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Non-restrictive relatives are not orphans[1]

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According to a 'radical orphanage' approach, non-restrictive relative clauses are not part of the syntactic representation of the sentence that contains them. It is an appealing view, and seems to capture some important properties of non-restrictive relative clauses. Focusing mainly on empirical shortcomings, this paper aims to show that the appeal of such approaches is illusory. It also outlines an empirically superior 'syntactically integrated' account.

1. Introduction

According to a 'radical orphanage' (RO) approach, non-restrictive ('appositive') relative clauses are not part of the syntactic representation of the sentence that contains them (e.g. Fabb 1990, Espinal 1991, Burton-Roberts 1999, Peterson 2004). It is an appealing view. Building on the RO approach to parenthetical expressions first proposed in Haegeman (1988), it seems to capture some important properties of non-restrictive relative clauses (NRCs), and offers an interesting account of the various grammatical differences between NRCs and restrictive relatives (RRCs).

This paper aims to show that the appeal of such an approach is illusory. The main focus will be on empirical shortcomings, based partly on data which is well-known but often ignored, and partly on data which has not previously been considered. It also outlines an empirically superior 'syntactically integrated' account. A side effect of the discussion will be to debunk a number of myths about English NRCs which have considerable currency in the literature.[2]

[1] I have benefitted from discussion of these ideas with many people. Special thanks are due to Olivier Bonami, Bob Borsley, Annabel Cormack, Anette Frank, Danièle Godard, Ruth Kempson, Bob Levine, Rudy Loock, Rachel Nordlinger, Kathleen O'Connor, Louisa Sadler, Peter Sells, Henriette de Swart, members of the Syntax Group and the Language and Computation Group at Essex, and participants of the 2004 Meeting of the Linguistics Association of Great Britain in Roehampton and the HPSG04 conference in Leuven. Two anonymous-referees also provided careful and insightful comments. Errors and unclarities are still my fault, of course.

[2] The discussion will be entirely restricted to English. I should also stress that the critique is limited to the radical orphanage approach AS APPLIED TO NRCs. I take no stand on its applicability to other phenomena (e.g. genuine parentheticals).

The paper is structured as follows. Section 2 provides background, giving an overview of relevant phenomena and existing analyses. Section 3 introduces the RO approach. Section 4 sets out its shortcomings in relation to NRCs. Section 5 outlines an empirically superior 'syntactically integrated' analysis. Section 6 provides a brief summary and conclusion.

2. Background

A basic example of an NRC is given in (1a). It is to be contrasted with a RRC such as (1b).

(1) (a) I bought the cheapest book, which was not a paperback. [NRC]
(b) I bought the cheapest book which was not a paperback. [RRC]

The most obvious difference is phonological: the NRC is a distinct intonation unit, separated from the clause that appears to contain it (what I will call the 'host' clause) by some sort of intonation break in speech, and by commas in writing. RRCs are normally integrated intonationally into the host clause, and appear without commas in modern English.[3] Semantically, NRCs are interpreted as simply adding information about a phrase – the NP *the cheapest book* in (1a) – whose interpretation is otherwise not affected (I will call this the 'antecedent' of the NRC, though strictly speaking it is the antecedent of the relative pronoun). For this reason NRCs can often be eliminated and have their content expressed by a separate clause. There is very little difference in meaning between (1a) and the following:

(2) I bought the cheapest book. It was not a paperback.

RRCs, on the other hand, are interpreted intersectively – as restricting the denotation of the associated noun. So, in (1b), the object of *bought* is understood to be the cheapest object in the intersection of 'books' and 'things which are not paperbacks'.

Presumably because of this intersective interpretation, RRCs are not possible with proper names, in their normal interpretation.[4]

[3] The phonological separation of NRCs can also be seen in the way they appear not to contribute to phonological 'heaviness':

(i) I believe to be clever anyone who has read both *PTQ* and *Aspects*. [RRC]
(ii) I believe to be clever Sandy, who has read both *PTQ* and *Aspects*. [NRC]

The badness of (ii) parallels that of **I believe to be clever Sandy*, where there is no relative clause. Kaisse (1981) notes some other phonological differences between NRCs and RRCs.

[4] In an example like *I've never spoken to a Kim who really likes her name*, *Kim* is a common noun interpreted as something like 'people called Kim'.

(3) (a) I've never spoken to Kim, who plays poker. [NRC]
(b) *I've never spoken to Kim who plays poker. [RRC]

As another effect of this semantics, RRCs often implicitly introduce a 'contrast set' into the domain of discourse, which can be accessed anaphorically by an expression like *others*, as in (4a). NRCs do not introduce such a set:

(4) (a) I like puzzles which require imagination and creativity, and others that just depend on knowledge. [RRC]
(b) #I like puzzles, which require imagination and creativity, and others that just depend on knowledge. [NRC]

(4b) is anomalous in the same way as (5), plausibly for the same reason:

(5) #I like puzzles, and others that just depend on knowledge.

In many cases, in particular when the antecedent is associated with a definite set of some kind, an NRC will produce a 'totality' interpretation. Thus, the interpretation of (6a) is that the neighbour looks after ALL of Kim's pets; (6b) is not interpreted in this way (Sells 1986).

(6) (a) Kim has three pets, which a neighbour looks after. [NRC]
(b) Kim has three pets which a neighbour looks after. [RRC]

Syntactically, NRCs are more constrained than RRCs: NRCs are required to be finite and must contain a *wh*-relative pronoun. Thus (7a) is fine, but (7b, c) with *that* or zero are bad, as are non-finite NRCs like (7d, e).[5] Notice that corresponding examples involving RRCs are okay (e.g. if *Jerusalem* is replaced by *a song* and the commas are removed):

(7) (a) 'Jerusalem,' which everyone enjoys, ended the programme.
(b) ??'Jerusalem,' that everyone enjoys, ended the programme.
(c) *'Jerusalem,' everyone enjoys, ended the programme.
(d) *'Jerusalem,' for everyone to enjoy, ended the programme.
(e) *'Jerusalem,' to make everyone happy, ended the programme.

[5] The claim that NRCs must be finite represents conventional wisdom, but there are some potential counter-examples. The following involves an imperative NRC, which is apparently non-finite:

(i) And under the vase, which be careful not to drop, you will find the keys.

Optative NRCs with what seem to be non-finite verb forms are also possible:

(ii) But what if the Queen, whom the Lord preserve, should find out?

An anonymous-referee wonders if such examples might involve a present subjunctive, and indeed such an account can be found in traditional/prescriptive grammars such as *The American heritage book of English usage* (Houghton Mifflin, Boston, 1996). It is not clear to me if such an analysis can be motivated.

Whereas RRCs attach only to nominals, NRCs are compatible with a much wider range of antecedents; (8) contains examples (the corresponding RRCs, which can be produced by removing commas and optionally replacing *which* by zero or *that*, are unacceptable).

(8) (a) Kim put it [on his back], which was the right place. (PP)
(b) Kim was [really nice], which I didn't think she would be. (AP)
(c) Kim is [a sceptic], which I am not. (predicative NP)
(d) Kim [won the race], which I didn't think she could. (VP)
(e) [Kim won the race], which was a relief. (S)

One can make intuitive sense of a great deal of this, and of much other data about the interpretation of NRCs, if one makes two plausible and relatively uncontroversial assumptions: (i) NRCs are interpreted as independent sentences – so their content is somehow separate from that of the host clause; and (ii) relative pronouns in NRCs are essentially 'normal' anaphoric pronouns.

For example, the wide range of possible antecedents for NRCs is what one would expect if the non-restrictive relative pronouns (NRPs) are normal anaphoric pronouns. Comparison of the following with the corresponding examples in (8) gives some idea (allowance must be made for the fact that no single normal pronoun has quite the same range as *which*, so some paraphrases require 'null anaphora'):

(9) (a) Kim put it on the table. It is a good place.
(b) Kim was really nice. I didn't think she would be Δ.
(c) Kim is a sceptic. I am not Δ.
(d) Kim won the race. I didn't think she could (do it/so).
(e) Kim won the race. It was a relief.

Moreover, as with normal anaphora, the antecedent of an NRP need not be a linguistic constituent: 'split' antecedents, as well as ones constructed from the preceding context, are possible:[6]

(10) (a) Kim likes muffins, but Sandy prefers scones, which they eat with jam.
(b) Then Kim started talking to her friends in Italian, which I think sounds really sexy.
(c) … data are whatever a researcher can make useful for meeting his/her research objectives, aims or problems, which is not to say that just any old thing will do. [HPU/0313]

[6] The annotation on example (10c) means that it is from the British National Corpus (BNC), file HPU, around line 313. In what follows, and in the appendix, all examples annotated in this way are from the BNC.

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In (10a) the antecedent of *which* is *muffins* and *scones* (just as the antecedent of *they* is *Kim* and *Sandy*). In (10b) the antecedent may be the non-constituent *talking … in Italian*. In (10c) the antecedent is something like 'saying …', where '…' is the content of the rest of the host sentence.

The assumption that NRCs are interpreted as independent clauses, with content separate from the host clause, explains a number of phenomena.

Taken together with the assumption that NRPs are normal pronouns, it explains the behaviour of NRCs with respect to 'contrast sets' and totality interpretations. The following are anomalous in the same way as the corresponding NRCs above (e.g. (4b)). Notice that (11b) has the same 'totality' interpretation observed in (6a).

(11) (a) I like puzzles. They require imagination and creativity. #The others …
(b) Kim has three pets. A neighbour looks after them. #The others …

As noted by McCawley (1988), VP-internal NRCs do not seem to form part of the VP for the purpose of ellipsis. Thus, where an RRC example such as (12a) is ambiguous (the elided VP may be interpreted as saying that Sandy recognised either the man who took Kim's wallet, or the man who took Sandy's wallet), the corresponding NRC (12b) is unambiguous – the content of the NRC cannot be taken as part of the ellipsis, so the second conjunct simply says that Sandy recognised the man. It is as if the NRC is absent for the purpose of resolving VP-ellipsis – as it would be if it were a separate sentence.[7]

(12) (a) Kim recognised the man who took her wallet, and so did Sandy. [RRC]
(b) Kim recognised the man, who took her wallet, and so did Sandy. [NRC]

Similarly, the content of an NRC seems to be outside the scope of sentence negation. Thus, Jackendoff (1977) claims that whereas one can focus sentence negation inside an RRC, as in (13a), it is not possible to do this with an NRC, as in (13b).

