (29):

- (5')a. The woman favored to win is likely to scream.
b. The woman favored to win is likely to be a doctor.
c. The woman favored to win is likely to be you.
(28')a. How likely to scream is the woman favored to win?
b. How likely to be a doctor is the woman favored to win?
c. *How likely to be you is the woman favored to win?

The antipronominal context, which in (28) and (29) precludes the raised subject in a raising to *object* structure from being an extractee for Right Node Raising or Complex DP Shift, in these raising to *subject* cases is incompatible with the fronting of the adjectival phrase including the raising trigger. To see that this parallelism is nonfortuitous, observe that a parallel holds for other antipronominal contexts cited for the object case, as shown in (32'), (39'), (40') and (41').

- (32')a. Something serious was likely to be the matter with the fuel pump.
b. *How likely t_1 to be the matter with the fuel pump was [something serious]₁?
c. *Likely to be the matter with the fuel pump though [something serious]₁ was, ...
d. [Something really grave] is likely t_1 to wrong with her liver.
e. *How likely t_1 to be wrong with her liver is [something really grave]₁?
f. *Likely to be the wrong with her liver though [something really grave]₁ was, ...
(39')a. Nothing (much)/Very little/Little of value is likely to come of that proposal.
b. They claimed little of value was likely to come of that proposal (*and likely t_1 to come of that proposal [little of value was]₁).
c. *Likely t_1 to come of that proposal though [little of value]₁ was, ...

- (40')a. Something unexpected is likely to be going on in that lab.
 b. *How likely t_1 to be going on in that lab is [something unexpected]₁?
 (41')a. Something seemingly trivial is likely to be eating/bothering Gilbert.
 b. How likely t_1 to be *eating/bothering Gilbert is [something seemingly trivial]₁?
 c. Likely t_1 to be *eating/bothering Gilbert though [something seemingly trivial]₁ was, ...

The good variants of (41'b, c) already show that there is no *general* ban on combining the sort of frontings at issue with raising to subject structures. This is evidenced further in (42) and (43):

- (42)a. How likely t_1 to show up late are [some of your students]₁?
 b. How likely t_1 to puzzle a child is [something that strange]₁?
 c. How likely t_1 to raise eyebrows is [something so risque]₁?
 d. Likely t_1 to show up late though [some of your students]₁ are, ...
 e. Likely t_1 to puzzle that child though [something that strange]₁ is, ...
 (43)a. They said that something serious usually tends to be the matter with the carburator/to happen at the wrong time.
 b. *and tend t_1 to be the matter with the carburator, [something serious]₁ usually does.
 c. and tend t_1 to happen at the wrong time [something serious]₁ usually does.
 c. Something like that is likely to be wrong with her liver/harmful to her liver.
 d. How likely t_1 to be harmful to her liver is [something like that]₁?
 e. *How likely t_1 to be wrong with her liver is [something like that]₁?

The raising to subject data apparently ground a descriptive generalization like (44):

(44) If α is a subject antipronominal context, and X is a putative raising to subject structure whose complement subject occurs in α , then the adjectival/verbal phrase containing the raising trigger cannot be left extracted.

Section 6 Generalizing Over Raising to Object and Raising to Subject Structures

Given that it has been found that constraints similar to those for raising to object cases hold for raising to subject ones, questions like those in (45) arise:

- (45)a. Why should the subject antipronominal contexts that were looked at in connection with putative raisings to *object* apparently interact with the adjectival and verbal phrase frontings to seemingly block certain raising to *subject* cases?

b. What structural property is shared by (i) Right Node Raising and Complex DP Shift interactions with raising to object and (ii) Adjectival Phrase fronting/raising to subject interactions such that both (38) and (44) hold?

Under the assumption that the sets of structures I have looked at, those with putative raising to object main verbs and those with raising to subject triggers like *likely*, *both* involve raisings, the following emerges. When a raised subject in the former case is the extractee for Complex DP Shift or Right Node Raising, the raised DP then *linearly follows* its own extraction site although it does arguably c-command it just as in a non-Complex DP Shift or Right Node Raising case. Moreover, when the whole adjectival phrase containing a raising to subject trigger is left extracted under either questioning, *though* extraction, etc., the raised DP both follows its own extraction site and fails to c-command it. I conclude that at least one of these two partially correlated properties is crucial in predicting the bad results.

But there is a deeper issue. Namely, since the linear precedence facts are common to *all* the cases and yet so far ungrammaticality has only been attested in those where the raising source positions are antipronominal contexts, a key puzzle is the linkage between antipronominal contexts and the word order influencing constructions. The crucial issue, I believe, is to understand how and why antipronominal contexts induce ungrammaticality in just a proper subset of the variety of cases I have documented.

I would like to propose that the linkage is essentially due to a generalization of the point inherent in the four element proposal made earlier about just the raising to object case. Namely, the structural conditions at issue, involving Right Node Raising and Complex DP Shift in the raising to object case, and left extractions of adjectival/verbal phrases in the raising to subject case, interact with antipronominal contexts because under the very structural conditions at issue, it is required that *either type of raising* leave a resumptive pronoun in the complement subject position. These are just the positions where antipronominal contexts have been shown to be associated with ungrammaticality. In short, just as I claimed earlier that e.g. (46a, b) have partially different complement structures in which (46a) need not but (46b) *must* involve a resumptive pronoun, just so one can make a parallel claim for (47):

(46)a. They found something quite trivial to be bothering/eating Gilbert.

b. They found t_i $\langle RP_1$ to be bothering/*eating Gilbert \rangle [something quite trivial]_i.

