Skeptical Linguistic Essays
Chapter 2   A Putatively Banned Type of Raising

Section 1 Background

Syntacticians are a notoriously argumentative lot given to (sometimes) acrimonious disputes and few if any syntactic conclusions have achieved uniform endorsement. One might therefore assume that a point on which a broad consensus of syntactic opinion *has* been reached is one which can be accorded some confidence.   Notable then is that during the 1980s and 1990s proponents of the three most widely appealed to contemporary views of NL syntax, that is, the government binding (GB), lexical-functional grammar (LFG) and head driven phrase structure grammar (HPSG) frameworks, all came to a common conclusion. Namely, although as a consequence of very different principles internal to each of these views, a certain type of syntactic *raising* was taken to be impossible. One might be tempted then to infer that this conclusion is now a well-established fact of NL syntax.   In the framework of skeptical essays, however, caution is evidently in order.

Postal (1974: 363 note 7) mentioned a class of English complement cases of the type:

(1) You can depend on *him* to do something decent

noting that they were likely part of a larger paradigm involving also the verbs bet (on), bank (on), count (on), rely (on). It was claimed that the highlighted DP in (1) was a superficial main clause constituent but an underlying complement subject, hence one raised into the main clause. A similar view was stated in Emonds (1976: 77). Assuming that on + him in (1) forms a PP, a point to which I return, the suggested analysis would then instantiate what might be called *raising to complement of P* (RCP).   Now precisely what the three views mentioned at the outset are agreed on is:

(2) RCP does not exist in NL.

If so, then the analysis of (1) must involve some distinct type of constructional features. However, the burden of this chapter is that RCP, rightly understood, is the factually supported analysis of a number of English cases like (1) and others as well. If so, it is necessary to gaze at no NL more exotic than English to determine that the agreed upon theoretical conclusion is *wrong*.

The background of the question at issue in this chapter was nicely described in the following:

(3) McCloskey (1984: 441-442)

"The relationship- syntactic and/or semantic- that holds between the matrix subject position and the null position marked by _ in an English example like (1) has been the source of much productive theorizing in the tradition of generative grammar:

(1) Pascal appears _ to be playing well tonight

It was in an attempt to elucidate the central properties of this relationship that the transformation of Subject (to Subject) Raising was first proposed (Rosenbaum 1967, Kiparsky & Kiparsky 1971, Postal 1974). It is with this 'Raising relationship' that I will be concerned in this paper, though in a different language- Modern Irish."

McCloskey then focused the issue more sharply:

(4) McCloskey (1984: 441-442)

"The dispute I will be concerned with is that concerning the range of positions to which a complement subject may legally be Raised. What is the range of possible target-positions or host-positions for Raising? It seems to be uncontroversial that NP's may be Raised to subject position. Raising to Object is widely believed to figure in the analysis of English examples such as those in (2):

(2)a. The Press believes Mrs. Thatcher to be on the point of calling an election.

   b. I consider Spassky to have been the greatest player of his era."

"What I want to argue here is that the range of permissible options is in fact broader than this summary would suggest, that Raising to (a certain restricted subset of) prepositional object positions also exists. I will argue that the standard criteria for identifying Raising constructions suggest that there is a fairly large group of predicates in Irish that govern Raising, and that the Raised NP appears in a prepositional object position in the matrix clause."

McCloskey had thus raised the issue of the viability of a ban on RCCP almost twenty years ago, but had done so on the basis of data external to English. In fact, as reiterated in Joseph (1990: 262), Joseph (1979) had still earlier attested an apparent case of RCCP in Greek. Joseph (1990) argues in detail for the correctness of such an interpretation.

Section 2 The LFG Claim about RCP

The earliest statement I am aware of explicitly *rejecting* the existence of RCP on theoretical grounds is part of the LFG view:

(5) Bresnan (1982b: 348)

"A further generalization of control follows from this theory. Recall that in lexically induced functional control relations, OBL$_\theta$ cannot be a controller. Since the oblique functions are marked by prepositions in English (Bresnan 1979), it follows that prepositional objects cannot be lexically induced functional controllers in English. The following examples were previously given to illustrate this point.

(69)a. I presented it to John *dead.*

   b. *1 presented John with it *dead.*

There are apparent counterexamples to this generalization, such as (70a,b):

(70)a. Louise signaled to Ted to follow her.

   b. Mary relies on John to dress himself.

However, these are either cases of anaphoric control or cases of Verb-Preposition Incorporation (V-P Incorporation; see chapter 1). For example, the fact that we find *Louise signaled* to *Ted for him to follow her,* in which the subject is a lexically expressed NP, indicates that the complement of *signal* must be anaphorically, not functionally, controlled in (70a). As for *rely on*, it is subject to the rule of V-P Incorporation, which produces the two lexical forms shown in (71).

Figure 5.15
Verb-Preposition Incorporation

a.   S   b.   S

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        NP      VP                                NP              VP


              V        PP


                    P      NP                            V        NP

Mary relies   on    John                    Mary   relies  on   John
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(71)

a. [rely]V,   (↑PRED) = 'RELY-ON<(SUBJ)(OBL$_{ON}$)>'

b. [rely on]V,   (↑PRED) = 'RELY-ON<(SUBJ)(OBJ)>'

The verb with lexical form (71a) is inserted into the structure shown in figure 5.15a; the verb with lexical form (71b) is inserted into the structure 5.15b.

In the structure shown in figure 5.15a, *on John* is a constituent, while in the structure shown in figure 5.15b, it is not. Moreover, *John* is an OBL in figure 5.15a, but an OBJ in figure 5.15b. The former structure accounts for the impossibility of *It is on John that Mary relies*, in which the constituent *on John* is clefted; the latter structure accounts for *John is relied on by Mary*, in which *John* as an OBJ has passivized (chapter 1). The theory of control adopted here predicts that functional control of a complement to *rely on* should be possible only when the preposition is incorporated in the verb as in figure 5.15b. Hence, if the functionally controlled complement is present, *on John* must fail to form a constituent. This explains the contrast between (72a) and (72b) and the possibility of (72c).

(72)a. *It is on John that Mary relies to dress himself.

  b. It is John that Mary relies on to dress himself.

   c. John is relied on by Mary to dress himself."

In Bresnan's LFG terms, 'functional control' is extensionally equivalent to the union of raising and control

structures in most other syntactic approaches. The difference between raising and control is claimed to reduce to different functional identifications. So (Kaplan and Bresnan, 1982: 229): "The wider class of raising verbs differs from equi verbs in just this respect. Thus, the lexical entry for PERSUADE maps the *baby* f-structure in (108) into argument positions of both PERSUADE and GO. The OBJ of the raising verb *expected*, however, is an argument only of the complement's predicate, as stipulated in the lexical entry (112)."

The relevant claim of Bresnan's (5) is then that the position of functional controller, that is, the position ordinarily taken to be the target of raising, cannot bear an Oblique relation. And since in English it is claimed that all DPs which are complements of PPs bear Oblique relations, the result that RCP cannot exist in English is predicted.

With respect to a case like her (70b), Bresnan assumed that, while it was a case of functional control of the nonraising type, this would not violate the stated constraints on the latter because such cases were claimed, on one analysis, to involve so-called V-P Incorporation, roughly, what is called 'reanalysis' in other frameworks. According to this view, Bresnan's (70b) would involve a reanalyzed structure in which there is no PP, but rather a direct object. That is, in more standard terminology, Bresnan (1982) was claiming that cases like her (70b) did involve raising of the complement subject into the main clause, as in the raising analysis of Postal (1974) for cases like (6):

(6)a. Arabella believed six to be a larger number than eight.
   b. Arabella proved six to be a larger number than eight.
The difference between Bresnan's (70b) and (6) was, essentially, only that the former involved a verb manifesting V-P Incorporation. But in both types of case the raised phrase (functional controller) is a main clause object and not at any level of analysis internal to a PP.

Moreover, Bresnan gave one argument for her V-P Incorporation view, namely, that it explained the badness of her (72a), since on the V-P Incorporation structure, on + DP would not be a constituent and thus expectably not capable of being the focus of a cleft construction.

However, this argument is undermined by a number of facts, including several parallel to some invoked in Baltin and Postal (1996) as part of a general critique of reanalysis. In particular, while Bresnan claimed that if the functionally controlled complement (the infinitive) was present, on + DP fail to form a constituent,

one finds a range of examples like (7) which are inexplicable under that view.