(13) (a) We didn't talk to the man who married SUSAN. [RRC]
(b) *We didn't talk to the man, who married SUSAN. [NRC]

[7] Notice that what is interesting here is not that the NRC gets the intrepretation it does – this might simply be because VP-ellipsis does not require its antecedent to be a complete constituent, so it can just 'miss out' the NRC. The interesting point is that we CANNOT get an interpretation where the NRC is part of the ellipsis (after all, VP Ellipsis presumably always ALLOWS its antecedent to be a complete unit at whatever is the relevant level of structure). It is the absence of this reading which is difficult to explain unless the NRC is somehow not a normal part of the VP.

This may also explain the contrast seen in (14) and (15):

(14) (a) Sam owns a car that has a broken windscreen. [RRC]
(b) Sam owns a car, which has a broken windscreen. [NRC]
(15) (a) Sam doesn't own a car that has a broken windscreen. [RRC]
(b) #Sam doesn't own a car, which has a broken windscreen. [NRC]

(15b) is unacceptable on its salient reading, where the indefinite is in the scope of negation.[8] This is natural if the NRC is outside the scope of sentence negation (and the relative pronoun is really pronominal), because it parallels the unacceptability of (16).

(16) *Sam doesn't own a car. It has a broken windscreen.

NRCs can also escape the scope of propositional verbs. Thus, (17b) has a reading where the proposition that linguists use the IPA does not form a part of Kim's beliefs, but instead represents an assertion by the speaker.

(17) (a) Kim believes that linguists who use the IPA are clever. [RRC]
(b) Kim believes that linguists, who use the IPA, are clever. [NRC]

NRCs appear to have their own illocutionary force (e.g. Thorne 1972, Emonds 1979, Peterson 2004, Potts 2005). For example, (18a) is a question about the subset of linguists who use the IPA, but (18b) is just a question about linguists in general, which contains the assertion (expressed by the NRC) that linguists use the IPA.

(18) (a) Are linguists who use the IPA invariably clever people? [RRC]
(b) Are linguists, who use the IPA, invariably clever people? [NRC]

Similarly, (19) is overall a question, but contains an explicit performative in the NRC, and (20) is overall a request, but the NRC has the illocutionary force of a promise.

(19) Couldn't this offer, which I hereby reluctantly accept, have been made weeks ago? [NRC]
(20) Could you possibly lend me your copy of *Aspects*, which I promise I'll return within the hour? [NRC]

NRCs seem to be able to bear 'discourse relations' to their host clause. Burton-Roberts (1999) notes the following contrast:

(21) (a) *John gets on best with those firms who therefore employ him frequently. [RRC]
(b) John gets on best with those firms, who therefore employ him frequently. [NRC]

[8] (15b) also has a less salient acceptable reading where the indefinite has wide scope, roughly: 'There is a particular/certain car that Sam does not own, which has a broken windscreen'. This does not affect the point under discussion.

The relative clause in (21b) can stand in a 'consequence' relation to the host clause ('John gets on best with those firms'). This is not possible for the RRC. This is consistent with the NRC, but not the RRC, being an independent sentence of some kind.

Finally, NRCs cannot contain 'externally licensed' Negative Polarity Items (NPIs). Thus the downwards-entailing quantifier *no one* licenses the NPI *anything* in (22a), but not in the corresponding NRC (22b). The interrogative operator in (23a)/(23b) shows the same contrast, as does sentence negation in (24a)/(24b).

(22) (a) No one who had anything to drink suffered ill effects. [RRC]
(b) *No one, who had anything to drink, suffered ill effects. [NRC]
(23) (a) Did you interview a witness who saw anything incriminating? [RRC]
(b) *Did you interview a witness, who saw anything incriminating? [NRC]
(24) (a) But of course, we didn't introduce the president to the guests that had any real opinions. [RRC]
(b) *But of course, we didn't introduce the president to the guests, who had any real opinions. [NRC]

These are not the only differences between NRCs and RRCs that have been claimed to exist. But they are the most important of the ones that bear scrutiny (the following section will point out some alleged differences which do not stand up to examination).[9]

There are broadly three approaches to the grammar of NRCs:[10]

- 'Radical orphanage' (RO) analyses. According to these analyses, NRCs are not part of the syntactic structure of the matrix clause at all, at any level of syntactic representation (e.g. Safir 1986, Fabb 1990, Espinal 1991, Burton-Roberts 1999, Peterson 2004).

[9] A genuine difference which I do not discuss is the possibility of 'epithetic NRPs', such as *which beverage* in NRCs like the following (De Vries (2006) calls them 'additional internal heads'):

(i) Kim refused a drink of beer, *which beverage* she never touches.

These are impossible in RRCs (Fabb 1990). My reason for ignoring this is that it is not a problem for the grammar of NRCs (such examples are easily handled in most approaches). The problem is to exclude the corresponding RRCs, and this should be straightforward. For example, a type-theoretic account would be that RRCs are functions from common noun denotations (type $\langle e, t \rangle$) – that is, intuitively, expressions that are lacking a common noun denotation. But the relative clause in (i) is clearly not lacking any such denotation (it is supplied by *beverage*). Hence this can only function as an NRC. Syntactic accounts on similar lines can easily be imagined.

[10] See De Vries (2002: especially chapter 6) for an excellent overview. The classification ignores analyses based on the 'raising analysis' of relatives, such as Kayne (1994). See Borsley (1997) for a critique of the raising analysis as an approach to NRCs. But at least some such analyses (e.g. De Vries 2006) should qualify as syntactically integrated.

- High Syntactic Attachment ('non-radical orphanage') analyses. According to these analyses, NRCs are attached high in the tree, to the root S or even some higher node at some syntactic level(s), e.g. at Deep Structure, or LF (e.g. Ross 1967, Emonds 1979, McCawley 1988, Demirdache 1991).
- Syntactically Integrated analyses. According to these analyses, NRCs are syntactically part of the clause that appears to contain them – typically they are analysed as adjoined to the antecedent nominal, cf. figure 2 below (e.g. Jackendoff 1977, Perzanowski 1980, Kempson 2003, Arnold 2004).

I will have nothing more to say about High Syntactic Attachment analyses here, except by implication (data that is problematic for RO analyses may also be problematic for such analyses, and arguments for an integrated analysis will often count against them). In the next section I will flesh out the RO approach, and indicate how it can provide an account of the properties of NRCs.

3. Radical orphanage approaches

This section introduces the main ideas of the RO approach, and sketches how it can account for the key properties of NRCs. I will focus on the approach of Espinal (Espinal 1991), which gives the most explicit account of radical orphanage, and then discuss points of comparison with other approaches.

The key idea of Espinal's account of what she calls 'disjunct' constituents, including NRCs, is that the grammatical structure associated with a surface string consists of a number of separate trees on separate 'planes' or 'tiers', which are related only at the most superficial level (PF) and at the level of Conceptual Structure (CS). Restricting attention to NRCs, we have a picture like figure 1 as the structure of (25). This should be contrasted with the sort of structure that would be assigned under a syntactically integrated approach, where the NRCs stand in much the same kind of relation to the rest of the host clause as would RRCs (figure 2).[11]

(25) Kim, who I knew, introduced Sandy, who I hadn't met, to me.

The planes have to intersect at the most superficial level, because of the need to produce a linear sequence of sounds. Their associated CSs must also be put together, because of the need to make some kind of coherent discourse

[11] The most obvious, and descriptively most important, disagreement among syntactically integrated approaches relates to where and how relative clauses attach – e.g. Jackendoff (1977) suggests that NRCs attach to NP while RRCs attach to $\overline{\text{N}}$, whereas e.g. Sag (1997) assumes that both attach to NP. Many analyses assume that the attachment involves adjunction, but e.g. De Vries (2006) argues that it involves a kind of coordination.

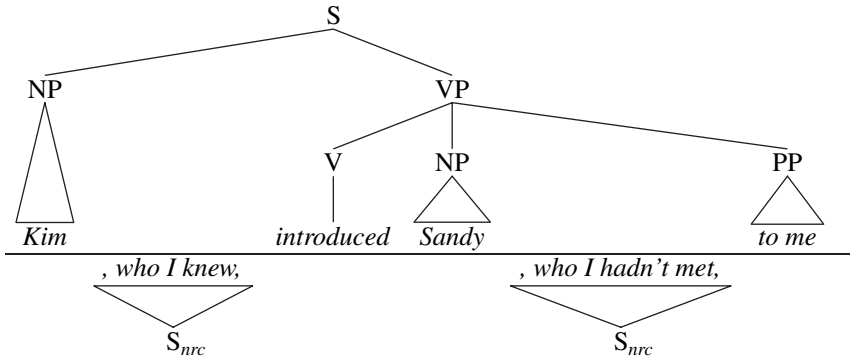

Figure 1
A radical orphanage analysis of NRCs (Espinal 1991)

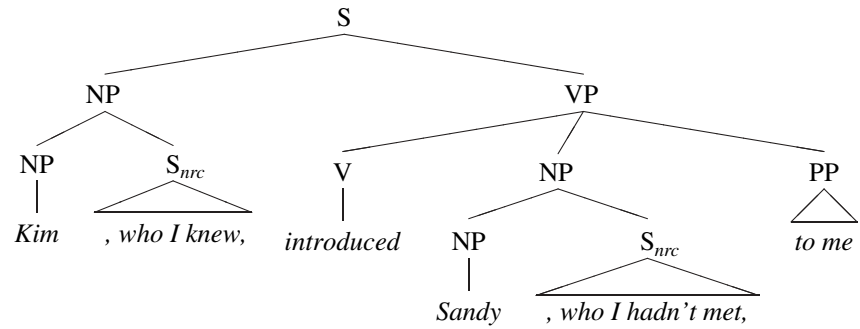

Figure 2
A syntactically integrated analysis of NRCs

which takes account of all the linguistic material. However, the operations that combine elements from different planes at PF and CS are rather limited: essentially just concatenation. Thus, for example, NRCs are not intonationally integrated with the main clause, and their integration into CS is strictly limited, perhaps involving only what is required for the interpretation of independent sentences (e.g. establishing anaphoric relations).[12]

[12] For most constructions, elements from different planes are no more integrated than separate sentences from any given plane, that is, the only integration is what one would expect given that they are part of the same discourse. However, for NRCs specifically, Espinal is prepared to allow that a 'commenting on' relation may be established; an NRC is taken as 'commenting on' – supplying information about – the antecedent of the relative pronoun (Espinal 1991: 757). She does not give any details – it might perhaps involve nothing more than establishing a referent for the relative pronoun, just as with normal cross-sentential anaphora.