(47)a. Something quite trivial is likely to be bothering/eating Gilbert.

b. How likely $\langle RP_1$ to be bothering/*eating Gilbert \rangle is [something quite trivial]_i.

The posited resumptive pronouns provide the link between the reorderings and the restriction of ungrammaticality to *just those cases where the raising source position is antipronominal*.³

To develop the resumptive pronoun claim, it is of course necessary to give an account of the conditions under which raisings *must* link to resumptive pronouns. Since for reasons touched on at the beginning, I am not proposing a precise framework for this description, I can not approach this issue in a truly serious way. Still I suggest something like (48) is probably at work:

(48) The Raising Resumptive Pronoun Linkage Condition

a. Let the notion *raising* be restricted for this discussion to the case where some DP_x constituent of a complement clause C_1 also appears as a *non-initial* subject, object, or oblique constituent of a constituent K containing C_1 . Then:

b. If DP_x raises out of C_1 into K from position P , a resumptive pronoun *must* appear in P *unless all of (i)-(iv) hold*:

(i) DP_x is the last non-resumptive *subject* of C_1 ;

(ii) C_1 is *non-finite*.

(iii) If C_1 is a constituent of a clause C_2 , distinct from K , K is a constituent of C_2 (that is, C_1 is the *highest* clausal constituent of K).

(iv) The surface realization of DP_x both c-commands and linearly precedes a surface realization of the (raising) remnant of C_1 .

I must leave it open here whether (48) should be interpreted as a universal or merely a principle of English.

⁴ But the idea is that in ordinary raising to subject cases like that with English likely, all of (48bi-iv) will hold but that a legitimate NL raising construction can fail to satisfy any or all of them provided that a resumptive pronoun, *visible or not*, appears in the raising origin site. Put differently, I am suggesting that (48bi-iv) are the conditions required for raising which does *not* involve a resumptive pronoun.

To briefly go over the intended claims, (i) essentially picks out the case where the raisee is a subject; (ii) is self-explanatory, while (iii) specifies that the *highest* clause from which raising occurs is an immediate constituent of the clause of which the raised element is a noninitial constituent. Condition (iv) is the one crucial for this discussion. It requires that any raisee which does *not* link to a resumptive pronoun bear two

fixed structural relations to the remnant clause out of which it raises, and, moreover, requires these relations to hold at the surface level. Although (48biv) mentions c-command, there is in fact nothing in the English data gone over which really motivates that. For in every bad case of relevance which has been cited, the raisee ends up linearly following the raising remnant. Moreover, arguably, in the case of e.g. raising to object where the raisee is the target of Complex DP Shift or Right Node Raising, the raisee continues to c-command the site of origin for raising. My guess though is that, for (48biv) to have any cross-linguistic plausibility, something *non-linear* would no doubt be required.

What (51biv) says is that any grammatical phenomenon which brings it about that a raising remnant clause is not both c-commanded and linearly preceded by the raisee requires that the instance of raising involve a resumptive pronoun. This will inter alia generate ungrammaticalities in cases where the raising site is an antipronominal context.

There are relevant phenomena of a sort rather different from those so far illustrated which have effects like those referenced by (48biv), e.g. the clausal and verbal phrase ellipsis phenomena in (49):

(49) They said Carol was sick, a. as she is/b. which she is/c. and so she is/d. and that she is/e. and she is.

If (48) is on the right track, all of these should yield ungrammaticalities when combined with raisings. That is, one should for instance find contrasts in cases like (50):

(50) They said something was bothering/eating Gilbert, as something was/b. which something was/c. and so something was/d. and that something was/e. and something was.

And cases like (51) should just be outrightly bad:

(51) They said something of the sort was wrong with the transmission

- a. as. something of the sort was.
- b. which something of the sort was.
- c. and so something of the sort was.
- d. and that something of the sort was.
- e. and something of the sort was.

These are quite subtle data though, and I will leave it to readers to make their own judgments.

While a condition like (48) is motivated by data of the sort I have gone over involving raising to subject and raising to object in infinitival cases, it has a much broader scope. Limiting attention only to English, it first of all naturally allows a raising analysis of the construction in (52):

(52) Mike looks/seems/sounds like/as if *he* is a werewolf.

Since the highest clause out of which raising would occur in (52) is finite, (48) forces a resumptive pronoun, arguably represented by the highlighted form. A raising analysis of this construction is moreover supportable via traditional expletive and idiom chunk arguments, as first noted in Rogers (1973) and illustrated in (53) and (54):

(53)a. There look/*looks like/as if there/*it/*them/*her are/*is going to be problems with the dean.

b. There *look/looks like/as if there *are/is going to be a problem with the dean.

(54)a. The chickens look like they have finally come home to roost.

b. Martha's ship looks like it has come in.

c. The wolf looks like it is at the door.

d. The lovebug sounds like it has bitten Mary again.

e. The shit seems like it is about to hit the fan.

f. The ball sounds like it is in your court.

g. Fortune seems like it has finally smiled on Myriam.

I would take the *complement* occurrences of there in (53) to be resumptive pronouns, the rule being evidently that raised there determines a resumptive of the same shape and that a resumptive pronoun agrees with the element it 'resumes' in person, number and gender. Perhaps the same shape condition can be subsumed under the rule operative for tags like that of (55):

(55)a. There are gorillas in the field aren't there/*it/*they?

b. Into the bar there strode a mean looking dude didn't there/*it/*they?