(7)a. They were relying, it now appears/without any good reason/despite doubts, on the fifth division to cover their retreat.

   b. They were relying foolishly or at least naively on the fifth division to cover their retreat.

   c. They were relying on one division to cover their left flank and *on* another division to cover their right flank.

   d. They were relying not on the fifth division (to cover their retreat) but *on* the sixth division to cover their advance.

   e. One unit relied on the fifth division to cover the advance, the other *on* the sixth division to cover the retreat.

   f. They were relying on the fifth division or *on* the sixth division to come to their aid.

   g. Although they didn't rely on fifth division to cover their flank, they did *on* the sixth division.

   h. Napoli (1993: 363)

      On whom did you depend to make the arrangements?

It would clearly not be serious to regard the unique P <u>on</u> in (7a, b) as having incorporated into the verb and even less feasible to regard the (highlighted) second instances of P <u>on</u> in (7c, d, e, f, g) as having done so. Moreover, example (7h) indicates that for some speakers even the sort of extraction restrictions represented by Bresnan's (72a), which she took to argue for a type of reanalysis, are not found (for at least some extractions).

Moreover, observe the contrast in (8):

(8)a. Ernestine had chastised Lewis during the meeting.

   b. Ernestine had chastised during the meeting - the guy who was opposed to her position.

   c. Ernestine had proved that guy to be an imposter.

   d. Ernestine had proved to be an imposter - the guy who was opposed to her position.

   e. Ernestine had counted/depended/relied on that guy to support you.

   f. *Ernestine had counted/depended/relied on to support you - the guy who was opposed to her position.

That is, the pivot in the clearer raising to object case (8c) can feed the Complex DP Shift phenomenon, like the uncontroversial object in (8a). But the pivot in (8e) cannot. If the pivot, e.g. <u>that guy</u> in (8e) is inside a

PP, the ill-formedness of (8f) follows from the independently motivated principle, known since Ross (1967/1986) that the Complex NP Shift phenomenon cannot strand prepositions. But if (8e) had a non-PP analysis of the sort entailed by Bresnan's reanalysis/P-incorporation view, and were really parallel to (8c), the ill-formedness of (8f) would remain unexplained.

The facts gone over then mean that the grounds for the ill-formedness of Bresnan's (72a) must be sought elsewhere. [1] Overall then, Bresnan's proposed universal constraint on functional control combines with her assumption that the cases in her (70b)/(72) involve functional control to just give the wrong answer for English, providing no viable analysis for paradigms like her (70b)/(72), which include cases like (7) and (8e, f). [2]

Section 3 The HPSG Claim about RCP

Both major statements of the HPSG framework so far, Pollard and Sag (1987, 1994) explicitly reject the existence of RCP:

(9)a. Pollard and Sag (1987: 20)

"The existence of a syntactic dependency associated with raising explains otherwise mysterious fact that there are no raising verbs with PP controller analogous to PP-controlled equi verbs like *appeal,* for no PP can unify with the NP subject SUBCAT element of the verbal complement:

  (27) Kim appealed to Sandy *to be optimistic. (PP* object control)"

  b. Pollard and Sag (1994: 139)

"In English, there is somewhat sparser evidence for the sharing of syntactic information in raising constructions. One suggestive piece of evidence, however, is the well-known fact that in English PP objects may be equi controllers, not raising controllers. That is, there are object equi verbs like *appeal,* whose infinitive complement's subject is interpreted on the basis of the object of the prepositional phrase, as in (115):

(115) Kim appealed to Sandy to cooperate.

But there are no analogous object raising verbs, that is, no verbs whose PP complement is not assigned a semantic role. We find no verbs otherwise like the raising verb *believe* that take PP complements whose prepositional object is a raising controller. Thus there are no verbs in English like the hypothetical *kekieve* in the following examples:

(116)a Kim kekieved to there to be some misunderstanding about these issues.

b. Lee kekieved from it to bother Kim that they resigned."

Where Bresnan's LFG claim barring RCP involved a constraint on so-called functional controllers, Pollard and Sag's also purely theory-based rejection depends on the HPSG framework property that unification is not possible for a PP and the NP/DP subject SUBCAT element of verbal complements. This framework-internal theoretical difference aside, Pollard and Sag's remarks add nothing to the *evidence* for the position assuming the nonexistence of RCP attempted by Bresnan since they merely assert that the relevant cases do not exist. They made no attempt to analyze e.g. the potential counterexamples suggested in Postal (1974: 363 n7), one of which was taken up by Bresnan. The lack of factual support offered is not obscured by their discourse which refers to the putative non-existence of RCP as a 'mysterious fact', a 'well-known fact', and even as a piece of evidence for a theoretical conclusion. Since, unlike Bresnan (1982), Pollard and Sag seem to grant that the raised phrases are parts of PPs and since they preclude an RCP analysis, their HPSG analysis would have to take the <u>rely on</u> and similar cases as instances of *control* in the ordinary sense. I will return to the factual viability of such a view. [3]

Section 4 The GB Claim about RCP

McCloskey (1984) specifically proposed to argue for the existence of RCP in Irish, against the background of the fact that this was clearly barred by GB framework assumptions, for reasons spelled out in detail as follows:

(10)a. McCloskey (1984: 444-445)

"Chomsky (1981) argues for a certain view of the interaction between the notions of subcategorization, of thematic role assignment (θ-role assignment) and the Projection Principle, which has the effect of radically restricting the range of variation in Raising constructions which the theory leads us to expect. One part of the theory of θ-role assignment (the θ-criterion) requires that no expression bear more than one θ-role. Movement from one position which is assigned a θ-role to another such position would result in the moved category being assigned two θ-roles- one from its original position, and one from the position to which it is moved. Therefore movement from a θ-position (a position assigned a θ-role) is possible only if the target of the movement is not a θ-position. It is assumed moreover, within the GB framework, that

subcategorization implies θ-marking- that is, that a verb assigns a θ-role to each position in VP for which it is subcategorized. It follows, of course, that movement to a subcategorized position will always give rise to a violation of the θ-criterion and is thus illegitimate. More generally, there can be no movement to any position within VP (Chomsky 1981, p. 46), since other assumptions within the framework in 445 question imply that movement to non-subcategorized positions within VP would also give rise to violations of the θ-criterion."

   b. McCloskey (1984: 445)

"This combination of assumptions is linked to a much more general principle-the Projection Principle-with broader consequences. The Projection Principle holds that all levels of' syntactic' representation (D-structure, S-structure and LF) are isomorphic and reflect directly the thematic and subcategorizational properties of lexical items. Raising to a position within VP would violate this principle, because Raising verbs take only clausal complements at LF as a lexical property, but analyses which include Raising to a position within VP, need to provide these verbs with an extra complement NP at D-structure (where it would be empty) and at S-structure (where it would be filled by the Raised NP). Such analyses then imply a mismatch within VP between the properties of this group of verbs at LF on the one hand, and at D-and S-structure on the other."

Having stated clearly how and why the GB system precluded inter alia RCP, McCloskey went on to argue that Irish in fact allowed RCP in certain cases, a claim challenged in Stowell (1989). I will not be concerned with this Irish-internal issue here (see Postal, 1986b).   The present argument is that any collection of principles barring RCP can be shown to be incorrect merely on the basis of English facts, moreover, facts which are rather different in form from those McCloskey and Stowell treated. [4]

Section 5 The English Class: bank/bet/count/depend/rely + on + Infinitive

5.1 Remarks

My goal is thus to argue that RCP is instantiated in English. As in Postal (1974), I refer to the DP whose status is at stake in the issue of whether a particular case involves raising or control (or something distinct) as the *pivot* DP. In the present cases, the pivot is then a PP object.

The clearest evidence of English RCP involves the verbs listed in the heading of this section, hereafter the *on verbs*. [5] The reasons are as follows. First, as already touched on in Section 2, the relevant class of infinitival structures actually involves PPs. These are fairly evidently main clause constituents. So consider:

(11)a. One can count on the ex-president *with a high degree of confidence* to lie on most public occasions.

b. They were depending on the monster, *apparently*, to rush back into the cave.

c. Most staff members were relying on the director *in a touchingly naïve way* to do the right thing.

In each case, the highlighted modifier is (can be) understood to modify the predicate of the main clause. This makes it implausible in the extreme to regard e.g. on the director in a touchingly naïve way to do the right thing to be a complement clause or even a constituent. This conclusion is supported by the fact that such sequences cannot be the foci of pseudocleft or Right Node Raising constructions:

(12)a. *What most staff members were counting was on the director (in a touchingly naïve way) to do the right thing.

b. *Many managers may have been relying and some workers were certainly relying ~ on the director (in a touchingly naïve way) to do the right thing.