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Beyond this limited combination at PF and CS, the planes are entirely separate: as far as grammatical processes operating on the host sentence are concerned, NRCs simply do not exist (and similarly, from the NRC point of view the host sentence does not exist). This means that elements from one plane cannot interact or stand in grammatical relations with elements from another, at any grammatical level. Elements from one plane cannot, for example, stand in c-command relations with elements from another plane, cannot satisfy subcategorisation requirements of elements from another plane (which would require them to be related at D-Structure), and cannot function as arguments of predicates or operators over elements of another plane (which would require them to be related at LF).[13]

In short, the idea is that interaction between elements from different tiers is minimal – essentially just what one would find between separate sentences.

The immediate intuitive appeal of an RO approach should be clear from this. The idea that NRCs, *qua* parentheticals, are essentially just separate sentences neatly captures a leading intuition about them. If they are not part of the grammatical structure of the clause it seems entirely natural that they should be set off phonologically, have a separate illocutionary force, escape sentence negation, disallow NPIs, not play a role in VP-ellipsis, etc. It would also explain the obligatory presence of a relative pronoun in the NRC – roughly, the relative pronoun is required in the NRC in the same way and for the same reasons as a normal pronoun is required in an independent sentence.

I have concentrated on Espinal's approach here because it seems to me the clearest and most worked out as regards formal detail. Among the other proposals that can reasonably be characterised as involving RO, Burton-Roberts (1999) is still more radical: discussing the details of this proposal would take us too far from the main theme, but the general idea is that although the REPRESENTATIONS of the host clause and the NRC appear to be adjacent, the corresponding linguistic objects (i.e. the object of linguistic concern) are not related at all – so there is no GRAMMATICAL relation between the NRC and its host. Peterson (2004) does not try to give a formal account of the relation, but is clear that he regards the NRC and its host as having totally separate grammatical structures, related only by cross-indexing at discourse levels (as he puts it, '[they] are not structurally linked any more than two consecutive sentences in a coherent discourse', p. 395).

[13] As (Espinal 1991: 739) puts it: 'Disjunct constituents do not seem to be attached to host clauses at any syntactic level of representation; their independence holds at least until the time their full interpretation is reached'. Elsewhere, she states that the 'integration' level is one where 'relevance of information being processed is evaluated and access to discourse information and to the visual environment allows argument places to be filled' (Espinal 1991: 748). In short, it is a 'non-linguistic', 'conceptual' level beyond grammatical processes.

Similarly, Fabb's (1990) formalisation is different from Espinal's – he does not discuss the idea of separate tiers of representation, and identifies the level of representation where NRCs and their hosts become related (specifically, where relative pronouns in NRCs are co-indexed with their antecedents) with Safir's level of LF′ (Safir 1986), a level of representation 'beyond' LF. It is possible that this level of representation might more closely resemble normal linguistic levels of representation (and so lack the structure of tiers presented by Espinal). But Fabb is very clear that his is an RO analysis, and in particular, that this level of representation is a 'discourse' level, beyond normal grammatical processes.[14]

In what follows the formal differences and differences of theoretical orientation between these various RO approaches will not be important. The key point has been to clarify the idea of radical orphanage, and to show one way it could be realised. The common denominator is that while NRCs and RRCs may be integrated at some level or levels, these are not grammatical levels in the sense of being the locus of grammatical processes. In short, there is no grammatical interaction between the NRC and its host clause.

4. Problems for RO approaches

In this section I will present a large number of phenomena that appear problematic for RO approaches. I believe that, taken together, they entirely undermine the initial appeal of such approaches. For the purposes of discussion, it will be useful to divide these phenomena into a number of (partly overlapping) groups:

- Phenomena which suggest that NRCs differ from 'real' parentheticals (i.e. from what would be, from an RO perspective, clear cases of genuine orphans).
- Phenomena that suggest that NRCs and their antecedents form syntactic constituents, and that NRCs must therefore be syntactically integrated.

[14] Fabb states: 'The [NRC] is not syntactically related as a constituent to the sentence which contains it (it does not enter into any syntactic relation – such as modification, specification, theta-assignment, etc). Apart from some pragmatic relation of ''aboutness'', the only relation is between the relative pronoun and the antecedent.' (Fabb 1990: 75).

All this makes it rather difficult to classify Safir's (1986) own approach. Historically, it is inaccurate to call it an RO approach, since it pre-dates Haegeman's original RO analysis (Haegeman 1988). It would also misrepresent Safir's position somewhat. Safir claims that NRCs are not part of the syntactic structure at 'normal' levels of syntactic representation (DS, SS, LF), but are part of the structure at a new level 'beyond' LF, which Safir calls LF′. It is thus an orphanage analysis, but not necessarily a RADICAL orphanage analysis since Safir regards LF′ as a level of syntactic representation. The question comes down to what processes and relations hold at this level of LF′. For the purposes of this discussion, there is no real issue here beyond historical accuracy. In particular, notice that Safir and Fabb are in agreement that NRCs are orphans at other 'normal' levels of representation. For this reason, I have listed Safir's approach as an RO approach in section 2.

- Phenomena related to processes which seem to apply in similar ways to NRCs and RRCs, and which therefore suggest that they involve similar (hence, by implication, integrated) structures.
- Other phenomena which appear similar in NRCs and RRCs (thus underlining their similarity) and which suggest specifically that NRCs are grammatically related to the host clause (i.e. integrated).

For the most part, these phenomena raise two kinds of problem for RO analyses. The first is that they involve what are generally considered normal grammatical processes, and as such constitute *prima facie* counter-evidence to RO analyses, because they indicate that NRCs ARE grammatically related to parts of the host clause, whereas according to RO analyses the only relations should be discourse relations. The second is that in many cases the phenomena are indicative of NRCs and RRCs standing in a similar relation to surrounding linguistic material. Of course, on an RO approach, the structures involved are very different. This means that even if an RO account of these phenomena can be given, it will not be a UNIFIED account for NRCs and RRCs, and the evident parallels between RRCs and NRCs will be left unexplained.

4.1 *NRCs are not parentheticals*

A central plank of the RO analysis of NRCs is that NRCs (but not RRCs) are parentheticals, and that this explains the special properties of NRCs, in particular, the differences between NRCs and RRCs. There are two sorts of problem with this. First, the differences in 'parentheticality' between NRCs and RRCs are not as great as has been argued. Second, there are striking differences between NRCs and 'normal' parentheticals.

The most obvious difficulty with parentheticality as an explanation of the differences between NRC and RRCs is that RESTRICTIVE relatives can be parenthetical, at least in the sense of being uttered 'in parenthesis' or having 'comma' intonation. The examples in (26) involve 'parenthetical' restrictive relatives: *that*-relatives in the case of (26a), two non-finite relatives in the case of (26b).

(26) (a) There are no problems – that I'm aware of – with this proposal, or any of the others we are looking at today.
(b) He brought with him a book – to read – and a blanket – to sit on.

As evidence for the parentheticality of NRCs, it is often suggested that only NRCs can function as independent utterances (e.g. Burton-Roberts 1999). This is simply not true. In (27) speaker B supplements speaker A's utterance with an NRC. In (28) speaker B supplements it with an RRC (a *that*-relative). Both are equally good.

(27) A: My publications include the article in *Scientific American*.
B: Which you've not even begun to write yet. [Burton-Roberts 1999]
(28) A: So you see, there are absolutely no problems with this analysis.
B: That you know about …

If NRCs were orphans, one would expect them to behave like genuine parentheticals with respect to what Ross (1984) called 'niching' – i.e. appearing between major sentential constituents. This expectation is not borne out. This can be exemplified by comparing NRCs with *and*- and *as*-parentheticals. (29) contains basic examples intended to show the similarities.

(29) (a) The senator told the public many lies, as everyone now admits.
(b) The senator told the public many lies, and everyone now admits it.
(c) The senator told the public many lies, which everyone now admits. [NRC]

However, the following examples show that whereas *and*- and *as*-parentheticals can occur inside their 'host' constituent (the constituent they modify semantically), NRCs must appear after their antecedents:

(30) (a) The senator told the public, as everyone now admits, many lies.
(b) The senator told the public, and everyone now admits it, many lies.
(c) *The senator told the public, which everyone now admits, many lies. [NRC]
(31) (a) The senator, as everyone now admits, told the public many lies.
(b) The senator, and everyone now admits it, told the public many lies.
(c) *The senator, which everyone now admits, told the public many lies. [NRC]

As-parentheticals can also precede their antecedents, but this is not possible for NRCs:

(32) As everyone now admits, the world is round.
(33) *Which everyone now admits, the world is round.

Notice that these data are exactly what would be predicted by a syntactically integrated analysis – they show NRCs right-adjoining to, and hence following, their antecedents, just like RRCs.

In response to this problem, RO analyses typically resort to a stipulation that NRCs must immediately follow their antecedents.[15] Unfortunately this

[15] (Espinal 1991: 752) notes that different kinds of parenthetical will be subject to different conditions, including '[a] requirement that nonrestrictive relative clauses must immediately follow their antecedents', and says that '[a]mong the universal well-formedness conditions that seem to depend on the nature of the parenthetical is the requirement that nonrestrictive relative clauses must immediately follow their antecedents'. She does not attempt to formalise this requirement, or motivate it in any other way, however. In fact, it raises some

stipulation is inadequate. In what follows we will see several examples of processes which can separate an NRC from its antecedent (the same processes, in fact, that can separate an RRC from the nominal it modifies – as expected under an integrated analysis).