It is rather remarkable that one has seen decades of theorizing about limitations on raising with postulation of principles which would *not* allow a raising analysis of this construction, despite the fact that it has been known for years.⁵ Moreover, views which would not allow a raising analysis seem to have offered no alternative.

Further, condition (48) is consistent with the fact that this construction seemingly has instances in which *non-subjects* raise, although these are restricted, in ways I do not understand; see (56).

- (56)a. Melissa sounds like Bob has been hassling her again.
- b. Melissa's arm looks like the dog has been biting it again.
- c. Melissa looks like Bob has been kicking her in the arm again.
- d. ?Melissa sounds like people want to force her to resign.
- e. Melissa sounds like Bob believes her to have a chance of winning.
- f. *There sounds like Bob believes there to be no chance of her winning.
- g. *The wolf sounds like Bob believes it to be at the door.

Principle (48) can also be taken as a key component in an understanding of the object raising construction, represented by the once famous sentence in (57):

(57) John is easy to please.

If, as in early transformational accounts, this is analyzed in terms of raising, since the raisees are in general *non*-subjects, (48) forces a resumptive pronoun. This predicts, correctly I believe, that the gaps for this construction are incompatible with antipronominal contexts, already partly supported earlier.

One thing which has been claimed to argue *against* a raising analysis of this construction is that it does not allow the raisee to be an idiom chunk, in comparison, for example, to raising with seem; see (58):

(58)a. Chomsky (1981: 309)

"We therefore expect it to be resistant to idiom chunks and other non-arguments..."

- b. Chomsky (1981: 309) *Good care is hard to take of the orphans.
- c. Chomsky (1981: 309) *Too much is hard to make of that suggestion.

But while true that such raising is far more restricted, that (58b, c) are bad and that the construction absolutely bars raising of expletives, as Chomsky noted, there are nonetheless numerous *acceptable* instances of idiom chunk object raising, as illustrated in (59):

- (59)a. The baby is easy to throw out with the bathwater.
- b. The ice is difficult to break at faculty parties.
- c. The cat will be easy to prove to be out of the bag.
- d. The jury is easy to show to still be out on that proposal.
- e. The bottom is now easy to imagine falling out of the cocoa market.
- f. Thatcher's shoes are impossible to imagine anyone like you filling.
- g. ?Stan's ass is not hard to anticipate being in a sling again.

- h. The rug is impossible for me to imagine being pulled out from under a guy like that.
- i. Jacobson (1992: 271): Careful attention was very hard to pay to that boring lecture.
- j. Jacobson (1992: 271) ?The cat would be quite easy to let out of the bag.
- k. McCawley (1998: 115) *The cat was easy to let out of the bag.
- l. McCawley (1998: 107) John's leg is easy to pull.
- m. Nunberg et. al. (1994: 517) The law can be hard to lay down.

Two further notes about object raising. While in American English it is I believe impossible to object raise a *subject* which has not independently raised to object, this is, I have learned, arguably *not* entirely so in British English. I heard an example essentially like (60) in a televised documentary with a British narrator:

(60) That attitude made [such a tragedy]_i all too easy t_i to happen.

I have checked this with two British speakers, both of whom seem to accept it, whereas for me, and I suspect all Americans, it is entirely impossible. One notes of course that the subject in question is *unaccusative* and brief investigation suggests that this is required. Even those accepting (63) seem to firmly bar (61):

(61). *That attitude made [such a tragedy]_i all too easy t_i to devastate Rodney.

I conclude then that both the finite construction of (55) and the object raising construction are bona fide raising cases required by (48) to involve resumptive pronouns. Of course, even if true, this still leaves open key issues. An obvious one is the visibility of the resumptives in the former and their absence in all the other cases I have dealt with. This suggests that at least English has a principle like (62), where the notation refers back to (48):

(62) Raising-Linked Resumptive Pronoun Visibility

A raising-linked resumptive pronoun is visible if and only if C₁ is finite.

Note that quite properly, principle (48) requires an *invisible* resumptive pronoun in cases where object raising raises a phrase from a finite clause which is itself embedded in a non-finite one, as in (63) for that subset of speakers like me, who accept such:

(63) Michelle_i will not be that easy [C₁ to inform them [C₂ that you plan to dismiss (ok RP₁ = Ø/*RP₁ = her)]]].

Section 7 Earlier Data

There are two further issues I want to raise, one involving a proposal by Lasnik and Saito and the other involving related but more general issues involving idiomatic DPs. First, Lasnik and Saito (1992: 140-142) cite observations attributed to my colleague Mark Baltin that (64a) and (65a) are bad despite (64b) and (65b). Both contrast with (66a).

(64)a. *How likely t_1 to be a riot is there₁?

b. There is likely to be a riot.

(65)a. *How likely t_1 to be taken of John is [advantage]₁?

b. Advantage is likely to be taken of John.

(66)a. How likely t_1 to win is [John]₁.

b. John is likely to win.

Lasnik and Saito proposed to account for (64a), (65a) and related data via a principle to the effect that a trace must be bound (hence c-commanded) by its antecedent, at every level; see (67):

(67) Lasnik and Saito (1992: 90) *The Generalized Proper Binding Condition*

Traces must be bound throughout a derivation.