Second, the PP complement in on verb cases like (11) is evidently understood as the subject of the infinitival constituent. There are then two standard conceptualizations of such facts. One can either invoke some kind of raising, or posit a control relation between an unraised main clause (PP) object constituent and the complement subject, taken e.g. to be some sort of invisible element. In effect, under the raising view, the putatively raised phrase is a syntactic but not a semantic constituent of the main clause, while under the control from main clause object view it is both. Acceptance of the raising view in the on verb case of course grants the claim of the present investigation. Therefore, it seems that to reject that, one must adopt a control view of cases like (11), as implied in the Pollard and Sag (1987, 1994) materials quoted earlier. To justify the present position, it then largely suffices to show that a control analysis of on verb structures is not viable.

5.2 Traditional Raising/Control Differentia

There are of course a number of *traditional* criteria which argue that a pivot is *not* a controller and thus, if one accepts that the only alternative is a raising analysis, that it is a raisee. These criteria hold of the least controversial instances of raising, those where the pivot ends up as the subject of a nonpassive, as with verbs like appear/seem/turn out or adjectives like bound/certain/likely, etc. The first relevant property is that a controller is normally involved with selections in the main clause, as well as in the complement. Lack of any selectional restrictions with respect to the main clause is then an argument against controller status.

Notably then, the PP objects of <u>on</u> verbs at issue do not seem to be selected in the main clause and are extremely free. They can be animate or inanimate, human or non-human, count or mass, abstract or concrete:

(13)a. One can't depend on that gorilla to behave himself.

    b. I depended on my car to start in the winter.

    c. I depended on the nurse to watch over my uncle.

    d. I depended on the alarm to go off at the right time.

    e. I depended on the carrots to peel rapidly.

    f. I depended on the soup to cook properly.

    g. I depended on her understanding to be sufficiently sharp for the job.

    h. Michael relied on that algorithm to properly sort people into friends and enemies.

This situation contrasts with that of an uncontroversial object control type pivot such as the object of e.g. <u>convince</u>, which must, modulo personification, of course be animate:

(14)a. One can't convince that gorilla to behave himself.

    b. *I convinced my car to start in the winter.

    c. I convinced the nurse to watch over my uncle.

    d. *I convinced the alarm to go off at the right time.

    e. *I convinced the carrots to peel rapidly.

    f. *I convinced the soup to cook properly.

    g. *I convinced her understanding to be sufficiently sharp for the job.

    h. *Michael convinced that algorithm to properly sort people into friends and enemies.

The contrasts between (13) and (14) roughly parallel those between the uncontroversial raising structures with <u>seem</u>/<u>likely</u> and the uncontroversial control structures with <u>want</u>/<u>hope</u>, etc.

Second, related to the selectional facts just cited is that control structures are in general incompatible with the possibility of a pivot being an *expletive*. In uncontroversial raising and control cases, this yields well-known contrasts like:

(15)a. There are likely to be spies in the class.

    b. *There want to be spies in the class.

(16)a. It is likely to be evident that the bomb will not be found.

    b. *It wants to be evident that the bomb will not be found.

(17)a. It is likely to sleet.

b. *It wants to sleet.

(18)a. It is likely to be astounding, the number of people who choose to eat snails.

b. *It wants to be astounding, the number of people who choose to eat snails.

Significantly then, many, though not all, expletives are possible as the PP objects with <u>on</u> verbs, but none are possible with e.g. <u>convince</u>:

(19)a. *Amanda counted/depended/relied on there to be spies in the class

b. Amanda relied on it to be evident that the bomb would not be found.

c. Amanda depended/relied on it not to sleet.

d. Amanda banked on it to be astounding, the number of people who chose to eat snails.

(20)a. *Amanda convinced there to be spies in the class.

b. *Amanda convinced it to be evident that bomb would not be found.

c. *Amanda convinced it not to sleet.

d. *Amanda convinced it to be astounding, the number of people who chose to eat snails.

This evidence too supports the non-controller status of the PP objects; the fact that expletive <u>there</u> is not always possible where 'expected' does not really undermine this conclusion, since it is easily seen that there are a host of special constraints on <u>there</u> even in clear noncontrol and probable raising cases, such as:

(21)a. Herbert made it rain/be possible to travel to other galaxies.

b. *Herbert made there be a riot.

(22)a. Herbert watched it rain/get dark/become impossible to get a drink after 11pm.

b. *Herbert watched there be an investigation of his father.

(23)a. Herbert considered it likely to be impossible to square that circle.

b. *Herbert considered there likely to be a runoff election.

Moreover, even the more restricted expletive <u>there</u> is *sometimes* possible in <u>on</u> verb infinitives:

(24)a. Don't count on there to be that many supporters in the organization.

b. She should not have depended on there to be as much resistance as she hoped.

c. It is never a good idea to rely on there to be more favorable opinions than unfavorable ones.

d. We can't depend on *there* to be enough beer to keep all the students happy.

I am not sure about what picks out that subclass of <u>on</u> verb environments which *allow* expletive <u>there</u>, but it

seems to have something to do with the complement representing a specification of *quantity*.

A third traditionally cited argument against the controller status of a pivot position (and hence in favor of its raisee status) is that raising structures fairly freely allow restricted DPs, e.g. idiom chunks, whereas the control cases mostly do not. [6]   So there are well-known idiom chunk contrasts like:

(25)a. Close tabs were kept/*placed/*maintained on her movements.

    b. They believe close tabs to have been kept/*placed/*maintained on her movements.

    c. *They convinced close tabs to be kept/placed/maintained on her movements.

     d. ?They were counting/depending/relying on close tabs to be kept/*placed/maintained on her movements.

     e. ?Close tabs were being counted/depended/relied on to be kept/*placed/*maintained on her movements.

(26)a. The shit hit/*struck/*collided with the fan (The * notation here indicates lack of idiomatic meaning = 'something bad happen')

    b. They believe the shit to have hit the fan yesterday.

    c. *They convinced the shit to hit the fan yesterday.

    d. They were counting/depending/relying on the shit to hit the fan when the new director arrived.

    e. The shit can be counted/depended/relied on to hit the fan at that time.

(27)a. That finally broke/*crushed/*smashed the ice at the meeting (* = lack of idiomatic meaning = "initial interpersonal tensions were dissolved"

    b. The ice was finally broken/*crushed/*smashed.

    c. *They convinced the ice to finally be broken.

    d. They were counting/depending/relying on the ice to finally be broken.

    e. ?The ice can't be counted/depended/relied on to finally be broken.

(28)a. Her ship/*boat finally came/*floated in (= "she received the life-improving lucky break").

    b. Her ship is likely to come/*float in.

    c. They believed her ship to have finally come/*floated in.

    d. You can't count/depend/rely on your ship to come/*float in just when you want it to.

(29)a. The lovebug bit/*clawed/*grabbed Marsha. (= "Marsha fell in love")

    b. The lovebug seems to have bitten/*clawed/*grabbed Marsha.

    c. It is a mistake to believe the lovebug to have bitten/*clawed/*grabbed Marsha.

    d. It is a mistake to count/depend/rely on the lovebug to bite/*claw/*grab Marsha in time.

(30)a. *Her ship wants to come/float in.

    b. *They convinced her ship to come in.

(31)a. *The lovebug wants to bite Marsha.

    b. *They convinced the lovebug to bite Marsha.

(32)a. All hell brook loose/*broke up/*broke down.

    b. All hell seems to have broken loose/*up/*down.

    c. It is a mistake to believe all hell to have broken loose/*up/*down.

    d. You can count/depend/rely on all hell to break loose/*up/*down at that time.

That is, the <u>on</u> verb + PP object + infinitive cases behave like the uncontroversial raising cases with <u>seem</u>/<u>likely</u>/<u>believe</u>, not like uncontroversial control cases.

5.3 Non-Traditional Raising/Control Differentia

There are several infinitival characteristics *not* standardly cited which, I believe, systematically differentiate raising and control structures. One involves the property originally taken in Postal (1970) to be characteristic of control structures, namely, that the controlled complement has an invisible (weak definite) *pronominal* subject. [7] This then theoretically differentiates such complements from those of raising structures in which, in the general case, the complement subject simply is the main clause pivot DP, which, of course, need not be a pronoun. [8] Therefore, this theoretical difference would in principle permit factual differentiation of the two structures in specific cases if one could find independent grammatical features which reveal the presence or absence of (invisible) weak definite pronouns.

A feature of this type which I have made much of in other contexts, involves what I have called *antipronominal contexts*, those which reject the presence of weak definite pronouns. [9] If one finds a context, in this case, in particular an antipronominal subject context, then the theoretical distinction between raising and control complements in the terms of Postal (1970) would lead one to expect (33):

(33) Whereas, modulo note 7, a raising complement should be indifferent to whether its subject position is antipronominal, a control structure should be ungrammatical when the complement subject position is antipronominal.