4.2 *Constituency*

On an RO analysis, NRCs and their antecedents belong to separate 'tiers' of grammatical organisation, and consequently do not form constituents. However, there is considerable evidence that NRCs do form grammatical constituents with their antecedents.

As is well known, 'possessive marking' clitic *'s* appears at the right edge of the NP it marks. The following exemplifies for NPs with postnominal complements, PP adjuncts, and RRCs.

(34) (a) King Alphonso's mother left early.
(b) The king of England's mother left early. [Complement]
(c) The king with the ermine cloak's mother left early. [Adjunct]
(d) The person that ruined the party's mother left early. [RRC]

Since the NRC is not a grammatical part of the NP on the RO analysis, its presence should not affect clitic placement, so one might reasonably expect possessive marking to appear after the antecedent and before the NRC (as it would if the NRC was really absent, as in (34a)). But this gives the totally unacceptable (35):

(35) *King Alphonso's, who ruined the party, mother left early.

In fact, possessive marking must follow the NRC, exactly as one would expect if the NRC and its antecedent formed an NP constituent:[16]

(36) King Alphonso – who ruined the party – 's mother left early.

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potentially difficult technical problems. For example, as Fabb (1990) notes, NRCs can be coordinated as in (i):

(i) I saw Kim, who I like and who always says nice things about me.

But under normal assumptions only the first conjunct will be adjacent to the antecedent. Fabb proposes a 'parallel structure' approach to coordination (Goodall 1987) as a way around the problem. This may be feasible, but it indicates that an RO approach is not simply an optional extra which can be added, cost-free, to an existing theory. (Fabb 1990: 65) tries to account for the restriction by suggesting that only the node preceding and immediately adjacent to the relative clause is 'visible' to the interpretation rules that relate the index on the relative pronoun to that on the NP. See Borsley (1992) for problems with Fabb's account.

[16] Examples like (36) look somewhat odd visually, but sound much better, and the contrast between them and examples like (35) is robust. The latter are completely ruled out. One reason why examples like (36) may seem strange is that they are impossible to punctuate sensibly if the NRC is set off by commas. They look much better if the NRC is put in parenthesis, as in *my mother* (*who used to live in Edinburgh*)*'s new flat*.

More generally, syntactic operations which have traditionally been analysed as involving movement invariably treat NRCs as though they formed a constituent with their antecedents. The following exemplify with respect to Topicalisation, Cleft-formation, Raising, Passive, and *Tough*-movement. In each case the (a) example shows the result of moving the antecedent and the NRC together, while the (b) example shows the result of moving just the antecedent, 'stranding' the NRC.

(37) (a) Sandy, who I'm sure you remember, I see Δ regularly.
(b) *Sandy, I see, Δ, who I'm sure you remember, regularly.
[Topicalisation]

(38) (a) It is Sandy, who I'm sure you remember, that I see Δ regularly.
(b) *It is Sandy that I see, Δ, who I'm sure you remember, regularly.
[Cleft-formation]

(39) (a) Sandy, who I'm sure you remember, always seems Δ helpful.
(b) *Sandy always seems Δ, who I'm sure you remember, helpful.
[Raising]

(40) (a) Sandy, who I'm sure you remember, was vilified Δ by the press.
(b) *Sandy, was vilified Δ, who I'm sure you remember, by the press.
[Passive]

(41) (a) Sandy, who I'm sure you remember, is hard to please Δ.
(b) *Sandy is hard to please Δ, who I'm sure you remember.
[*Tough*-movement]

Again, this is just what a 'syntactically integrated' account would predict. It might seem that an RO approach could deal with this by assuming that the 'right-adjacency' constraint applies to 'post-movement' structures (outside the syntax, e.g. at PF). But this will be difficult to reconcile with facts about the positioning of possessive clitics (if the NRC is to be right-adjacent to the antecedent, it should FOLLOW, not precede, the clitic), and with a range of phenomena I will consider in the following sections.

4.3 *Surface parallels between NRCs and RRCs*

In this section I will describe a number of surface structure parallels between NRCs and RRCs. These are important in several ways. In the first place, they are examples of normal syntactic processes involving NRCs, hence *prima facie* evidence for syntactic integration and against RO. They are, moreover, processes that appear to operate similarly with NRCs and RRCs. This is problematic for an RO approach, which will treat NRCs and RRCs very differently, precluding a unified account. As we have seen in the preceding sections, there are a number of problems which an RO approach might overcome by appeal to some requirement of 'right-adjacency' between an NRC and its antecedent. The phenomena discussed in this section will show that no such requirement exists.

4.3.1 *Parenthetical intervention*

One problem facing a formalisation of 'right-adjacency' for NRCs and their antecedents is the possibility of 'normal' parentheticals intervening, as in (42) and (43). Notice that it is not possible to evade this problem by claiming that the normal parenthetical is absent at the level of representation where adjacency is defined, because *ex hypothesi* the NRC must also be absent at such a level.

(42) Some soldiers fled. **Horatio**, on the contrary, **who is always brave**, stood his ground.
(43) **Horatio**, my friends, **who has never let us down**, is the man we should elect.

Of course parentheticals can also appear between a nominal and an RRC, cf. the following NRC/RRC pairs. This is to be expected on an integrated account, where the syntactic structures are very similar.

(44) (a) On the bridge we saw **Horatio** – I think – **who cried out defiantly**. [NRC]
(b) On the bridge we saw **a centurion** – I think – **that cried out defiantly**. [RRC]
(45) (a) On the bridge we saw **Horatio** – tall, brave, in full armour – **who cried out defiantly**. [NRC]
(b) On the bridge we saw **a centurion** – tall, brave, in full armour – **that cried out defiantly**. [RRC]

4.3.2 *Nominal complement extraposition*

As the following show, complements of N can be extraposed over following RRCs.

(46) (a) Sam pointed out the two teachers [of Basque] [that you mentioned].
(b) Sam pointed out the two teachers [that you mentioned] [of that strange and beautiful exotic language of North West Europe].

They can also be moved over NRCs: (47b), which shows the complement of *proof* shifted over the NRC, is no worse than (47a), where it has not been shifted.[17]

[17] (Potts 2002b: 85, note 21) gives the following wonderful example where a verbal complement has been shifted over an NRC:

> 'I'd have a better chance of winning the MegaBuck lottery,' Miles said, sliding the platter onto the counter and noticing, which he hadn't for a long time, the purple cyst that grew out of Horace's forehead.
>
> [Richard Russo, *Empire Falls*, A. A. Knopf, New York, 2001, p. 21.]

(47) (a) Sam claims to have found a proof of one of the most famous conjectures in the history of higher mathematics, which many believed could not exist.
(b) Sam claims to have found a proof, which many believed could not exist, of one of the most famous conjectures in the history of higher mathematics.

Of course, this is another example where an NRC is not 'right-adjacent' to its antecedent (superficially, the NRC is actually INSIDE the antecedent in (47b)). It should be unproblematic for a syntactically integrated account, where essentially the same process of extraposition should be able to move material over NRCs and RRCs. It is not clear what an RO account would be, but it is hard to see how such an account could use the same apparatus to deal with cases involving NRCs and RRCs.

4.3.3 *Adjunct placement*

The following poses a further challenge to any 'right-adjacency' account of NRC placement. Despite what is sometimes assumed, NRCs are not required to follow other modifiers. The following involves a PP modifier:

(48) I took her some fruit, which she enjoyed, and a book, which bored her, by one of the most famous living Russian authors.

Emonds (1979: 222) observed that NRCs may even precede RRCs (these examples are based on Emonds'):

(49) We enjoyed the movie that you mentioned, which cost plenty.
(50) We enjoyed the movie, which cost plenty, that you mentioned.
(51) The movie that you mentioned, which cost plenty, bored most of us.
(52) The movie, which cost plenty, that you mentioned, bored most of us.

Again, assuming that the RRC and the nominal form a constituent, this shows NRCs 'inside', rather than right-adjacent to, their antecedents on the surface.

4.3.4 *Stacking*

It has often been claimed that NRCs do not 'stack'. Thus Chomsky (1975) contrasts (53), involving a stack of RRCs, with (54); (55) is given as ungrammatical in Jackendoff (1977):

(53) People who go to MIT who like math will get good jobs. [RRC]
(54) *John, who goes to MIT, who likes math, will get a good job. [NRC]
(55) *Solving this problem will take till doomsday, which is longer than most problems take, which is longer than we've got.

If this claim were true, it would be evidence for an RO analysis. But it is not true (e.g. Grosu & Landman 1998, Grosu 2000, De Vries 2000, Kempson 2003). The following examples involving stacks of NRCs are grammatical:

(56) I fear the Honourable Member, who nobody trusts, who nobody believes, who not even his own supporters listen to, has finally run out of time.
(57) John, who hands in all his work on time, who is on the student council, who even likes Math, for chrissake, will certainly get a good job.

Notice that (57) is broadly parallel to (54). Similarly, consider the putatively ungrammatical (54) in a discourse context where it is a continuation of (53), where it appears acceptable:

(58) In general, people who go to MIT who like Math will get good jobs. For example, I expect John, who goes to MIT, who likes Math, will get a good job.

Attested examples exist in both spoken and written media (see the Appendix).

It seems clear that any unacceptability associated with stacking of NRCs does not reflect a grammatical constraint.[18] Given that RRCs stack, stacking of NRCs is expected on a syntactically integrated account. It is problematic from an RO perspective, because only the first NRC in a stack can be 'right-adjacent' to the antecedent.

4.3.5 *Extraposition*

RRCs can be extraposed, as in (59). It has often been claimed, on the basis of examples like (60), that this is not possible for NRCs:

(59) Someone came who Mary knew. [RRC]
(60) ?John came, who Mary knew. [NRC]

Again, if this were true, it would be evidence for an RO analysis. But it is not true (De Vries 2002, 2006). The following are equally acceptable:

(61) (a) I saw someone yesterday that I hadn't seen for years. [RRC]
(b) I saw my mother yesterday, who I hadn't seen for years. [NRC]

[18] (Potts 2005: 101) suggests that stacking of NRCs is unacceptable when they have to be taken as providing an independent narrative (rather than just more background). My own impression is that in the best examples of stacking the NRCs are in some way parallel in meaning, with later ones re-enforcing or intensifying the meaning expressed by the earlier ones – this is particularly clear with examples like (56) and (57).