At first glance, there is a remarkable partial parallelism between the cases in (64) and (65) and the raising to subject cases I cited earlier, e.g. (32'c), (39'b, e), (40'b) and (41'b). All involve ungrammaticality *only* when a raising to subject remnant is itself left extracted. The earlier cases involved raising of ordinary DPs from antipronominal contexts. The ones Lasnik and Saito deal with involve expletive and idiomatic DPs. One cannot help but inquire into whether the phenomena dealt with here and those for which Lasnik and Saito invoke (67) are the same. I find that there solid grounds for thinking they are the same, but also problematic issues which I do not currently know how to resolve and which could undermine this conclusion. I will briefly consider both the positive and negative aspects.

Consider first the expletive cases revealed by the there data Baltin noted. Here arguably there does not occur in antipronominal contexts. Rather there is reason to consider there itself a weak definite pronoun, as argued by (53a, b) above. This might make it appear that there is no way to directly reduce the facts to principle (48). But this is not necessarily so. It is evident that, as required by principle (62), in all the infinitival cases, when (48) requires a resumptive pronoun, the latter must be invisible. Suppose as I have speculated elsewhere (see Postal, 1993a: 752-753; 1994a: 93-96; 2001a: 237-238) about other types of

invisible resumptives, this is due to a type of *control* phenomenon. And suppose principle (68a) holds for everyone while some people have the still stronger (68b):

(68)a. The expletive there DP cannot control a *resumptive* pronoun.

b. The expletive there DP cannot control *any* pronoun.

Principle (68b) is motivated by facts in standard adjunct control environments like those of (69):

(69)a. * (There) being a gorilla in a living room proves there to be a gorilla in the bedroom.

b. */ok There can be war in the north without (there) being war in the south.

Everyone seems to reject control in (69a). But some speakers including *me* accept control in (69b), arguing that (68b) is too general. But even the weaker (68a) would combine with (48) to predict the badness of Baltin's there pattern. For in the environments where (48) forces raising of there to leave a lower resumptive pronoun, (62) in effect requires that pronoun to be controlled, while (68a) in effect forbids that, since the required controller cannot then serve as such. While this account is entirely informal, it seems basically coherent.

Turn next to idiom chunks and proverbial expressions. A variety of these seem to provide a great deal of support for a principle like (48). For a very large number of them involve DPs occurring in antipronominal contexts. Some of these take inherent subjects and some have non-subject antipronominal contexts which are passivizable, and which then form subject antipronominal contexts. And remarkably, such expressions reveal all the types of restrictions on raising to object and raising to subject I have documented for non-idiomatic antipronominal contexts. A typical example is seen in (70):

(70)a. (She said) [birds of a feather]₁ flock together (*and they₁ do flock together).

b. She believes birds of a feather to flock together.

c. *She believes t₁ to flock together [birds of a feather]₁.

d. *Sally may believe t₁ to flock together and Sonia certainly believes t₁ to flock together [birds of a feather]₁.

c. Birds of a feather are likely to flock together.

d. *How likely t₁ to flock together are [birds of a feather]₁?

e. *Likely t₁ to flock together though [birds of a feather]₁ are, ...

There is a problem relevant to testing e.g. principle (35) against such idiomatic data which is common though not severe in (70). This involves the fact that most often the relevant idiomatic nominal which appears in an antipronominal context is not particularly ‘heavy’ in the sense in which this might be a requirement for Complex DP Shift and certainly a preference for Right Node Raising. But in all cases, one can see that the effect in analogs of (70c, d) cannot be reduced to violation of any ‘heaviness’ requirement. Consider for instance (71):

(71)a. The cat is out of the bag.

b. Sonia believes the cat to be out of the bag.

c. They said the cat was out of the bag and it is out of the bag. (ok literal/*idiomatic)

Both (71a, b) are ambiguous, having either a literal reading about a feline or one involving a secret. But not so in (72):

(72)a. *Sonia believes t_1 to be out of the bag [the cat]₁.

b. ?Sonia may believe t_1 to be out of the bag and Harriet certainly does believe t_1 to be out of the bag [the cat]₁.

Here there may be violations of heaviness constraints on the pivot nominals for Complex DP Shift and Right Node Raising, although I believe that heavy stress on the pivot renders it acceptable. But independently of that, it is palpable that only the feline reading is possible, which cannot have anything to do with heaviness since the pivot is equally heavy under either reading. Consequently, some principle must block the idiomatic reading but not the literal one, and a principle which forces a resumptive pronoun combines with the antipronominal character of the subject position of the idiom to play this role.

One can cite a great deal more evidence supporting (48) based on subject antipronominal contexts linked to idiomatic or proverbial nominals. I have given a range of such data in the most restricted form possible. In all cases, strictures about the irrelevance of heaviness factors already touched on should be born in mind. Moreover, all stars represent only idiomatic or proverbial readings. The data is ordered essentially randomly in (73)-(78):

(73)a. [A great deal of attention]₁ was claimed to have been paid to that (*but t_1 wasn’t paid to that).

b. *Ernest believes t_1 to have been paid to that [a great deal of attention]₁.

c. *How likely t_1 to have been paid to that was [a great deal of attention]₁?