Unfortunately, I have not found many subject positions which are antipronominal, rendering the task of

testing (33) rather difficult. Still there are some. Two include the subject positions of be the matter/wrong with:

(34)a. Something/That/Lots of things are the matter with my transmission.

b. Something$_1$ is the matter with my transmission but that sort of thing/*it$_1$ is not the matter with his.

c. That kind of thing/Nothing is wrong with her values.

d. *He said something$_1$ was wrong with her values and it$_1$ is wrong with them.

Given that the subject positions of be the matter with and be wrong with appear to be antipronominal, one can test (33) with uncontroversial raising and control cases.

Significantly then, one observes first that such contexts do not combine with clear control structures:

(35)a. (Its) Being common doesn't mean that that problem/something/anything is serious.

b. *(Its) Being the matter with my transmission doesn't mean that something/anything is serious.

 c. *Something/Lots of things can be the matter with your transmission without being the matter with mine.

(36)a. (Its) Being harmful may indicate that something is detectable.

b. *(Its) Being wrong with your liver may not mean something is detectable.

c. *That can be detectable without being wrong with your liver.

And equally clearly, they do combine with a variety of clear raising structures:

(37)a. Something/Lots of things/Nothing seem(s) to be the matter with your transmission.

b. Many things are likely to be the matter with your transmission.

c. What they proved to be the matter with your transmission is not serious.

(38)a. Did that appear to be wrong with Mike's liver?

b. Such a thing is bound to be wrong with someone's liver.

c. They didn't believe anything to be the matter with her liver.

Against this background, it is thus possible to test whether the behavior of the on verb structures resembles those of clear control cases or those of clear raising cases:

(39)a. You can count on that not to be the matter with your transmission.

 b. He wasn't depending on anything of the sort to be the matter with the enemy's missile defense system.

c. We can't rely on that many things/all those things to be wrong with their intelligence network.

The evidence then shows that the infinitival complements of _on_ verb structures behave like the uncontroversial raising cases and contrast with the uncontroversial control forms.

A second non-traditional way of testing the difference between raising and control cases relates to the possibility of the complement representing a _middle_ structure, which, I suggest, is subject to condition (40):

(40) A control complement cannot be a middle clause.

It is apparent that this divides up uncontroversial cases properly:

(41)a. Harry bribed Uruguayan police.

    b. Uruguayan police bribe cheaply/easily.

    c. Uruguayan police seem/are likely to bribe cheaply/easily.

    d. *Uruguayan police hope/try/want to bribe cheaply/easily.

    e. *Bribing cheaply/easily pleases Uruguayan police.

    f. Hugh proved Uruguayan police to bribe easily/cheaply.

    g. *Hugh persuaded Uruguayan police to bribe easily/cheaply.

    h. *Some policemen can be poor without bribing easily.

    i. *Uruguayan policemen often apologize to foreigners for not bribing cheaply.

(42)a. They frightened the wimp.

    b. Certain wimps frighten easily.

    c. Certain wimps seem/are likely to frighten easily.

    d. *Certain wimps don't try/want to frighten easily.

    e. *Frightening easily worries certain wimps.

    f. They proved certain wimps to frighten easily.

    g. *They persuaded certain wimps to frighten easily.

    h. *Good soldiers can be inexperienced without frightening easily.

(43)a. They sold the beer easily.

    b. Such beer sells easily.

    c. *Selling easily made that sort of beer expensive.

    d. *That kind of beer can be cheap without selling easily.

Note too clear correlations like:

(44)a. They prevented there from being a riot.

    b. They prevented Uruguayan police from bribing cheaply.

    c. *They discouraged there from being a riot.

    d. *They discouraged Uruguayan police from bribing cheaply.

That is, traditionally <u>prevent</u> is analyzed as inducing raising (to object) (see Postal, 1974: 154-163; Postal and Pullum, 1988: 655-657), supported by the expletive object of (44a), which analysis is then consistent with (40) given the grammatical middle complement of (44b). On the contrary, <u>discourage</u>, which as (44c) illustrates, precludes expletive objects, and is traditionally taken to induce control, allows no middle complement, as (44d) indicates.

Significantly then, the infinitival complements of <u>on</u> verbs can be middles:

(45)a. Hugh was counting/depending/relying on Uruguayan police to bribe easily/cheaply.

    b. They counted on/depended on/relied on certain wimps to frighten easily.

    c. She was counting on that sort of beer to sell easily.

These data thus also support the view that <u>on</u> verb structures are of the raising not the control type.

The argument from middle distribution in favor of a raising analysis of <u>on</u> verb infinitival structures can be a bit strengthened as follows. The facts with the <u>on</u> verb instances of middle infinitives with pivot DPs inside PPs contrast with other pivot instances inside PPs, that is, with real control cases, which are ungrammatical, as (40) specifies:

(46)a. *The president appealed to/proposed to/suggested to Uruguayan police to bribe cheaply.

    b. *The president pleaded with Uruguayan police to bribe cheaply.

One potential problem with the argument for a raising analysis of <u>on</u> verb cases based on principle (40) has been pointed out to me by Idan Landau (personal communication of 7/16/2000). He observed that the infinitive in the case of the infinitival complements of the main verbs <u>claim</u> and <u>pretend</u> *can* be a middle, providing examples (47a, b), to which I add others:

(47)a Linguists usually claim to discourage easily.

    b. Many linguists pretend to discourage easily.

    c. Uruguayan police claim not to bribe cheaply.

    d. Uruguayan police pretend to bribe cheaply.

I agree that these are fine. If, as usually assumed, these are control cases, they obviously falsify (40), raising then the issue of why the other control cases are bad. Idan Landau offered the suggestion that the right generalization takes account of the fact that (47a, b), unlike typical control cases, involve complements which *represent propositions*. One must then consider an alternative to hypothesis (40) of the form:

(48) An infinitival or gerundive complement which is nonpropositional cannot be a middle.

Differentiating the factual viability of this generalization, which would not help differentiate raising and control structures, from that in (40) is not so easy because most infinitives are nonpropositional. Still there are a few pretty clearly propositional ones:

(49)a. Sheldon demonstrated/proved to us to know Spanish (= that he knew Spanish)

    b. Gwen swore to us to be a government agent (= that she was a government agent)

These structures are not predicted by (48) to *bar* middles, any more than (47a, b) do, while (40) claims that middles should be impossible. The latter is correct:

(50)a. *Corrupt police try to demonstrate to their clients to bribe cheaply.

    b. *Even cowards may swear to TV reporters not to frighten easily.

Further, when one looks at gerundive clauses which represent propositions, middles are also impossible as (40) specifies, while (48) would allow them to be good:

(51)a. Being a vampire (= 'that she is a vampire' = 'that it is true that she is a vampire') proves Jane not to be a vegetarian.

    b. *Bribing cheaply proves Uruguayan police to be desperate.

    c. *Frightening easily makes wimps unreliable.

    d. *Rattling so easily makes a TV announcer appear foolish.

Moreover, observe that middles are impossible in clearly proposition-denoting controlled adjuncts:

(52)a. Uruguayan police can be corrupt (without looking guilty/*without bribing easily).

    b. Uruguayan police were criticized for being dishonest/*bribing too cheaply.

My suggestion is thus that one should accept the incompatibility of middles and control structures and therefore take the grammaticality of (47) to falsify *not (33)* but rather the traditional view that such cases are control structures. I propose instead that they are raising structures associated with the additional feature (quite exceptional in English) that the raised form, understood as bound by the main clause subject, is invisible. [10] It is not irrelevant, I think, that these verbs do take infinitival complements transparently not interpretable as control cases but easily seen as raising ones, less marginally so in the case of <u>claim</u>:

(53)a. *She claimed that to be the case.

   b. *They claimed biological weapons to be too terrible to use.

   c. *Irving pretended something to be bothering him.

   d. That, he claimed to be the case.

   e. Biological weapons, they claimed to be too terrible to use.

   f. What did they claim to be too terrible to use?

   g. What Irving pretended to be bothering him was his neighbor's drum playing.

   h. No matter what they pretend to be impossible, don't believe them.

   i. That, he may have only pretended to be the case.

While straightforward cases like (53a, b, c) are obviously ungrammatical, they arguably manifest what was called in Postal (1974: 305) the *Derived Object Constraint* (DOC). This bars certain raised objects from remaining in the standard main clause postverbal object position. But cases like (53d, e, f, g, h, i), which satisfy DOC, seem fine. Thus a consistent analysis can claim that these two verbs, not mentioned in Postal (1974), are also subject to DOC.