Even the doubtful (60) can be made acceptable if the NRC is made heavier and hence more worthy of being shifted rightwards:

(62) Even John came, who everyone had expected would be too scared of potential publicity.

Attested examples are relatively easy to find (see the appendix).

Again, we see NRCs separated from their antecedents, and again this is unsurprising under a syntactically integrated account.

In fact there are some situations in which extraposition of NRCs is required:

(63) She dropped to the ground and rolled under the house, bump, right into the **cobra**'s box, **which lashed angrily in reply**.
[Donna Tartt, *The little friend*, Bloomsbury, 2002 (=(115) in the appendix)]

(64) (a) There were only thirteen senators present, **which number was too few for a quorum**.
(b) *There were only thirteen, **which number was too few for a quorum**, senators present.

On an integrated account, this will follow from the general principle which, roughly speaking, forbids pre-nominal elements from containing post-head 'phrasal material' – the same principle that accounts for the contrast in (65) (cf. Sadler & Arnold (1994) and references there):

(65) There were two senators **more than yesterday** present.
(66) *There were two **more than yesterday** senators present.

Of course, no such unified account will be available under an RO analysis.

4.4 '*Integrated*' *phenomena and processes*

Under an RO approach there are no syntactic relations (e.g. command) between an NRC and its host clause, and no grammatical processes should involve the NRC and the host. In this section, I will present evidence that this is incorrect. Again, the processes and restrictions will be ones which seem to work in the same way in NRCs and RRCs.

4.4.1 *Constraints on antecedent–anaphor relations*

At least some constraints on antecedent–anaphor Relations which involve command are similar in NRCs and RRCs. For example, there is a familiar restriction on the relation between an anaphor and its antecedent, which can be stated descriptively as 'an anaphor may not both precede and command its antecedent'. The effect of this can be seen in (67). In (67a) the anaphor follows the antecedent. In (67b) it precedes the antecedent, but does not

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command it. However, in (67c) it both precedes and commands, and the result is ungrammatical.

(67) (a) The people that saw [the film]$_i$ were deeply affected by it$_i$.
(b) The people that saw it$_i$ were deeply affected by [the film]$_i$.
(c) *It$_i$ deeply affected the people that saw [the film]$_i$.

These examples involved an RRC. What is significant is that the same constraint seems to operate in NRCs in the same way:

(68) (a) My parents, who saw [the film]$_i$, were deeply affected by it$_i$.
(b) My parents, who saw it$_i$, were deeply affected by [the film]$_i$.
(c) *It$_i$ deeply affected my parents, who saw [the film]$_i$.

This is *prima facie* evidence of precedence and command relations existing between elements of the NRC and the host sentence, contrary to the expectations of an RO account.

4.4.2 *VP-ellipsis*

VP-ellipsis is able to delete material in one relative clause under identity with material in another. (69) is a straightforward example involving RRCs:

(69) Someone that [supports the war]$_i$ insulted someone that doesn't Δ_i.

The following examples suggest that VP-ellipsis operates similarly with NRCs: (70a) is a direct contrast with (69), showing ellipsis of material in an NRC under identity with material in an RRC; (70b) shows the reverse (the antecedent is in an NRC, the ellipsis is in an RRC); (70c) has both antecedent and ellipsis site in NRCs.

(70) (a) Someone that [supports the war]$_i$ insulted Kim, who doesn't Δ_i.
(b) Sandy, who [supports the war]$_i$, insulted someone that doesn't Δ_i.
(c) Sandy, who [supports the war]$_i$, insulted Kim, who doesn't Δ_i.

Assuming VP-ellipsis to be an operation on grammatical structures (e.g. LFs), data like (70a) and (70b) are entirely unexpected, because no grammatical process should be able to access an NRC and an RRC at the same time.

4.4.3 *Right-node-raising*

Roughly speaking, Right-node-raising (RNR) involves a 'raised' constituent that appears to have moved rightward in the main clause, and is associated with 'gap' positions in both conjuncts of a coordinate structure. In (71) the gaps are both in RRCs.

(71) Sam knows someone [that buys Δ], and Kim knows someone [that sells Δ], the pretentious garbage that some call Modern Art.

However RNR is formulated, it must surely be able to 'see' both gaps and raised material, implying that they are simultaneously present at some level of grammatical representation. In the following example, the gaps are in NRCs, suggesting that the NRCs and the host sentence are part of the same grammatical representation:

(72) Sam knows Sandy, [who buys Δ], and Kim knows Leslie, [who sells Δ], the pretentious garbage that some call Modern Art.

A defender of the RO view might suggest that in such cases gaps and raised material all belong to the same tier, all separate from the main clause. However, the following examples, in which one gap is in an NRC and the other is in an RRC, show that this is not a tenable defence. In fact, it seems that RNR treats elements of NRCs in just the same way as elements of RRCs.

(73) (a) Sam knows someone [that buys Δ], and Kim knows Leslie, [who sells Δ], the pretentious garbage that some call Modern Art.
(b) Sam knows Sandy, [who buys Δ], and Kim knows someone [that sells Δ], the pretentious garbage that some call Modern Art.

4.4.4 *Quantified NP antecedents, bound anaphora*

Following Ross (1967), it has often been claimed that, in contrast with RRCs, NRCs cannot have Quantified NPs (QNPs) as their antecedents, and cannot contain pronouns bound by external QNPs. Ross gave examples like the following:

(74) (a) Every/No plane which has an engine in its tail is a failure.
(b) *Every/No plane, which has an engine in its tail, is a failure.

This can be seen as evidence for an RO analysis because if NRCs are orphans, quantifiers in the host clause will not command (and hence will not be able to bind) either the relative pronoun or any other pronoun in the NRC.

Unfortunately, there are many counter-examples to Ross's observation (first pointed out by Sells (1985, 1986), see also Demirdache 1991, Kempson 2003, Del Gobbo 2003b), which make this line of argument problematic. The following involve NRCs with QNP antecedents; (75c), (75d), and (75e) involve both quantified antecedents and what appear to be bound pronouns inside the NRC.[19]

[19] The pronouns in (75c) and (75d) are in some kind of semantic 'co-variation' relation with their QNP antecedents. For example, (75c) can be paraphrased as: 'To every x, student(x),

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(75) (a) Every chess set comes with a spare pawn, which you will find taped to the top of the box. [Sells 1985]
(b) Every new student is assigned a tutor, who is responsible for the student's well-being in college.
(c) Two tutors will be assigned to each student, who are then responsible for getting his papers to the Dean's office on time.
(d) Every American film producer pays the lead actress, who hates his guts, a fortune. [Kamp & Reyle 1993: 255]
(e) Every parrot sang a song, which it ruined. [Kempson 2003]

These examples involve universal quantifiers, and it has sometimes been suggested that there is a weaker restriction on kinds of QNP that can antecede NRCs (e.g. that only QNPs with 'counting' quantifiers, or non-negative quantifiers are allowed (Kempson 2003)). But even this weaker claim is false. The following examples involve a variety of quantified antecedents (including, notably, the negative quantifier *no*).

(76) (a) No properly qualified linguist, who would have been taught phonetics as part of her training, would have made that mistake.
(b) Few/Hardly any/Less that one in ten properly qualified linguists, who would have been taught phonetics as part of their training, would have made that mistake.
(c) All/Many/Most/Several/Some properly qualified linguists, who would have been taught phonetics as part of their training, would have got that right.
(d) Any/Every properly qualified linguist, who would have been taught phonetics as part of their training, would have got that right.

There is in fact no simple restriction on the kind of QNP that can antecede an NRC (though, as will appear, QNP antecedents are not always possible). Indeed, making examples like (74b) acceptable seems to be a matter of manipulating the content of the NRC (partly to make it more plausible):

(77) Every/No modern plane, which may or may not have an engine in its tail, is prone to this sort of problem.

At the very least, such data undermine an argument that has been used to support RO analyses. But they are also indicative of a more general and

two tutors (y) will be assigned, y are then responsible for getting x's papers to the Dean's office on time' – the interpretation is that for each student the persons responsible co-vary with the tutors assigned. Such examples pose a fundamental problem for RO approaches if the relation between the pronoun and QNP is one of binding. However, a defender of an RO approach could argue that it is not (syntactic) binding but some other kind of relation (e.g. Sells (1985) speaks of 'cospecification'). In fact, the analysis I will present in section 5 will be of this kind. From this point of view, examples like (75c) do not provide direct evidence that RO approaches are wrong; they simply invalidate an argument that has been used to support them.

more puzzling issue. Taken at face value, they seem to show that an NRC can stand in a scopal relation with its antecedent – in fact, they suggest that NRCs can take narrow scope with respect to their antecedents. This is problematic because, as we have seen in section 2, there is considerable evidence that NRCs typically take wide scope. In the following section, I will sketch a syntactically integrated approach to NRCs that provides a solution to this 'scope paradox'.

5. A SYNTACTICALLY INTEGRATED ALTERNATIVE

The preceding section has presented a considerable number and variety of phenomena that appear problematic for an RO analysis of NRCs. But problematic phenomena, however extensive, do not defeat analyses. Alternative analyses are required. In this section I will briefly sketch a 'syntactically integrated' approach to NRCs, which is not subject to the problems set out in the previous section, and which deals straightforwardly with the 'scope paradox' mentioned at the end of the previous section.[20]

There are three key ideas (the last two of which are just the 'plausible and relatively uncontroversial assumptions' which were used in section 2 to make sense of the basic facts about NRCs):

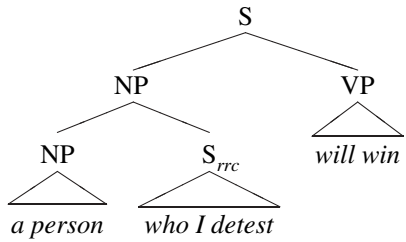
- NRCs are syntactically like RRCs (i.e. they are syntactically integrated).
- NRCs are interpreted like independent sentences – non-compositionally (i.e. they are NOT semantically integrated).
- In NRCs, relative pronouns are treated as essentially normal anaphoric pronouns.