- (74)a. Sabine said [the chickens]₁ had come home to roost (*but they₁ hadn't come home to roost).
- b. *Sabine may have found t₁ to have come home to roost and Emily certainly found t₁ to have come home to roost [the chickens]₁.
- c. *Likely t₁ to have come home to roost though [the chickens]₁ were, ...
- (75)a. Gwen claims [Tony's heart]₁ is in the right place (*and it₁ is in the right place).
- b. *Gwen may have believed t₁ be in the right place and Nora certainly did believe t₁ to be in the right place [Tony's heart]₁.
- c. *How likely t₁ to be in the right place was [Tony's heart]₁?
- (76)a. [Cold water]₁ was thrown on your idea (*but it₁ wasn't thrown on my idea).
- b. *Dana may believe t₁ to have been thrown on your idea and she certainly believes t₁ to have been thrown on my idea [cold water]₁.
- c. *Likely t₁ to have been thrown on his idea though [cold water]₁ was, ...
- (77)a. Myra believes [the early bird]₁ gets the worm (*but it₁ doesn't get the worm).
- b. *Myra believes t₁ to get the worm [the early bird]₁.
- c. *How likely t₁ to get the worm is [the early bird]₁?
- (78)a. [The rug]₁ was pulled out from under him (*but it₁ wasn't pulled out from under me).
- b. *Andrea believes t₁ to have been pulled out from under him [the rug]₁.
- c. *Likely t₁ to have been pulled out from under him though [the rug]₁ is, ...

I must leave it to the reader to determine that entirely parallel data can be found for such further expressions as those in (79):

- (79)a. The ball is in your court.
- b. A stitch in time saves nine.
- c. All hell broke loose.
- d. A good time was had by all.
- e. The fat is in the fire.
- f. The cat has his tongue.
- g. The lovebug bit Tony.
- h. The shoe is on the other foot.
- i. Fortune smiled on Gwendolyn.
- j. The bottom fell out of the cocoa market.
- k. The buck stops here.
- l. The jury is still out on that proposal.

- m. The shit hit the fan.
- n. The jig is up.
- o. The party is over.
- p. The good times are about to roll.
- q. The worm is going to turn.
- r. The tide is turning.
- s. All the ducks are in line.
- t. The truth will out. Murder will out
- u. The wind has gone out of his sails.
- v. The fox is in the chicken coop.
- w. The wolf is at the door.
- x. The ice was broken at the party.
- y. The devil alone knows who did this.
- z. His number is up.
- z1 Miriam's ship came in.
- z2 A pall fell over the gathering.
- z3 The baby was thrown out with the bathwater.
- z4 Close tabs were kept on her movements.
- z5 Unfair advantage was taken of his good nature.
- z6 Stan's goose is cooked.
- z7 Churchill's shoes will be difficult to fill.
- z8 Strings were pulled.
- z9 That filthy habit was finally kicked.
- z10 Simone's hair stood on end.
- z11 The shoe is on the other foot.
- z12 The ceiling caved in on Mike.
- z13 A damper was put on the evening by Tony's announcement.

So far then, the idiomatic and proverbial expression data just seem to instantiate multiple further instances of antipronominal contexts, all of which bar raising to object and raising to subject under the same conditions already uncovered for other types of antipronominal context. All these data thus initially appear

only to strengthen the support for a principle like (48) forcing resumptive pronouns in certain but only certain instances of raising.

However, a range of partially different data involving the same idiomatic and proverbial expressions may call this conclusion into question. It can be illustrated by the facts in (80).

(80)a. He kept close tabs on her movements.

b. *He believes t_1 to have been kept on her movements [very close tabs]₁.

c. *Ted may have believed t_1 to have been kept on her movements and Fred does believe t_1 to have been kept on her movements [very close tabs]₁.

d. *He kept t_1 on her movements [very close tabs]₁.

Hitherto, the data given relevant to the interaction of idiomatic DPs and Complex DP Shift or Right Node Raising was only of the types in (80b, c), where the phrase extracted to the right is a *raisee*. But (80d) illustrates something which turns out to be equally systematically true, namely (81):

(81) No idiomatic/proverbial DP_x can be the extractee for Complex DP Shift or Right Node Raising even when DP_x is *not* a raisee.

Further supporting evidence for (81) is given in (82):

(82)a. Helen let the cat out of the bag.

b. Helen let t_1 out of the bag [the cat]₁ (ok literal/*idiomatic).

c. Helen threw cold water on Ted's face/idea.

d. Helen threw t_1 on Ted's face/*idea [cold water]₁.

e. Helen pulled the rug out from under Ted.

f. Helen pulled t_1 out from under Ted [the rug]₁. (ok literal/*idiomatic)

g. No one can fill Ted's shoes in this organization.

h. *No one can fill t_1 in this organization [Ted's shoes]₁.

i. Helen threw the baby out with the bath water.

j. Helen threw out the baby with the bath water.

k. *Helen threw t_1 out with the bath water [the baby]₁.

The potential problem that generalization (81) raises is this. If there is no way to reduce it to principle (48), then some *other* principle must block the bad cases of (80) and (82). And this principle could then arguably be invoked also for the idiomatic data which seems to support (48), like (80b, c), undermining *some* of the support for (48).

And so far I see no way to reduce (81) to (48), or any way to guarantee that the bad cases of (82) would contain resumptive pronouns in the slots which are arguably antipronominal. For the key to guaranteeing their presence in earlier cases, was to invoke conditions under which raisings are required to link to resumptives, and in (82), there are, arguably, no raisings.