 Consider then:

(54)a. *Marilyn claimed herself to be intuitive.

   b. *Marilyn pretended herself to be intuitive.

These would surely be regularly ruled out by any formulation of DOC capable of blocking (53a, b, c). Suppose though, continuing to assume these are raising cases, that these two verbs allow and arguably in fact require, raised *reflexive* objects bound by their main clause subjects to be invisible. [11] This would properly differentiate:

(55)a. *Herself$_1$, Marilyn$_1$ claimed to be intuitive.

   b. Herself$_2$, Marilyn$_1$ claimed to have talked to Jane$_2$ about.

   c. *Herself$_1$, Marilyn$_1$ pretended to be intuitive.

d. Herself$_2$, Marilyn$_1$ pretended to have talked to Jane$_2$ about.

A further bit of evidence that the infinitival complements of the verb <u>claim</u> are raising not control structures is that they permit the same type of passives as less controversial raising inducers such as <u>believe</u> and <u>prove</u>.

(56)a. The gorilla was claimed/believed by Austin to be telepathic.

b. Such things are often claimed/proved by scientists to be dangerous.

c. That program was claimed to have been written in Cobol.

d. It was claimed to have been hidden from the people that he was a werewolf.

e. *It was pretended to be the case.

f. *That was pretended to be impossible.

There is clearly no way to regard such <u>claim</u> cases, which, it should be observed, satisfy DOC, as control structures, since uncontroversial instances of the latter cannot correspond to such passives:

(57)a. Herb hopes/longs/tries to be brave/help the handicapped.

b. *Those people are hoped/longed/tried by Karen to be brave

Left open of course is why the putative raising complement of <u>pretend</u> does not permit passivization, a question not directly relevant to present concerns.

A virtue of an obligatory *reflexive* deletion view of what I am arguing are raising cases like (53d, e, f, g, h) is that it is consistent with the fact that such cases are *understood de se,* a systematic feature of true control structures. [12]   This might seem to argue against a raising analysis but does not if the latter is limited, as here suggested for these cases, to reflexive structures, which also are well-known to have the de se requirement; see Higginbotham (1992: 87).   That is, with respect to *that* feature, the following pairs do not differ:

(58)a. Glen expects himself to win the first match.

b. Glen expects to win the first match. [13]

c. Glenda wants herself to develop better muscle tone.

d. Glenda wants to develop better muscle tone.

A third poorly known property distinguishing control from raising cases involves certain metonymous stock

(price) structures.

(59) Microsoft went up.

In this case, a company name DP appears as a subject with certain predicates but is understood to refer to the stock of that company, in turn to the price of the stock of that company. So (59) is equivalent to (60a) in turn equivalent to (60b):

(60)a. Microsoft stock went up/down/dropped/rose (in price).

    b. The price of Microsoft stock went up/down/dropped/rose.

Now, relevantly, the usage in (59) does *not* interact freely with complement types and for uncontroversial cases, a generalization *initially* statable as (61) holds:

(61) The 'stock' usage of company name DPs like that in (59) is not possible in control structures.

This generalization is supported by data like:

(62)a. Microsoft seems/is likely to have gone up.

    b. They proved Microsoft to have gone up.

    c. *Microsoft hopes/plans/tried/wants to go up.

    d. *Going up pleased Microsoft.

    e . *They persuaded Microsoft to go up.

    f. Microsoft hired Michael Downs without knowing that/*going up.

    g. Microsoft hired Michael Downs to impress the government/*go up.

    h. *Microsoft fired its chairman after going down.

    i.* Microsoft denied the story without shooting up/rising much.

And here also, the usage in question is perfectly possible in the infinitival complements of <u>on</u> verbs.

(63)a. The labor union was counting on Microsoft to go up toward the end of the year.

    b. No one should depend on Enron to go down/drop any further.

    c. I can't rely on Enron to rise this year.

So constraint (61) also argues for the raising and against a control analysis of the infinitives with <u>on</u> verbs.

It is important to dispel a possible objection to (61). Despite ill-formedness like that in (62c-i), control cases like (64) are perfectly grammatical:

(64)a. Microsoft went up today after going down yesterday.

   b. Going up yesterday did not cause Microsoft to go down today.

This shows that the initial extremely informal formulation in (61) is inadequate. However, I do not think such cases cast doubt on the reality of a control restriction on the relevant stock usage. For it is easy to see that cases like (64) differ in a specific way from the ungrammatical control structures taken to support (61). Namely, in the latter, the controller company name DP as it were stands alone in a position where in general a DP denoting stock or its price would be ungrammatical. That is, it appears in a position selecting mind-possessor denoting DPs, with companies being taken to be of that category. In (64), however, the controller is a company name DP which is itself understood to denote the stock or stock price of the relevant company.

My partially speculative suggestion is that one can give a superior replacement of (61) which allows (64a, b) as follows. Assume that the stock (price) interpretation of a company name DP simply involves a specific type of *possessor ascension* so that there is a structure for cases like (i) in which the DP <u>Microsoft</u> is the possessor of a larger DP headed by a noun meaning 'stock' and that that larger DP is in turn the possessor of one whose head noun means 'price'. Schematically then, (65a) would have a representation like (65b):

(65)a. Microsoft went up.

   b. Microsoft's$_1$ stock's$_2$ price$_3$ went up.

Now, under this three DP analysis, grammatical cases like (64a, b) are represented as (66a, b) respectively, while an ungrammatical one like (62c) is represented as (66c):

(66)a. Microsoft's$_1$ stock's$_2$ price$_3$ went up today after [it]$_3$ going down yesterday.

   b. [It's]$_3$ Going up yesterday did not cause Microsoft's$_1$ stock's$_2$ price$_3$ to go down today.

   c. *Microsoft$_1$ wants it's$_1$ stock's$_2$ price$_3$ to go up.

The key point then is that under this speculative analysis, in the ungrammatical (62c) = (66c), the controller is a company denoting DP, while in the grammatical (64a, b) = (66a, b), the controller is not a company denoting DP but one denoting price. This suggests that the right elaboration of (61) would be something like:

(67) A proper noun headed company-denoting DP cannot be the antecedent (controller or not) of a pronoun which is a (possessor ascended) company denoting DP.

I have generalized (67) beyond controllers to cover as well facts like (68):

(68)a. *Microsoft$_1$ hired Bevins because it$_1$ had gone down recently.

b. *Microsoft$_1$ claimed that it$_1$ would go up.

c. *He wants to work for Microsoft$_1$ because it$_1$ will soon go up.

Compare:

(69) Microsoft went down recently because it had gone up so much before.

As with the control cases (64a, b), (69) is good because the antecedent of the pronoun can be taken to be a larger DP containing the company name phrase, one which denotes stock price. Inter alia, (67) accounts for the lack of ambiguity of the long form of (70), whereas the short form is ambiguous.

(70) Jerome bought Microsoft$_1$ (because it$_1$ went down).

That is, the short version has readings where what is bought is the company or the stock of the company, but the long version has only the stock reading.

Another virtue of the formulation in (67) covering pronouns and reflexives is that it can account for the fact that the stock usage in question does not seem acceptable with the verbs <u>claim</u> and <u>pretend</u>, argued above to involve raising not control:

(71)a. *Microsoft claims to have gone up.

 b. *Microsoft pretended to drop.

Given the earlier proposal that <u>claim</u>/<u>pretend</u> infinitival structures involve invisible raised *reflexives* bound by the subject, what is wrong with (71a, b) is that they violate the same constraint seen in (72):

(72)a. *Microsoft$_1$ claimed that that was the case after it$_1$ went up.

b. *Harry wants to work for Microsoft$_1$ because it$_1$ is going to go way up.

c. *Microsoft believes itself to have gone up.

That is, very roughly, it does not seem possible for a pronominal form, reflexive or not, designating the stock or price of the stock of a company to be anteced by a DP designating that company. That is, given the formulation in (67), cases like (72) are blocked under either a control or raising analysis.

Just as was remarked a propos of constraint (40), support for (67) is also increased when it is observed that clear instances of control involving pivots internal to PPs contrast with <u>on</u> verb cases like (63):

(73)a. *The president appealed to/proposed to/suggested to Microsoft to go up.

b. *The president pleaded with Microsoft to go up.

It must be stressed that the English grammatical constraint here reconstructed as (67) can *not* be understood in general semantic terms. What I mean can be indicated with respect to (74):

(74) *Microsoft intends to go up.

It might occur to some to suggest that what is wrong with such a case is that there is a semantic clash between the controller, a DP denoting a company, and the controlee, which designates a stock or its price. But it can be shown beyond serious doubt that this is not the relevant factor. This is possible because a variety of other metonymy cases with the same semantic clash property characteristic of the stock cases *are grammatical*. Here are two:

(75)a. I am parked on twenty sixth street (= "my car is parked on twenty sixth street").

   b. I didn't want/intend to be parked on twenty sixth street.