As regards the syntax, readers should simply take their favourite analysis of RRCs and assign the same structures to NRCs (perhaps with minor adjustments – for my purposes here, all that matters is that the NRCs should be syntactically integrated).[21] For example, Sag's (1997) detailed and comprehensive analysis of English RRCs assigns structures like (78).

[20] A formalisation of the approach can be found in Arnold (2004). It is stated in terms of Head-driven Phrase Structure Grammar (Pollard & Sag 1994) and Underspecified Discourse Representation Theory (Reyle 1993, Frank & Reyle 1995).

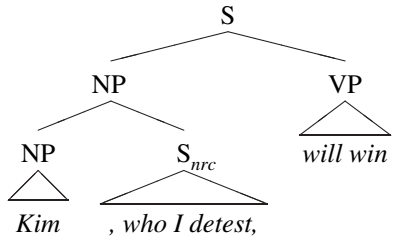
[21] Minor adjustments might include assuming that RRCs are adjoined to N, or $\overline{\text{N}}$, while NRCs are adjoined to NP (following Jackendoff (1977) – though notice that much of the motivation for this difference rests on false assumptions about the differences between NRCs and RRCs in relation to stacking, extraposition, etc., discussed in section 4). An important argument for attaching RRCs below NP is that this brings them into the syntactic scope of the Determiner; but notice that Sag's analysis gets the desired results for RRCs without assuming this. Moreover, the analysis I provide here will also work if both RRCs and NRCs are attached to N.

(78)



The same syntactic structures can be used for NRCs, giving representations like (79).[22]

(79)



Given this, we have an immediate explanation of the similarities between NRCs and RRCs that were pointed out above. In particular, the facts about constituency follow immediately, e.g. that movement processes treat NRCs and their antecedents as constituents, and that possessive '*s* attaches after NRCs. Because the same rules and principles operate on NRCs and RRCs, we correctly predict that NRCs should 'stack', and that Right-node-raising will be able to operate on NRCs and RRCs in the same way. We have a straightforward account of the ways in which NRCs can be separated from their antecedents (the same processes, e.g. extraposition, that separate RRCs from their head nouns can separate NRCs from their antecedents).

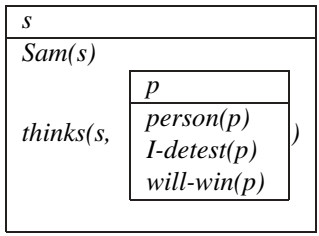
As regards the semantics, readers should use their favourite, presumably compositional, treatment of the semantics of RRCs, and use for NRCs their favourite treatment of anaphoric pronouns and non-compositional phenomena (or, failing that, some other approach to 'wide scope' phenomena). For the purposes of exposition, an account using Discourse Representation Theory (DRT; Kamp & Reyle 1993) is particularly straightforward.

For an RRC such as (80), an analysis along the lines of the Discourse Representation Structure (DRS) in (81) is appropriate.

[22] NRCs and RRCs do not have to be given absolutely identical representations; they might be distinguished by a feature ±NRC, or a COMMA feature, as used by Potts (2005, 2007).

(80) Sam$_s$ thinks a person$_p$ who$_p$ I detest will win.

(81)

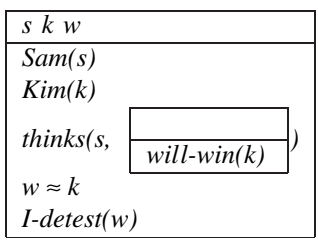


In words, this says there is an individual *s* who stands in the *thinks* relation to the proposition that there is some individual *p* who satisfies the conditions of being a person, detested by me, and winning. The crucial point is that the conditions associated with the RRC (specifically the '*I-detest*(*p*)' condition) appear in the same DRS 'box' as the conditions associated with the head noun (*person*(*p*)), i.e. the RRC is interpreted 'compositionally'.[23]

As regards NRCs, in DRT terms to say that relative pronouns are treated anaphorically is just to say that they introduce a discourse variable, and saying that NRCs are interpreted as independent sentences just means that, like other 'wide scope' items such as proper names and indexicals, their content goes into the 'top box' (i.e. the largest, least embedded box). Thus the representation of (82) will be along the lines of (83).

(82) Sam$_s$ thinks Kim$_k$, who$_w$ I detest, will win.

(83)



In words, there are individuals *s*, *k*, and *w*, *s* thinks *k* will win, I detest *w*, and *w* is referentially dependent on *k* ('referential dependence' includes, but is not limited to, co-reference). The points to notice are that the relative pronoun has been treated as a pronoun (cf. the discourse variable *w* and the condition $w \approx k$), and that the content of the NRC (the condition *I-detest*(*w*))

[23] Inessential points include the way the relative pronoun has been assumed to play no role in the semantics at all – I have taken it to be just a syntactic marker which mediates co-indexation between the head noun and the relativised position in the relative clause. To give it semantic content would simply involve adding another variable, say *w*, to the embedded box, replacing *I-detest*(*p*) with *I-detest*(*w*), and adding the condition $w \approx p$. I ignore here the other reading of (80), where the indefinite takes wide scope with respect to think. Nothing hinges on this: on that reading too *I-detest*(*p*) and *person*(*p*) will appear in the same box, just not in the scope of *think*.

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has gone into the 'top box'. This is essentially the same representation as would be assigned to (84), if *her* is interpreted as *Kim*.[24]

(84) Sam_s thinks Kim_k will win. I detest her_w.

For concreteness, I will assume that the semantic relation between the relative pronoun and its antecedent (which is reflected in the condition $w \approx s$) is the result of a grammatical process of some kind. This reflects the fact that relative pronouns in NRCs must be referentially dependent on their antecedents, and lack the full range of anaphoric possibilities of ordinary pronouns (e.g. *her* in (84) could be interpreted as either *Sam* or *Kim*, but for the relative pronoun in (82) there is only one possibility).

We have here the basis of a formal account of many of the properties described in section 2. If the content of an NRC which is inside a VP goes into the 'top box', it will not be part of the content of that VP, so it is not surprising that it should be invisible to the process that interprets VP-ellipsis (compare (12b)). If NRCs are treated as independent sentences, then, like any independent sentence, they are expected to have their own illocutionary force (compare (18)–(20)), and are expected to be able to bear discourse relations (like 'consequence') to other sentences, including their host sentences (compare (21)). In English, independent sentences are normally finite – hence the exclusion of non-finite relative clauses as NRCs (compare (7)).[25] If NRPs are treated as normal anaphoric pronouns, we account straightforwardly for the wide range of possible antecedents (compare (9)), and the possibility of split and 'constructed' antecedents (compare (10a–c)).

Taking both assumptions together, we have an account of the behaviour of NRCs with respect to 'contrast sets' (compare (11)). We also have a plausible explanation for why the relative pronoun is obligatory in NRCs: the relative pronoun is required to establish the anaphoric link to the antecedent, just as a normal pronoun is required in independent sentences (since English lacks any appropriate null-anaphor).

Moreover, as (83) shows, putting the content of the NRC into the 'top box' accounts for the way it is interpreted as being outside the scope of a propositional verb (compare (17)). In the same way, the content of an NRC will also escape the scope of sentence negation and other NPI licensors,

[24] It is interesting to note that this means that, in the absence of scope-bearing elements like negation or propositional attitude verbs, there is almost no semantic difference between NRCs and RRCs when they are attached to indefinite NPs (e.g. there is almost no semantic difference between *I met a man who I admire* and *I met a man, who I admire*). Since under this analysis there is no important syntactic difference either, we have an account of why even native speakers often have trouble with the difference between restrictive and non-restrictive relatives.

[25] Footnote 5 remarked on the possible existence of some non-finite NRCs. Notice that their existence is not problematic for this approach, since they are non-finites that are acting as independent sentences (e.g. they have their own illocutionary force).

thus predicting that it will not be able to contain the focus of external negation (compare (13)) or externally licensed NPIs (compare (22a–b)). We can also explain the contrast in (85):

(85) (a) Sam owns a car, which is dented.
(b) *Sam doesn't own a car, which is dented.

As one would expect, the explanation is the same as the explanation for the contrast in (86). The associated DRSs are (87), for (85a) and (86a), and (88), for (85b) and (86b).

(86) (a) Sam owns a car. It is dented.
(b) *Sam doesn't own a car. It is dented.

(87)

s c w
Sam(s)
car(c)
owns(s,c)
dented(w)
$w \approx c$

(88)

s w
Sam(s)
¬ | *c* | *car(c)* *owns(s,c)* |
dented(w)
$w \approx c$

('Improper')

The DRS (87) is unproblematic, but (88) is ill-formed (in DRT terms, it is IMPROPER). This is because there is a general constraint on DRS conditions, including conditions of the form $w \approx c$, that the discourse variables they contain must appear in the universe of an ACCESSIBLE DRS (the universe of a DRS is the part at the top of the box separated off by a line – intuitively, it contains the objects that must exist in models of the DRS). A DRS where this constraint is not satisfied is said to be IMPROPER. Roughly, every DRS is accessible from itself, the antecedent of a conditional is accessible from the consequent, and a larger, containing DRS is accessible from a smaller, contained one (but not *vice versa*). Since in (88) the discourse variable *c* does not appear in the universe of the top box, but in that of the sub-DRS in the scope of negation, it is not accessible to the condition $w \approx c$. Hence (88) is improper.

However, there are several properties of NRCs that we have not yet accounted for.

For one thing, the principles that explain the ungrammaticality of (85b) predict that it should never be possible to attach an NRC to an indefinite in the scope of negation. But this is not the case. For example, (89) has

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essentially the same structure as (85b), and hence should also be ungrammatical, but it is fine:

(89) Sam doesn't own a car, which she wouldn't be able to drive (anyway).