Moreover, there is a second class of data involving idiomatic expressions illustrated by in (83):

- (83)a. They said she threw cold water on his head and she did throw it on his head.
b. *They said she threw cold water on his idea and she did throw it on his idea.
c. ?They said cold water was thrown on his head and cold water was.
d. *They said cold water was thrown on his idea and cold water was.
e. They said cold water was thrown on his head it was thrown on his head.
f. *They said cold water was thrown on his idea and it was thrown on his idea.
g. They said cold water was thrown on his head and it was.
h. They said cold water was thrown on his idea and it was.

It seems that most idiomatic DPs which can appear as subjects reveal a pattern like that seen in (83f, h). While the subject is antipronominal when another piece of the idiom is present in the surface form, the position allows a weak pronoun when no piece of the idiom appears there. Now one might generalize these observations by suggesting that there is a principle for idioms composed of multiple lexical pieces something along the lines of (84):

(84) The Multiple Lexical Item Idiom Condition

If a multiple membered set of lexical items *K* forms an idiom, and one member of *K* has a visible surface realization, then every other member of *K* must have a surface realization and all these surface realizations

form a c-command chain (most accurately, one involving a version of c-command which ignores prepositions, as in Pesetsky (1995: 172-3); see e.g. (82i, j)).

Such a principle cannot only block data like (83f, h), it also blocks the bad instances of (82) under the well-established assumption that the DP victim of Complex DP Shift ends up in a structure something like (85):

(85) [[Verb, X, t_i , Y] + DP_i]

The problem then is that (84) not only covers the cases of idiomatic blockages which (48) might, it also covers those where (48) is irrelevant. (84) thus seems to undermine any support for the earlier analysis *drawn from the idiomatic domain*. This does not, of course, yield grounds for rejecting the overall analysis, but it does weaken its factual support somewhat.

Notice that (84) properly is consistent with pieces of idioms being passivized DPs or DPs which raise under the construction in (55)/(58) or under object raising, for in these cases, a c-command chain is maintained. Similarly, (84) is also consistent with pre- or post- particle word order for idiomatic DPs, as in (82i, j).

Section 8 An Earlier Proposal

One should compare the present proposal with that of Lasnik and Saito (1992), with which it shares key properties but also key differences.

(86)a. *How likely t_i to be a riot is there_i?

b. There is likely to be a riot.

(87)a. *How likely t_i to be taken of John is [advantage]_i?

b. Advantage is likely to be taken of John.

(88)a. How likely t_i to win is [John]_i.

b. John is likely to win.

Recall that these authors proposed to account for (86a), (87a) and related data via principle (67), requiring that a trace be bound (hence c-commanded) by its antecedent, 'throughout a derivation'. As these authors note, (67) raises a problem for standard GB analyses of a case like (66a), repeated as (89):

(89) How likely t to win is John?

For (67) determines that (66a) cannot actually have structure (89), in which the trace would *not* be c-commanded by John at S-structure. Lasnik and Saito then propose that traditional raising to subject structures like (66b) have dual analyses along the lines of (90a, b):

(90)a. John is likely *t* to win.

b. John is likely PRO to win.

Example (66a) can then be taken to instantiate (91b), which satisfies principle (67), and not the blocked (91a):

(91)a. How likely *t* to win is John?

b. How likely PRO to win is John?

In these terms, Lasnik and Saito (1992) claim that (86a) and (87a) are ill-formed because of the known general failure (but see (68b)) of e.g. expletives like there and idiomatic NPs like advantage to function as controllers, that is, immediate antecedents of PRO structures, giving data like (92):

(92)a. *There tried PRO to be a riot.

b. *Advantage wants PRO to be taken of John.

Similarities with the view I have advocated here are thus clear, in that Lasnik and Saito also invoked a type of control. But unlike my proposal, which involves controlled resumptive pronouns, theirs involves the non-resumptive pronoun PRO, in effect first introduced in Postal (1970) as a pronoun with a Doom feature.

However, explication of the deviance of (86a) and (87a) via principle (67) and the proposal that traditional raising structures actually have dual movement/control analyses were certainly not tenable claims in Lasnik and Saito's terms. Unless buttressed by unknown and unstated additions, the proposals block many perfectly grammatical structures. Most strikingly, Lasnik and Saito's analysis undermines the adequacy of GB and more generally, transformational movement/trace analyses of passives, which they nonetheless endorsed; see page 127. For under the standard analysis, (93a, b) violate (67) as much as e.g. (89) does.

(93)a. Shocked *t*₁ by the revelations though (they claim that) [Arthur]₁ was, ...

b. They said [he]₁ would be eaten by the shark and eaten *t*₁ by the shark (I suspect that) [he]₁ was.

To maintain (67), Lasnik and Saito would thus have to provide dual analyses for passives, with the novel analysis not involving an object position trace. In this case, PRO cannot provide the second analysis since, as the authors stress (1992: 130), they maintain the earlier GB idea that PRO cannot be governed. So (94b) is not a possible analysis for (94a).

(94)a. He was eaten by the shark.

b. He was eaten PRO by the shark.

It remains entirely obscure what, if any, analysis distinct from the standard trace one they actually maintained Lasnik and Saito could give for passives so as to allow cases like (93).

The problem just raised for principle (67) as the basis of the subject raising data I have gone over is, evidently, not inherently linked to passives. Clearly it arises in any case where there is the possibility of the left-extraction of a constituent containing what in GB terms would have to be a subject trace. If, as has often been proposed, middles, unaccusatives, etc., are of this type, then (95a,b) for example pose the same difficulty that (94a,b) do:

(95)a. They said [the convertible]_i handled well and handle t_i well (I am sure that) [it]_i did.

b. They said that [that]_i would happen and happen t_i (they claim that) [it]_i did.