(76)a. That pitcher is hard to hit (= "That baseball pitcher's pitches are hard to hit").

   b. That pitcher wants/intends to be hard to hit.

In (75b) the controller denotes a person but the controlled form denotes a vehicle; in (76b), the controller also denotes a person but the controlled form denotes (baseball) pitches. Hence it is clear that there is no general principle requiring some sort of semantic matching which could fail in the stock case. Consequently, one must appeal to a construction-specific constraint for the latter such as (67).

A fourth property which distinguishes uncontroversial control and raising structures from each other but which is not part of the traditional battery of tests for the distinction is called *partial control* in Landau (2000, 2002). This is the phenomenon seen in cases like:

(77)a. *The director met at noon.

   b. The director wants to meet at noon.

(78)a. *I got together yesterday.

   b. I wanted to get together yesterday.

That is, with intransitive verbs normally requiring a plural or conjoined subject, like <u>meet</u>, <u>get together</u>, <u>join together</u>, <u>divorce</u>, etc., it is possible to find cases where they occur as the heads of infinitival complements of what are universally analyzed as control structures *where the controller is a singular*. Taking these complements to have invisible subjects, the interpretation then is that the denotation of the controller is understood to be (only) one element of the set denoted by the invisible subject, the others being unspecified.

The relevance of this phenomenon, treated in detail in Landau (2000), is that, as he states clearly, *it is impossible in uncontroversial raising cases*:

(79)a. *Myron$_1$ seems [ ]$_{1,...n}$ to have met at noon.

    b. *Myron$_1$ is likely [ ]$_{1,...n}$ to get together tomorrow.

    c. *I believe Myron$_1$ [ ]$_{1,...n}$ to have met at noon.

    d. *They proved Myron$_1$ [ ]$_{1,...n}$ to have gotten together at that time.

    e. *The prevented Myron$_1$ from [ ]$_{1,...n}$ getting together at that time.

Testing then how the PP structures occurring with <u>on</u> verb infinitivals behave with respect to partial control, one finds that they fall together with the uncontroversial raising cases and contrast with control cases:

(80)a. *I can't count on Myron$_1$ [ ]$_{1,...n}$ to get together when we want to.

    b. Myron$_1$ refused [ ]$_{1,...n}$ to get together when I wanted to.

(81)a. *One shouldn't depend on Myron$_1$ [ ]$_{1,...n}$ to meet at all.

    b. Myron$_1$ hoped [ ]$_{1,...n}$ to meet before the demonstration.

(82)a. *They were relying on Myron$_1$ [ ]$_{1,...n}$ to get together after the party.

    b. Myron$_1$ worried about [ ]$_{1,...n}$ getting together without her.

Here also then the evidence supports the raising character of <u>on</u> verb infinitival structures not a control analysis. [14]

As with the earlier arguments, this support for a raising analysis of <u>on</u> verb infinitives can be broadened by again noting the contrast with clear control cases having pivots internal to PPs. So compare (80)-(82) with:

(83)a. Carla appealed to/proposed to/suggested to Larry$_1$ [ ]$_{1,...n}$ (not) to meet without her.

    b. Carla pleaded with Larry$_1$ [ ]$_{1,...n}$ not to meet without her.

An evident implication of the combination of the view that partial control is impossible in raising structures with my claims that the verbs <u>claim</u> and <u>pretend</u> occurring with infinitival complements represent raising not control structures is that partial control should be *impossible* in forms like e.g. (84).

(84)a. *The department chairman$_1$ claims [ ]$_{1, ...n}$ to have gotten together/met yesterday.

b. *The department chairman$_1$ pretended [ ]$_{1, ...n}$ to meet yesterday.

I find these to indeed be ungrammatical. However, Landau (2002) cites the following as grammatical:

(85) The chair$_1$ claimed [ ]$_{1, ...n}$ to be gathering once a week.

But I find (85) if anything even worse than (84a).

One way, perhaps, to sharpen the issue is to note that the control view, which would take (85) to be good, predicts a clear *difference* in such sets as:

(86)a. *The department chairman$_1$ claimed [ ]$_{1, ...n}$ to have gotten together last week.

b. *The department chairman$_1$ was claimed [ ]$_{1, ...n}$ to have gotten together last week.

c. *The department chairman$_1$, they claimed [ ]$_{1, ...n}$ to have gotten together last week.

Since it is clear that the latter two examples cannot involve control but must be raising structures, for me all three should be undifferentiated, which is how I judge them.

5.4 A Problematic Type of Restriction

While the evidence cited so far seems to fairly relentlessly support the raising nature of <u>on</u> verb infinitival complements and disconfirm any view that they involve control structures, one set of facts might seem to raise difficulties. It was suggested in Rosenbaum (1967) that an effective test for the raising/control distinction is the way the two types of cases interact semantically with passivization. When all relevant DPs are definite referential expressions, active and passive are semantically (truth functionally) equivalent.

(87)a. Glen tickled Betty

b. Betty was tickled by Glen.

That is, one of these can represent a true assertion if and only if the other does. When such passives interact with clear raising/control structures though, equivalence is found only in the former:

(88)a. Glen seems to have defended Betty =

b. Betty seems to have been defended by Glen. =

c. It seems that Glen defended Betty.

d. Glen wants to defend Betty ≠

e. Betty wants to be defended by Glen.

The same story holds for the object cases like:

(89)a. Stan expects Glen to defend Betty. =

b. Stan expects Betty to be defended by Glen.

c. Stan persuaded Glen to defend Betty ≠

d. Stan persuaded Betty to be defended by Glen.

The equivalence between (88a, b) would follow from the simple passive equivalence if the meaning of the (88a) case were that of the full <u>that</u> clause case, that is, if the pivot NP in the (88a) case with <u>seem</u> played no semantic role. By parity of reasoning then, the structure of the (88d) case should be different and in particular should be such that the pivot NP *does* play a semantic role in the main clause. For then the non-equivalent passives will involve two different NPs in the main clause, and that is how they differ semantically. That is, in (88c) the sentence is about a want of Glen's, but in (88d) about a want of Betty's.

According to this reasoning then, equivalence under passivization is a test for raising structures. Attempting to apply this idea to <u>on</u> verb cases, one finds however:

(90)a. Stan was counting/depending/relying on Glen to defend Betty

b. ?*Stan was counting/depending/relying on Betty to be defended by Glen.

The first point is that whereas (90a) are normal sentences, (90b) seem unacceptable. Second, cutting through the obscurity determined by their ungrammatical status, (90b) do not seem equivalent to the corresponding cases of (90a).   Roughly, the latter seem to indicate that the focus of the 'reliance' is on the entity denoted by the raised DP <u>Betty</u>, while the former indicate that the focus is on the entity denoted by the raised DP <u>Glen</u>. This state of affairs is not consistent with what Rosenbaum dealt with.   Now, encounters with instances of this problem are of long date:

(91) Postal (1974: 363-364)

"An interesting set of cases relevant to assumption linkage involves a set of verbal elements with the form Verb + *on*, including *bet on*, *depend on*, *bank on*, *count on*, *rely on*. Consider *depend on*. This occurs with both gerundive and infinitival complements:

(i)a. You can depend on him to do something decent.

  b. You can depend on him doing something decent.

                          his

I should like to argue that sentences like (i)a are, in fact, derived by Raising. However, examples like (i)a and (i)b are not strict paraphrases. Compare the following:

(ii)a. ?You can depend on that corpse to remain here for another hour.

  b. You can depend on that corpse's remaining here for another hour.

It seems clear again that the putative Raising examples entail the analogous unraised examples, but not conversely. That is, there seems to be an assumption linked with Raising application for *depend on*. Roughly

this is that the dependable state of affairs is so because of the will(s) of the entities designated by the raised NPs. Hence (ii)a is anomalous because corpses have no wills, etc. Since it is easy to show that the post-*on* NP with infinitival complements in such cases is a main clause constituent, the alternative to a Raising analysis would involve distinct underlying structure types for the a and. b examples in such pairs, a highly unsatisfactory account. I think that these verbal examples with *on* should thus provide a fruitful domain for studying the interaction between Raising application and particular linked semantic assumptions."

These remarks were made internal to a section which discussed a number of cases putatively involving cases where raising was associated with particular semantic assumptions. I cannot claim to understand much more about these matters than when I wrote the above. However, if it is accepted that such linkages of raising with implicatures are a real phenomenon, then the facts in (90) would not really bear on the fundamental issue of these remarks, which is the existence of RCP and its support from <u>on</u> verb structures.