Moreover, putting NRCs into the top box gives them wide scope. But how can this be compatible with them having narrow scope, as the examples in section 4 involving QNP antecedents seem to require? In fact, as presented so far, the approach seems to suggest that NRCs should not be able to take QNP antecedents – for the same reason that QNPs cannot bind pronouns across sentence boundaries (compare e.g. Heim's (1982) 'Scope Constraint'). That is, the examples we saw in section 4 of NRCs attached to QNPs should be bad in the same way as examples of cross-sentential variable binding like the following (which also involve inaccessible antecedents, and hence improper DRSs).[26]

(90) (a) *No female politician will support this proposal. She will be vilified in the press.
(b) *Every female politician will support this proposal. She knows that the press adore her.

In fact, the solution to these problems is relatively straightforward, and indeed consistent with our approach to the semantics of NRCs. However, before presenting it, it is worth pointing out that the 'scope paradox' noted at the end of section 4 is actually worse than suggested there. As first pointed out in Arnold (2004), not only do NRCs show both wide and narrow scope properties, they can show them AT THE SAME TIME. Consider (91).

(91) No properly qualified linguist, who would have (*ever) been taught phonetics as part of her training, would have made that mistake.

Notice that the NPI *ever* is not allowed in the NRC in this example, consistent with the NRC being outside the scope of the negative quantifier *no linguist*. Equally, however, the example involves *her* being semantically linked to *no linguist*, suggesting that the NRC is simultaneously within the scope of the quantifier.[27]

The solution to these problems begins with the observation that cross-sentential binding is NOT always impossible (cf. Roberts 1989, 1996). Compare (90a, b) with (92a, b), where cross-sentential does occur.

[26] Many speakers find examples like these marginal, rather than entirely bad, partly because very small changes (e.g. altering the tense of one of the verbs) can make them acceptable. This is explicable in terms of the accommodation process to be described directly. Such readers are urged to accept the indicated judgements at face value for the sake of discussion.

[27] The NPI is of course possible in an RRC, witness:

(i) No properly qualified linguist that had (ever) been taught phonetics as part of her training would have made that mistake.

(92) (a) No female politician will support this proposal. She would be vilified in the press.
(b) Every female politician should support this proposal. She should realise that the press will adore her.

According to Roberts, examples like these involve an accommodation process, which she calls 'telescoping' or 'modal subordination'. Precisely what circumstances trigger this process remains somewhat unclear, except that it has something to do with indicators of 'discourse continuity' – signalling that the second sentence is intended to be interpreted relative to assumptions that can be derived from the previous context (for example, the *irrealis* tense in (92a) indicates a continuation relative to the assumption that a female politician does support the proposal; cf. Roberts 1989, 1996; Poesio & Zucchi 1992; Kadmon 2001 for further discussion). Fortunately, this is not critical here: for our purposes what matters is that the process seems to operate in a similar way with NRCs – which is of course what this approach NRCs would lead one to expect.[28]

Consider examples (85b) and (89), repeated here as (93a, b).

(93) (a) *Sam doesn't own a car, which is dented. (=(85b))
(b) Sam doesn't own a car, which she wouldn't be able to drive (anyway). (=(89))

Notice that the same pattern can be seen in examples involving cross-sentential binding, such as (94a, b).

(94) (a) *Sam doesn't own a car. It is dented. (=(86b))
(b) Sam doesn't own a car. She wouldn't be able to drive it (anyway).

In each case, the use of *irrealis* tense in the (b) example makes the indicated binding licit. Under the account of modal subordination presented in Poesio & Zucchi (1992), this works as follows. Initially the (b) examples receive a representation like (95). This is parallel to the representation assigned to the (a) examples, which was given in (88), and is improper in the same way (cf. the final condition $w \approx c$, with c inaccessible in a subordinate DRS).

[28] Cooper (1983: 92f.) noted a parallel between NRCs and discourse anaphora, but the insight about the parallelism between NRCs and cross-sentential binding with respect to modal subordination is due to Sells (1985, 1986). His approach is rather different from what is described here, however. Sells appears to give NRCs wide scope in some contexts and narrow scope in others. This provides no way to capture the mixtures of wide and narrow scope discussed here.

(95)

s
Sam(s)
¬ [*c* | *car(c)*; *owns(s,c)*]
y w
y would not be able to drive w anyway
$y \approx s$
$w \approx c$

('Improper')

However, in the (b) examples, the *irrealis* tense signals the appropriate form of discourse continuity, and triggers accommodation. The initial representation is given in (96). What this means is that the content of the NRC (or of the second sentence in (94b)) is placed in the consequent of a conditional whose antecedent can be thought of as a kind of anaphoric pronoun, which, like any normal pronoun, must be resolved (i.e. associated with content from elsewhere in the discourse, cf. the condition $\chi \approx ??$).[29]

(96)

s
Sam(s)
¬ [*c* | *car(c)*; *owns(s,c)*]
$\chi \Rightarrow$ [*y w* | *y would not be able to drive w anyway*; $y \approx s$; $w \approx c$]
$\chi \approx ??$

There are various resolutions for χ that are consistent with accommodating the content of the NRC in (93b) or the second clause in (94b). The two most obvious are (97) and (98), corresponding roughly to *a car that she* (*Sam*) *owns* and *a car*, respectively:

(97)

$\chi =$ [*v c* \| *car(c)*; *owns(v,c)*; $v \approx s$]

[29] The idea of treating accommodation as a kind of anaphoric process is originally due to Sandt (1992).

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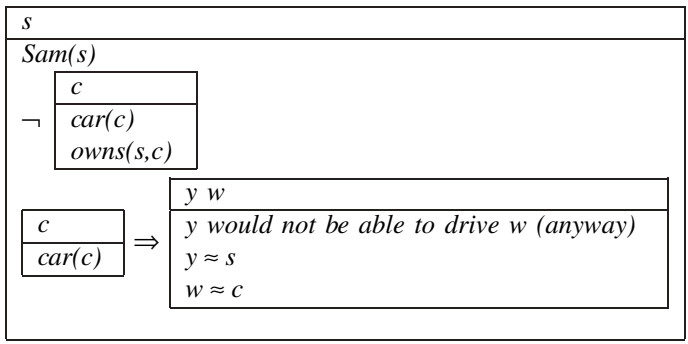
(98) $\chi =$ | c | / $car(c)$

Either choice leads to a proper DRS. If (98) is chosen, the result is equivalent to (99), where the DRS in (98) has replaced χ. Notice that the antecedent of the conditional contains a discourse variable which is accessible to the problematic condition '$w \approx c$', so the whole DRS is 'proper'. And either choice yields the right semantics. Roughly speaking, (99) will be true in any situation where Sam doesn't own a car, and where in every situation that includes a car c, she (Sam) would not be able to drive c. If χ is resolved as in (97) the interpretation is the same except that Sam's inability is restricted to cars that she owns, rather than cars in general.

(99)



We now not only have an account of why (89) is grammatical, and of what it means, we can also explain how NRCs can simultaneously take wide scope and be anteceded by (hence in the scope of) QNPs. Essentially, NRCs always take wide scope, but they can under certain circumstances, have their content put in the consequent of a conditional whose antecedent contains semantic material 'accommodated' from elsewhere. This will make it appear that they are in the scope of that material.

This gives a straightforward account of 'paradoxical' examples like (91) (repeated here).

(100) No properly qualified linguist, who would have (*ever) been taught phonetics as part of her training, would have made that mistake. (=(91))

As usual, the content of the NRC goes into the top box, which puts it outside the scope of the negative quantifier. Hence the NPI *ever* is excluded. However, accommodation can occur, introducing a conditional $\chi \Rightarrow NRC'$, where NRC' is the content of the NRC. If χ is resolved to something like 'x such that x is properly qualified and a linguist', the DRS that results will be along the lines of (101).

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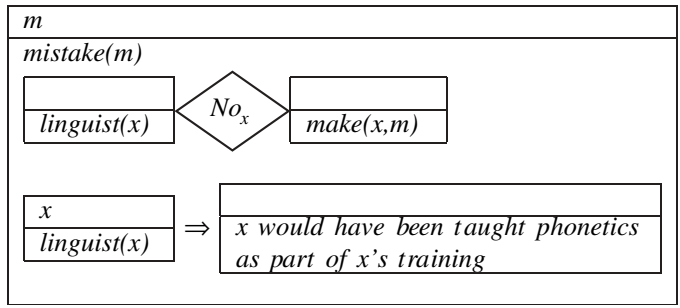
(101)



The truth conditions of this involve there being a mistake m, such that there is no x, where x is a linguist such that x would make m; and in every situation if x is a linguist x would have been taught phonetics. Again, these seem to be the correct truth conditions.[30]

This explanation is parallel to that which would be given for an example of cross-sentential binding, such as (102). Notice that here too accommodation provides an antecedent for the pronoun, but not a negative operator to license the NPI.[31]

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[30] In (101) I have used the same variable (x) in both the sub-DRS for 'No', and the accommodated sub-DRS (the one with ⇒). This is formally and technically impeccable, but potentially misleading. The uses of x in these sub-DRSs are independent, and one could replace x in either with another variable without anything being lost. The double use of x is potentially misleading because it may give the incorrect impression that *she* in the NRC is bound by the QNP *no linguist*. But the discourse variable associated with *she*/*her* is not negatively quantified. In fact, it is universally quantified, as it should be: it is actually bound by the x in the universe of the antecedent of this sub-DRS (i.e. the antecedent which was produced by accommodation). Strictly speaking, under this analysis, pronouns in NRCs are not bound by elements of the host sentence, the semantic link between them and their antecedents is established indirectly, via the 'copies' of the antecedents that are produced by accommodation.

[31] Notice that I am not offering an explanation for WHY this particular content is chosen for accommodation in these cases – I merely claim that it is similar for NRPs and normal pronouns, so that an explanation of the way accommodation works in the case of normal pronouns will carry over to NRCs. Notice also that examples involving NRCs and parallel examples with independent sentences are not always equivalent. For one thing, an NRC can introduce material for a subsequent anaphor in the host, which will preclude a paraphrase with an independent sentence. Compare:

(i) Sam, who had borrowed my copy of *Aspects*$_i$, returned it$_i$ today.
(ii) *Sam returned it$_i$ today. She had borrowed my copy of *Aspects*$_i$.