A distinct problem for Lasnik and Saito's proposal is, of course, that it has no way to account for the antipronominal context data. Recall that the crucial point there was that raisings can either involve resumptive pronouns or not, and violations ensue in antipronominal contexts only under those circumstances where such pronouns are *forced*. Consider (96):

(96)a. Helen believes something exactly like that/*it to have been the matter with the transmission.

b. Helen believes something exactly like that/it to have been harmful to the transmission.

c. *Helen believes t_i to have been the matter with the transmission [something exactly like that]_i.

d. Helen believes t_i to have been harmful to the transmission [something exactly like that]_i.

There is nothing in Lasnik and Saito's proposal which accounts for contrasts like (96c, d), nothing to link this contrast to the pronoun contrast between (96a, b). Even if in some unknown way they could force PRO in (96c), that would not suffice to block the example; for unlike the expletive and idiomatic data they dealt with, a DP like the pivot in (96a) is a perfectly happy controller of what they would have to take as PRO, as in (97):

(97) [Something very grave]₁ can go wrong on one day without PRO₁ going wrong on another day.

Moreover, they would have no way to account for (98):

(98) *[Something very grave]₁ can be wrong with one car without PRO being wrong with another.

In present terms, (98) is of course bad because control involves pronouns, and the controlled subject of be wrong with (but not that of go wrong) is an antipronominal context.

Return to Lasnik and Saito's claim that raising to subject structures have dual analyses and that e.g. (91a) can have a structure like (91b). This is dubious on the basis of the two novel tests for the control/raising distinction introduced in section 5.3 of Chapter 2. Recall that it was argued that control complements cannot be middles and cannot be the sort of stock (price) designating metonymy structures represented by company names. These constraints yield control/raising contrasts like:

(99)a. Control: *Uruguayan police want to bribe cheaply.

b. Raising: Uruguayan police seem to bribe cheaply.

c. Control: *Microsoft wanted to go up.

d. Raising: Microsoft seemed to go up.

These factors independently distinguish what are differentiated as raising (that is, trace in Lasnik and Saito's terms) versus control (PRO) structures in GB terms.

If these usages are good tests for the raising/control distinction, Lasnik and Saito's principle (67) account of (91) would then predict that there can be no left extracted cases parallel to (91) with middles or the 'stock' usage in question, since that for them must instantiate PRO and not trace. But the facts are otherwise, as (100) and (101) show:

(100)a. How likely t_1 to go up is [Microsoft]₁?

b. They said Microsoft was likely to go up and likely t_1 to go up [Microsoft]₁ still is.

c. Likely t_1 to go up though [Microsoft]₁ is, ...

(101)a. How likely t_1 to bribe cheaply are [Uruguayan police]₁?

b. They said Uruguayan police were likely to bribe cheaply and likely t_1 to bribe cheaply [Uruguayan police]₁ still are.

c. Likely t_1 to bribe cheaply though [Uruguayan police]₁ are,...

Section 9 A Speculation

Before concluding this chapter, so far restricted to facts from English, I would like to make one rather speculative suggestion of crosslinguistic relevance. There are a number of NLs, including Swedish and the West African languages Vata and Yoruba, which manifest an interesting property linked to resumptive pronouns. For the facts in the latter, see Carstens (1985a, 1985b), Koopman (1982, 1984), Koopman and Sportiche (1982/3, 1986) and Stahlke (1974). I will limit my remarks to Swedish. Engdahl and Ejerhed (1982), Zaenen and Maling (1982), Engdahl (1985, 1986) and others observe that Swedish, in contrast to English and even to other Scandinavian languages, does not permit gap-yielding extraction of the subject of an embedded clause with lexical material preceding the subject. Rather, a visible resumptive pronoun must appear, as in the minimal pair in (102):

(102)= Zaenen and Maling's (1982) (5a, b)

Vem₁ undrade alla om * t_1 /han₁ skulle komma i tid?

Who₁ wondered all if null₁/he₁ would come on time

"Who did everyone wonder if he would come on time"

Let us refer to resumptive pronouns of this sort as β -resumptive pronouns.

The relevant works reveal that β -resumptive pronouns like that in the good version of (102) have a number of characteristic properties, specifically they cannot alternate with epithets, can participate in across-the-board extractions as if they were gaps, can serve as the licensing gaps for parasitic gaps and do not suppress weak crossover effects, a property which has been noted to be associated with a range of resumptive pronouns by May (1985), Cinque (1990), Lasnik and Stowell (1991) and Postal (1993c). Moreover, β -resumptive pronouns only appear as subjects. In all these respects, β -resumptive pronouns seem to contrast with other Swedish resumptive pronouns and to behave essentially like ordinary extraction gaps, that is, they behave as if they were not there.

The analysis of the puzzling restrictions on English Complex DP Shift and Right Node Raising in connection with raising of subjects out of antipronominal contexts, namely, one involving conditional determination of resumptive pronouns by the raising not the extractions, suggest the possibility of a parallel

account of Swedish β -resumptive pronouns. Namely, suppose structures like (102) involve ordinary subject extractions yielding ordinary gaps, while the resumptive pronouns are determined conditionally by some kind of raising associated only with subjects. The rule would then be that the raising in question yields a β -resumptive pronoun if and only if the raisee is extracted.