Significantly then, I argued a bit in the above cited section that even uncontroversial raising structures can reveal the kind of linked semantic assumption seemingly found with <u>on</u> verbs taking infinitives. So compare:

(92)a. Joseph Stalin seemed to me to be an evil monster.

    b. It seemed to me that Joseph Stalin was an evil monster.

For someone like me, who had the good fortune to never encounter Mr. Stalin, use of an example like (92a) is strange. The reason, I think, is that raising with this experiential verb is associated with the implicature that the entity denoted by the verb's logical subject (here <u>me</u>) has had some direct experience of the entity (if any) denoted by the raised DP. On the contrary, (92b), which involves no raising and hence no implicature is neutral and usable by anyone, regardless of their experience with Mr. Stalin. Since cases with <u>seem</u> are, though, the archetype of generally accepted raising structures, it would follow that the implicature linkage is not an indication of the nonexistence of raising, hence not an argument for e.g. a control analysis.

Taking that as the case, there is no reason to think that facts like (90) attack the present view that the <u>on</u> verb structures are instances of raising, not of control. Still, there is a mystery in (90b) beyond the mere facts of implicature linkage, namely, why the anomaly. This contrasts, for example, with <u>seem</u> structures:

(93)a. Stan seemed to Glenda to have defended Betty

    b. Betty seemed to Glenda to have been defended by Glen.

Here the b. example in no way seems anomalous. Not really understanding the nature of the implicatures linked to the raising cases, I can do no better than speculate that the difference lies in the nature of the linked assumptions. In the <u>on</u> verb cases, I suspect, as already speculated almost thirty years ago, that the assumptions involve reference to the will of the entity denoted by the raised DP, while this is not the case in the <u>seem</u> assumption. If so, then possibly what is wrong with (90b) is that the state of affairs denoted by a passive is normally not attributable to the will of the entity denoted by the subject of the passive, even if there is such an entity and it has a will.

In any case, I suggest that while the <u>on</u> verb cases do not provide a perfect model of the situation Rosenbaum (1967) took to be a diagnostic for raising, neither do other cases of the sort which are almost uniformly taken to be raising cases. Hence I do not believe the implicature facts bear negatively on the conclusions of this chapter.

Section 6 The Structure of RCP Cases

The mere recognition of the existence of a raising analysis for cases like (94) leaves many questions about the relevant structures open.
(94) Winston counted/depended/relied on Isabelle to do the taxes.

In particular, despite what has been argued here, there is in the proper terms, no reason to think that the raising involved in RCP actually involves anything which is accurately described as raising to the object position of a P.

Although the claim just made might seem paradoxical, in relational terms, as already discussed in Postal (1986b), Joseph (1990), it is not. In relational terms, raising itself means (i) that a constituent which heads an arc, say A, in a subordinate constituent (here, an infinitival clause) also heads at least one arc, say B, in the main clause and that (ii) in a specifiable sense, arc B's status depends on A. In the framework of Johnson and Postal (1980), Postal (1990a, 1992, 1996), briefly sketched in Chapter 1, Section 9, which recognizes the primitive relations between arcs called Sponsor and Erase, these conditions can be taken to mean that A sponsors arc B, which erases arc A; technically then, B is a type I *foreign successor* of A.

In such terms then, the reason why the raised DP ends up internal to a PP has to do with the relation that the raisee ends up bearing in the main clause. Simply put, that relation, call it R^{10}, can be taken to be one

which in English, unlike e.g. the core relations 1 (subject), 2 (direct object), 3 (indirect object), requires the PP structure. There are then two possibilities. The most attractive, I believe, is to say that the raising with on verbs is simply raising to the same status as with more standard raising to object verbs like believe, that is, to direct object, 2. This means in terms of the sketch of the previous paragraph, that B is a type I 2-arc foreign successor of A. One can then posit that on verbs obligatory require (at least certain) 2-arcs to have R^{10} arc type I local successors. It is possible and maximizes generality to assume that non-raising cases with the same verbs, like (95), then also involve R^{10} arc type I local successors of 2-arcs:

(95) Jenny counted/depended/relied on Lucy.

This means that one can take these verbs to occur with initial 2-arcs subject to the same requirement of demotion to R^{10} as holds for the raising cases. The difference is then that in (95), it is initial 2s which demote to R^{10}, while in the cases discussed throughout this chapter, it is 2s resulting from raising (to object).

Viewed from this point of view, one can easily see that any analog of principles banning RCP, principles argued here to be untenable just because of English cases like e.g. (94), would be quite strange. Such principles would merely stipulate that e.g. 2-arc foreign successors cannot have local successors with any R-sign defining a relation which must determine a PP structure. Such a principle would be strange inter alia because the notion of 'relation which must determine a PP structure' does not pick out a universally specifiable set of relations. A particular relation may define a PP structure in one NL, but not in another. The point then is that internal to the sort of arc-based ideas relevant to this section, there is no independent motivation for any principle accomplishing the work claimed to be done in LFG, HPSG and GB frameworks by the various framework-specific assumptions which putatively block RCP. But without the needed stipulations, arc-based ideas, unlike these three views, arguably will not block the sort of raising which results in RCP. This is an obvious virtue if, as argued in earlier sections RCP is instantiated in English.

While the view that cases like (94) involve raising to 2 with subsequent demotion to R^{10} is attractive, it is not required. A distinct arc-based description would simply say that with on verbs, raising is to R^{10}, that is, infinitival complement 1-arcs have type I R^{10} arc foreign successors, which then determine the PP structure. Again, if this is not possible, in such terms it is only because of apparently fairly stipulative axioms limiting the class of foreign successors of in particular 1-arcs, axioms which might exclude R^{10} arc foreign successors.

If such axioms could be justified, then the alternative just mentioned would be excluded and something like the raising to 2 with subsequent demotion to R[10] might be imposed as the only available raising analysis.

Section 7 Conclusion

While the three most widely invoked syntactic frameworks have, as shown in earlier sections, all claimed as a consequence of fairly deeply rooted principles of those frameworks that RCP cannot be a feature of an NL, it has been argued in this chapter that such a view is falsified merely by an examination of certain facts of English. Such a conclusion can then serve as a solid pillar for the fundamental claim of this work that enormous skepticism is justified with respect to current syntactic claims and conclusions.

Notes

** I am greatly indebted to Idan Landau for very helpful comments on an earlier version of this chapter. These have significantly improved the text and helped avoid some unfortunate errors. Needless to say, remaining problems are entirely the responsibility of the author.

1 The ungrammaticality of Bresnan's (72a) and other related examples like those in (ib, c) should be related to other cases of unextractable PPs, some discussed in Postal (1998: 127-129), such as those in (ii).

(i)a. *It is on John that Mary relies to dress himself.

b. *the person on whom Mary relies to dress himself

c. On which person does Mary rely to dress himself?

(ii)a. Laura made light of the death of the chimp.

b. Which chimp did Laura make light of the death of?

c. *Of which chimp did Laura make light of the death?

That is, the notion of 'unextractable PP' seems to be a feature of English. Remarkable about cases like (i) though, is that the parallel PP with the same verb(s) is extractable when no infinitive is present:

(iii)a. Mary relies on John.

b. It is on John that Mary relies.

c. the person on whom John relies

d. On which person does Mary rely the most?

2 I find no discussion of relevant cases or the overall topic in Bresnan (2001). But Kaplan and Bresnan (1995: 75) invoke the principle that led to Bresnan's original claims, that is, the principle that functional

controllers must be SUBJ, OBJ or OBJ$_\theta$ and hence not Obliques. And Dalrymple (2001: 345) appears to reiterate the same point.

3 Since, as was indicated. the LFG framework utilizes the notion of functional control for both raising and control structures, it is unclear to me how, internal to these ideas, it would be possible to reconstruct the view of Pollard and Sag (1987, 1994) that there is a contrast between the two phenomena with respect to whether the main clause pivot phrase can be the complement of a P. That is, the framework described by Bresnan (1982) should be just as incompatible with the control structure taken by Pollard and Sag to manifest in the appeal variant of (i) as with a raising structure for the rely on cases:
  (i) Herman asked/appealed to Gertrude to aid the runaway gerbils.
Here too, the only possibility would seem to be to appeal to reanalysis and to attempt to reduce appeal to to the single verb status of e.g. ask. But data like (ii) shows the untenability of such a proposal:
  (ii)a. Herman appealed repeatedly to Gertrude to aid the runaway gerbils.
    b. Herman appealed to Gertrude or to Lydia to aid the runaway gerbils.
    c. Herman appealed not to Gertrude but to Lydia to aid the runaway gerbils.
    d. Herman appealed not only to Gertrude to aid the gerbils but to Lydia to aid the mice.
     e. *Herman appealed to to aid the runaway gerbils the woman he had met at the animal protection league.