Grosu (2002) observes the following, suggesting that while the accommodation possibilities for NRCs and normal discourse anaphora may be similar, they are not identical:

(iii) At the party I saw few students. They were probably at home studying for the exam.
(iv) ??At the party I saw few students, who were probably at home studying for the exam.

Here, ordinary discourse anaphora seems to be able to pick up the COMPLEMENT of a set introduced by previous discourse (the previous discourse has introduced 'the students at the party', whereas the referent of *they* in (iii) is the students who were not at the party). I am not entirely sure I share Grosu's judgements here, but in any case, accommodation is

(102) No properly qualified linguist would have made that mistake. She would have (*ever) been taught phonetics as part of her training.

Notice, finally, that this treatment of NRCs is, from a theoretical point of view, 'cost-free' in that it does not involve any apparatus which is not independently required. The syntactic apparatus is required independently for RRCs; the machinery for giving NRCs wide scope is needed independently for proper names and indexicals; and the accommodation apparatus is needed for the treatment of ordinary pronouns.

This section has presented a syntactically integrated alternative to RO analyses of NRCs, with a view to countering their initial appeal. It is of course not the only syntactically integrated analysis available, and while the main aim of this paper can be served by adopting any of them, some brief discussion is in order. I will look at four analyses from the recent literature.

The analysis proposed here has a good deal in common with that in Del Gobbo (2003a), where NRPs are analysed as E-type pronouns. Now, the notion of an E-type pronoun is not one which is particularly easy to pin down, but it seems clear that the analysis given here is not an E-type analysis in any straightforward way. The typical use of an E-type pronoun is to pick out the (unique) entity or set of entities that satisfies some earlier description. For example, in *Few congressmen voted for Kennedy*, *and they were very junior*, the referent of *they* is the (unique, small) set of congressmen who voted for Kennedy. On a straightforward E-type analysis, an example like (93b) should be saying something about Sam's inability to drive the/a (unique) car that she does not own. In fact, as the analysis here predicts, it is actually about ALL cars (or all cars she owns). Similarly, E-type pronouns cannot have antecedents with *no*, cf. **No congressmen voted for Kennedy*, *they were very junior*. Hence an E-type analysis would predict that the analogous NRCs should be similarly impossible. But they are not, see (91)/(100) and the examples in (76).[32]

The analysis in Kempson (2003) is subject to similar objections. Kempson provides an analysis of NRCs and RRCs within the framework of Dynamic Syntax, one of whose goals is to account for the possibility of QNP antecedents for NRCs and for 'externally bound' pronouns inside NRCs (cf. examples like those in (75) and (76)). The analysis involves a form of scope extension, whereby the content of an NRC comes under the scope its

an inference process, and it is entirely possible that the inferential possibilities are different in the case of independent sentences and syntactically subordinate clauses. Moreover, making the antecedent more specific and the NRC more conditional improves things in cases like (v), so the following is certainly better:

(v) At the party I saw very few linguistics students, who would mostly have been too busy studying for the exam.

[32] The idea that NRPs are E-type pronouns also appears in Authier & Reed (2005). The same objections apply.

antecedent. This works satisfactorily with universally quantified antecedents, but it cannot deal with the 'paradoxical' examples discussed above, and gives the wrong results for cases where the antecedent is negatively quantified. Consider (91)/(100) again. On Kempson's account, the scope of *no* is extended to include the NRC. Hence it can apparently 'bind' the pronoun *her*. But this predicts that NPIs should be possible, which they are not, and it gives the wrong semantics. The pronoun in the NRC is not bound by a negative quantifier; rather it is interpreted as universally bound (the sense is roughly 'every properly trained linguist would have received this training'), as expected under the present analysis.

Potts (2003, 2005, 2007) provides an account of appositive NPs which can be applied directly to NRCs (see also Potts 2002a). The central idea is that appositives, including NRCs, contribute to a different 'dimension' of meaning from 'normal' linguistic content (Potts identifies the appositive dimension with Grice's 'conventional implicature'). The interpretation procedure treats the dimensions separately, which gives an account of the 'non-compositional' aspect of the interpretation of appositives (the effect that is achieved here by putting the NRC content directly into the top DRS). Since the account is syntactically integrated, grammatical interaction between NRC and host is unproblematic. However, a key idea of Potts' approach is that there is no interaction between appositive and 'normal' semantic content (more precisely, material can move from the 'normal' dimension to the 'appositive', but once it has moved it is entirely hidden and inaccessible from the normal dimension). This predicts that, for example, the content of an NRC should be invisible from outside the NRC during compositional interpretation. This is different from the approach taken here: here NRCs are treated non-compositionally by having their content put into the top box, but their content does not belong to a different dimension of meaning, and it is freely accessible during compositional processing of other phrases in the host clause. Such accessibility will be important in any 'content-based' grammatical process. For example, suppose, as is widely assumed, that VP-ellipsis is fundamentally a semantic operation. Without such accessibility, examples such as the following will be problematic (it is similar to (70b) above):

(103) Sandy, who brought a bottle of wine, was rude to everyone who didn't.

On the account given here, the content associated with *brought a bottle of wine* will be accessible in the normal way at the time when *everyone who didn't* is being processed. But under Potts' approach it will be invisible – *everyone who didn't* will not receive a full compositional interpretation.

Finally, De Vries (2006) presents an analysis of NRCs as a kind of free relative which forms a coordinate structure with its antecedent – the NRC

is a 'specifying conjunct', like an appositive NP, cf. *John, our boss* (see also De Vries 2002). De Vries assumes that NRCs (and other paratactic elements) are invisible to certain relations. In particular, they are not c-commanded by the antecedent (which would normally be the case, given De Vries' asymmetric theory of coordination), so they are opaque for syntactic licensing relations. This produces some of the 'wide scope' behaviour of NRCs, such as the exclusion of NPIs. However, it provides no account for the other phenomena described in section 2, e.g. the fact NRCs can take wide scope with respect to sentence negation and propositional verbs, or other respects in which they behave like independent clauses (e.g. having their own illocutionary force, and standing in discourse relations with their host clause) – cf. examples (13)–(21).

6. Conclusion

In this paper I have argued that the initial appeal of the 'radical orphanage' approach to NRCs is illusory. In particular, there is a large and varied body of evidence that is problematic for such an approach, and which is consistent with NRCs having an 'integrated' syntax, similar to that of RRCs. In the final section I have sketched how such an alternative, integrated approach can explain the main properties of NRCs, in particular, the differences between NRCs and RRCs. This account uses only pre-existing, independently motivated apparatus (specifically, 'wide scope' interpretation and accommodation), and provides a natural account of some apparently paradoxical properties of NRCs.

APPENDIX

Attested examples

An annotation like [A05/0573] means the example is from the British National Corpus (BNC), file A05 (which is typically in subdirectory A/A0), around line 573.

Attested examples of stacked NRCs

(104) This could be said with some emphasis of Chatterton, but not of Eliot himself, *who moreover survived*, *who grew to be famous*, *who did not kill himself*, though he was to wonder how one might set about dying. [A05/0573]

(105) … and Pauline, *who's next to me*, *who you'll probably talk to in a minute* … [KRL/2881]

(106) And then there was John Bennett Stanford, *who was a wealthy amateur*, *who was one of the people who pioneered the filming of the Boer War*. [KRH/0745]

(107) … all you told me was that Miss White was retiring but I hadn't to tell anyone, *which I haven't done*, *which I don't intend to do* … [KNS/255]

(108) Hartlepool pensioner Jack Howe, 75, of Welldeck Road, *who is a member of Stockton Camera club*, *who recently received the Meritorious Service Award of the Photographic Alliance of Great Britain*, has now been awarded the Fellowship of the Royal Photographic Society. [K4W/09028]

(109) What a tragedy it is that so many of our talented sixth formers, *who really would do well in your universities*, *who are dying to get there*, *who queue*, *fight*, *struggle*, *work hard to get there*, *who have tremendous talents*, are denied access, not because of lack of ability but perhaps because people don't realize what a great wealth of talent there is. [KRG/1584]

(110) … and Gruber traces it back, interestingly enough, to the arguments of a theologian, Sumner, *who later became an Archbishop*, *who Darwin took notes on his ideas when he was a student at Cambridge* … [KRH/3756]

(111) I found a couple of years ago two books written by a remarkable white English-speaking South African called Donald Woods, *who was a newspaper editor*, *who befriended and then championed a remarkable young black South African called Steve Beeko*, …. [KRH/4165]

(112) The example of this of course is the night time call out service, *which all parties support*, *which comes every year as a problem of funding*, do we want a full week service? [KGX/454]

(113) He finds himself stymied, 'unless we go to appeal, *which would be the Lands Tribunal*, *which could take up to nine months*' [and] I can't afford to. [K5M/04695]

(114) There was a peak of deaths, *which you can see quite clearly*, *which occurred during this period*. [KRE/513]

Attested Examples of extraposed NRCs

(115) She dropped to the ground and rolled under the house, bump, right into the *cobra*'s box, *which lashed angrily in reply*. [Donna Tartt, *The Little Friend*, Bloomsbury, 2002]

(116) I was also given *a Jubilee mug* at school, *which I still have*. [BN6/0630]

(117) And that got me into the last three so I had to *do it all again* at the Barbican *which I think was to see if I could fill that theatre with enough presence and vocal range*. [A06/1696]

(118) I had tied *a three inch strip of webbing* between the shafts, *which I used as a harness*. [AT3/1532]

(119) When I was ten, my Dad bought me *a guitar* for Christmas, *which I'd asked for*. [C9M/2185]

(120) Mother knitted *a white cotton quilt* before she married, *which I treasure to this day*. [BN6/1145]

(121) ICE asks for *five days*, say 35 hours, *which is the same number as suggested by the RIBA for structured/practice-related CPD*. [APX/1454]

(122) This is not simply to force people into speaking blank verse, but to see how a person responds to the essential humanity of a character – for *Shakespeare*, of all the classical writers, is probably the most human, *whose work is blessed with both grandeur and the common touch*. [A06/244]

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