To make this work, it would be necessary to regard the preverbal subject position as one involving raising, which is not today all that controversial. However, clauses containing Swedish β -resumptive pronouns would have to involve two raisings, first of the non-resumptive subject, subsequently extracted, and also raising of the β -resumptive. This issue does not arise in the English cases I have discussed because in these the resumptives are invisible. Working out the needed analysis of Swedish is then not without problems but does not seem beyond feasibility.

Section 10 Conclusion

I conclude by briefly making four points. *First*, I believe I have given a new and solid argument for raising to object analyses based on shared properties of raising to object and uncontroversial raising to subject cases. The argument depends on principle (48), which conditionally determines the presence of resumptive pronouns in raising cases, accounting for gaps in both types of raising paradigms where subject antipronominal contexts are found.

Second, the discussion has strengthened the evidence for the recognition of invisible pronouns in Topicalization, Cleft, object raising, object deletion and P-gap structures by showing that this assumption plays a key role in accounting for the special type of constraints which are the topic of this essay.

Third, while there are similarities between what is suggested here and the proposal of Lasnik and Saito (1992), the present proposal has been argued to have several clear advantages.

Fourth, of considerable theoretical significance is the nature of the constraint found to link the requirement of a resumptive pronoun for raisings to phenomena which bring it about that the raisee follows the raising constituent remnant. While such a constraint is easily stated in a framework of nongenerative, statement-based description appealing to a view of sentences as built of arcs and their relations, as in (i) of note 2, the condition would have what I earlier called a ‘non-derivational’, ‘non-cyclic’ character if one attempted to express it internal to a proof-theoretic/derivational view of grammars. Put simply, in the latter terms, one

would have to say that the choice of whether a resumptive pronoun is required in the complement is determined nondeterministically by whether those grammatical phenomena which determine the form of the main clause yield a word order in which the remnant precedes the raisee, or not. This yields a sort of necessary ‘look-ahead’ feature. If the claim that proof-theoretic operations must apply in a cyclic fashion, often taken to be an important principle, have content, ‘look-ahead’ requiring derivations should be impossible. Cases like those central to this chapter therefore seem to be clear counterexamples and represent by themselves a sharp challenge to such ideas.⁶

Notes to Chapter 3

1 See Lasnik and Saito (1991), Lasnik (1999a, b) for some revisionist thinking in the tradition which formerly *rejected* raising to object analyses.

2 To make this claim concrete, one can give an account in the Metagraph framework of Johnson and Postal (1980), Postal (1990a, 1992, 1996) and Chapter 1, Section 9 along the following lines. Assume that the R(elational)-Signs of arcs defining Complex DP Shift and Right Node Raising belong to a class characterized as {R-extract}. Then one could say that the principle at work in cases like e.g. (28c) is essentially:

(i) If A is a 2-arc type I foreign successor of a 1-arc, B, and a foreign predecessor of an {R-extract}-arc, then B is copied (that is, replaced by a copy arc).

Since all replacers have the same R-sign as the arcs they replace, (i) guarantees the presence of a 1-arc replacer of the 1-arc, B, which defines the origin of the raising. For (i) to cover both the raising to object cases and the raising to subject cases discussed later, one needs to assume that raising to subject involves raising to 2 with subsequent advancement to 1, an idea often considered independently in the relational literature; see Perlmutter and Postal (1983a: 68-69).

3 While positing (invisible) resumptive pronouns in a subset of English raising cases might seem somewhat radical, the idea is not new. As discussed in Pullum (1976), Grinder (1972) proposed that raising to subject always involved such a pronoun, although his motivations for this claim, involving issues of transformations applying cyclically or not, are entirely distinct from present concerns.

4 A straightforward interpretation of (48) as a universal claim makes predictions about NLs like Niuean; see Seiter (1980, 1983), Massam (2001). Niuean appears to have raising of both subjects and direct objects

to both subject and direct object. Interpretation of condition (48bi) as a universal would then entail that in the direct object raising cases, resumptive pronouns are present. No evidence for this is currently available and the predicted resumptive pronouns would have to be forced to be invisible.

5 The reason for the inability of the work at issue to analyze cases like (52) and (54) in terms of raising involves claims that movement out of tensed clauses (setting aside the role of previous movement to the Comp constituent or its Specifier) is impossible. This view dates to Chomsky's (1973) Tensed S Condition but has always been maintained in successive systems despite radical revisions, replacements, and additions; see Chomsky (1986a: 176-179), Culicover (1997: 104-106.).

6 Recent statements of the purported central role of cyclic application include:

(i) Chomsky (1999: 9)

“Derivation is assumed to be strictly cyclic, but with the phase level of the cycle playing a special role.”

(ii) Chomsky (2001: 4)

“Assume that all three components are cyclic, a very natural optimality requirement and fairly conventional.”

The claim that rules apply cyclically links to the key question of whether NLs are properly described via generative/proof-theoretic rules. If, as I suggest they are not, the question of rules applying cyclically simply cannot arise, for the question of their applying cannot. For then, the rules of NL grammars, being statements, not analogs of computer program subparts, are not operations. Thus the issue of how/when/at what stage rules apply can no more arise for NL grammars than it can, for example, for the axioms of set theory or for Peano's Axioms. Whether grammars are generative/proof theoretic or non-generative/model-theoretic and whether this question has been begged in the generative literature are treated in Chapters 6 and 13.