4 Stowell argues that what McCloskey (1984) took to be RCP is actually raising to subject position and that what McCloskey took to be prepositions are actually irregular (quirky) case markers. Obviously, regardless of validity of Stowell's claims for Irish, the type of approach to protecting GB ideas he was taking has no application to English on verb cases, where it is out of the question to talk about raising to subject position, filled by obvious subjects. McCloskey's cases involved intransitive/possibly impersonal verbs. This makes English cases even more important as arguments for raising. For, if they stand up, they certainly do what McCloskey's argument was intended to do without offering the target that Stowell tried to take advantage of.

5 Although, as in Postal (1974: 363-364), I list bank and bet as members of the class, I will mostly ignore them in giving examples. The reason is that I find many infinitival examples with these strained or artificial at best, for unknown reasons.

6 Some of the at least metaphorical idiom chunks do occur in control cases, as noted by Nunberg, Sag and Wasow (1994). See for instance:

  (i)a. Birds of a feather flock/*hang out/*go/*travel/*fly together.

    b. Birds of a feather intend/like/love to flock/*hang out/*go/*travel/*fly together.

    c. Old dogs can't be taught/*instructed about new tricks.

    d. Old dogs don't want to be taught/*instructed about new tricks.

Such cases are simply irrelevant to differentiating control from raising contexts, as they occur in both. So:

  (iii)a. It is easy to prove birds of a feather to flock together.

    b. It is easy to convince birds of a feather to flock together.

    c. It is impossible to depend on birds of a feather to flock together.

7 In the earliest variants of generative grammar, it was assumed that control structures involved matching NPs in the main and complement clauses and deletion of the complement NP by a rule called Equi (NP deletion); see e.g. McCawley (1971: 7, 28, 85, 161; 1981: 129, 467). So (ib) would involve a reduction of (ia):

 (i)a. Winston wants Winston to succeed.

   b. Winston wants to succeed.

This works out badly on semantic grounds for cases with nonreferential NPs, like those of (ii); see McCawley (1971: 108-109; 1981: 129):

(ii)a. Every representative wants every representative to succeed.

  b. Every representative wants to succeed.

For clearly the meaning of (iib) is not captured by a structure like (iia).

In Postal (1970) it was proposed that a controlled subject was a pronoun with a special feature, DOOM. This analysis was adopted in effect by Chomsky (1981) via his element PRO, though without attribution, as noted in Larson, Iattridou, Lahari and Higginbotham (1992: ix).

8 The situation would be a bit complicated if, as argued in Chapter 3, there are certain instances of raising which leave invisible resumptive pronouns as complement subjects, an idea with a certain historical track record; see Grinder (1972), Pullum (1976).

9 For discussion and exploitation of the notion of antipronominal context, see Postal (1993a, 1993b, 1994a, 1994b, 1998, 2000a, 2000b)

10 As observed in Kayne (1984: 112), French in general allows apparent analogs of cases like (53f) with verbs of the <u>believe</u>/<u>croire</u> semantic class. Since these verbs are subject to an analog of the constraint referred to as DOC in the text but allow extraction cases where the extracted DP would correspond to a raised object, one can suspect that the French cases have an analysis parallel to that suggested here for English <u>claim</u>.

   (i)   Kayne (1984: 111-112)

   a.   *Je reconnais Jean être le plus intelligent de tous.

        "I recognize Jean to be the most intelligent of all"

   b.   Quel garçon reconnais-tu être le plus intelligent de tous?

        "What boy do you recognize to be the most intelligent of all?

   c.   Je reconnais avoir fait une erreur.

        "I recognize to have made an error"

11 Chomsky (1977a: 190-191; 1980: 6) proposed that control structures *in general* involve reflexive phrase deletion. That hypothesis would, of course, lose the distinction stressed here between raising structures, a tiny few of which are here taken to involve reflexive deletion, and control structures. The difference is evidently key to the factual contrasts between them, e.g.:

   (i)a. Control   *Uruguayan police wish to bribe cheaply.

      b. Raising + Reflexive Deletion   Uruguayan police claim to bribe cheaply.

   (ii)a. Control   *They dissuaded Uruguayan police from bribing cheaply.

      b. Raising   They prevented Uruguayan police from bribing cheaply.

   (iii)a. Control   The director wanted to have gotten together by 10AM.

      b. Raising + Reflexive Deletion   *The director claimed to have gotten together by 10AM.

   (iv)a. Control   They dissuaded the director from meeting before 10AM.

      b. Raising   *They prevented the director from meeting before 10AM.

12 For discussions of de se interpretations, see Fodor (1975: 133-138), Chierchia (1989), Higginbotham (1992), Fiengo and May (1994), Tancredi (1997), Schlenker (1999) and Landau (2000, 2002).

13 Despite permitting clear raising structures like (ia), <u>expect</u> in structures like (ib) involves control not raising plus reflexive deletion, as argued by middle, stock and partial control facts like (ii):

(i)a. Jeremy expects Rhonda to call him.

b. Jeremy expects to call Rhonda.

(ii)a. *Uruguayan police expect to bribe cheaply.

b. *Microsoft expects to go up

d. The boss expected to have gotten together by 10AM.

14 Actually, things are more complicated than the text discussion implies. At issue are several implications:

(i) If a complement does allow partial control, it is not a raising complement. (hence is a control complement).

(ii) If a complement does not allow partial control, it is not a control complement. (hence is a raising complement).

Now, the relevant partial control data involving <u>on</u> verb complements in this chapter instantiates the conditional part of (ii), rather than that of (i). However, while Landau (1999, 2000) has argued that (i) is true, he did not assume (ii) and in fact claimed that there are three types of control complements which, like raising complements, preclude partial control.

To the extent that that is true, even a correct showing in particular that the infinitival complements of <u>on</u> verbs bar partial control does not as such justify the claim that these infinitives are raising complements. Strictly, all that is supported, even given the (I think uncontroversial) view adopted here that the raising/control distinction exhausts the domain of subjectless complements, is a disjunction of something like the form:

(iii) The infinitival complements of <u>on</u> verbs are *either* raising complements *or* some type of control complements which bar partial control.

While this initially weakens the case for a raising analysis of <u>on</u> verbs derivable from the incompatibility of their infinitival complements with partial control, it does not eliminate it, for two reasons. First, given that the other classical and new tests support a raising view of these complements, the best overall analysis will clearly choose the first disjunct of (iii). Second, Landau has argued that those control complements which nonetheless bar partial control fall into three independently existing semantically characterizable classes, which he designated as:

(iv)a. implicative verbs, e.g. <u>manage</u>

b. aspectual verbs, e.g. <u>begin</u>

c. modal verbs, e.g. <u>have to</u>

The issue is a bit clouded by the fact that there are good grounds to assume that some instances of the verbs of (ivb, c) to involve raising not control verbs. Note for instance that they allow expletive subjects, middle complements and permit the metonymous stock structures:

(v)a. There began to be opposition.

b. Uruguayan police began to bribe more cheaply/easily.

c. Microsoft began to drop.

(vi)a. There have to be some changes.

b. Uruguayan police have to bribe pretty cheaply.

c. Microsoft has to go up.

Significantly, these contrast with the implicative case:

(vii)a. *There managed to be opposition.

b. *Uruguayan police managed to bribe cheaply/easily.

c. *Microsoft managed to go up. (good only irrelevantly as personification)

Nonetheless, Landau (2000) has argued that some instances of these verbs cannot be treated as raising cases and yet their complements still resist partial control. But this turns out not to really undermine the claim that their incompatibility with partial control supports the raising character of the infinitival complements of <u>on</u> verbs. For given his assumption that there is a contrast between infinitivals as to whether they incorporate tense or not, Landau proposes:

(viii) Landau (2000)

Control verb complements allow partial control if and only if they contain tense.

Accepting (viii), disjunction (iii) immediately strengthens to:

(ix) The infinitival complements of <u>on</u> verbs are *either* raising complements *or* partial control barring *control* complements which do not have tense.

Condition (ix) greatly strengthens the case from partial control that <u>on</u> verb complements are raising structures, since the tests which Landau exhibits argue that the infinitival complements of <u>on</u> verbs are tensed. Given that, the disjunction in (ix) reduces to its first disjunct..

I conclude then that despite the complications discussed in this note, the partial control phenomenon does

contribute substantively to supporting a raising analysis of <u>on</u> verb infinitival complement structures.