

# Right Node Raising: Evidence from ‘Rule Interaction’

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## 1. Introduction

Right node raising (RNR) is an atheoretical term used to describe sentences like those in (1):<sup>1</sup>

- (1) a. I could have planned, and Petra could have hosted, a huge party.
- b. Gianni prefers decorous, and I prefer raucous, get-togethers.
- c. I always knew, Eben sort of suspected, and Lyles eventually proved, that they were all in cahoots.

In general, the characteristics of RNR are as follows: when identical elements (e.g. constituents) would appear rightmost in every conjunct of a conjoined sentence, the first occurrence(s) are absent. There are two main derivations proposed for RNR structures. First, RNR may be an instance of across-the-board (ATB) rightward movement: both copies of the target leave their conjuncts and are right-adjoined higher in the structure. Second, there are several *in-situ* approaches: ellipsis or deletion, and multiple dominance. In an ellipsis account, the first copy of the target is deleted under identity with the second copy of the target, which remains *in-situ* in the second conjunct. In a multiple dominance account, which we will not consider here, there is only one copy of the target, which is dominated by a mother in each conjunct.

This paper attempts to distinguish between ellipsis and movement accounts of RNR, based on their respective explanatory power for particular types of data. Specifically, it focuses on what the title calls ‘rule interactions,’ that is, sentences (both grammatical and not) in which RNR co-occurs with another syntactic operation, such as pseudogapping or VP topicalization. When necessary, we will take a recent deletion account of RNR (Hartmann 2000) and a recent ATB movement account (Sabbagh 2007) as representative of these two camps. For reasons of space, this paper will not delve into the details of the derivations proposed in each of those works, but rather on the resulting structural characteristics, which are largely consistent across various similar explanations. The interested reader is directed to Turon (2007), which provides this fuller, more detailed argument.

## 2. Rule interaction I

### 2.1 RNR and VP ellipsis

In this section, we consider the so-called ‘rule interaction’ data shown in (2). These data first appeared in Abels (2004), which argues that this paradigm is evidence for an ellipsis account of RNR. This section presents that argument. For both RNR and VP ellipsis, a pair of coordinated clauses with some identical material is an appropriate environment. Here, we have a direct object suitable for RNR, due to its right-peripheral position and identity in both clauses. The verb in both clauses is also identical, so as to allow its absence (2b). Abels finds that even in sentences where either RNR or VP ellipsis may occur independently of each other (2a)-(2b), their co-occurrence is prohibited (2c).

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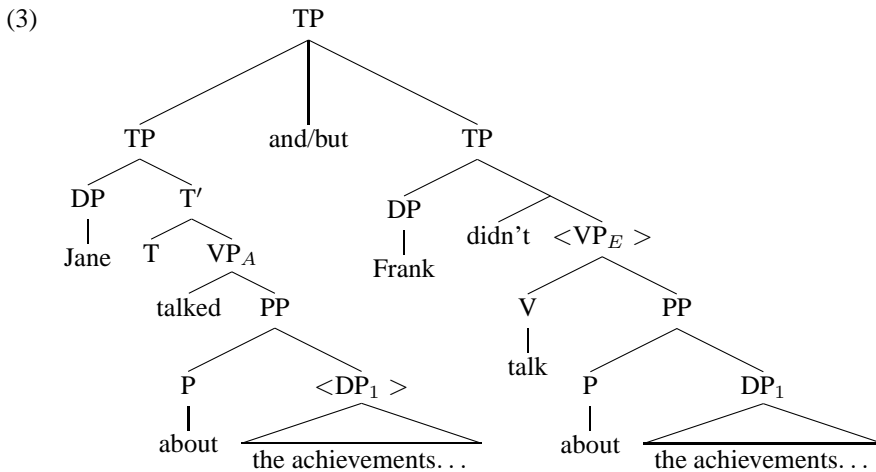
<sup>1</sup>I am indebted to Jason Merchant and Chris Kennedy for suggestions, comments, and advice. This work was presented at WCCFL 26; I am grateful to the audience there for feedback. Mistakes and inaccuracies are my own.

(2) *VP Ellipsis Paradigm*

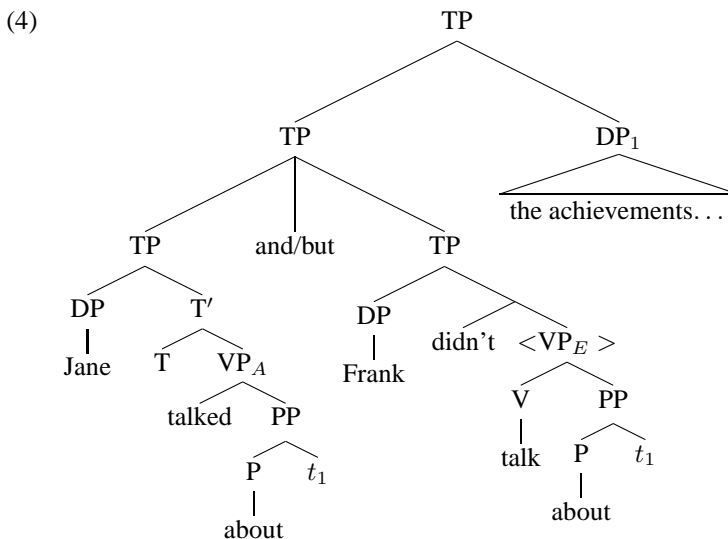
- a. RNR: Jane talked about and/but Frank didn't talk about the achievements of the syntax students.
- b. VPE: Jane talked about the achievements of the syntax students and Frank didn't.
- c. VPE & RNR: \*Jane talked about and/but Frank didn't the achievements of the syntax students.

(Abels 2004:6)

In an ellipsis account of RNR, the target *the achievements of the syntax students* in the first clause is deleted under identity with the target in the second clause, which remains in-situ. Then, if VP ellipsis were to apply to the second clause, the only remaining copy of the target would be deleted along with the verb, as shown in (3). Thus, the ellipsis account correctly predicts that (2c) would not be generated.



In a movement account of RNR, on the other hand, the target is moved rightward ATB and adjoined at the right periphery somewhere higher in the structure. Then, if VP ellipsis were to occur in the second clause, only the verb and the trace of the target would be deleted. The moved target avoids deletion because it is no longer dominated by the verbal projection which VP ellipsis targets, as shown in (4). Thus, the movement account incorrectly predicts that (2c) is generable.



## 2.2 Reanalysis as pseudogapping

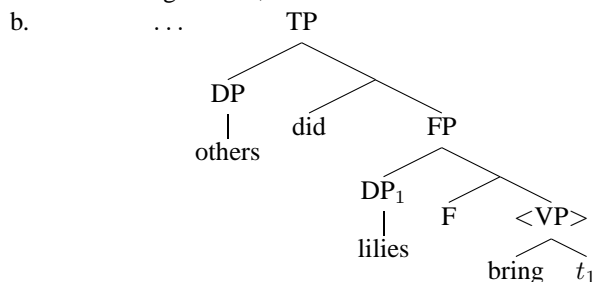
This paper argues that Abels (2004) goes awry in its attempt to argue from an ungrammatical string, claiming that RNR via ellipsis, followed by VP ellipsis, will not generate (2c). This is true – as (3) shows, that combination of operations generates (5), which fails to satisfy recoverability, and is thus ruled out.

- (5) \*Jane talked about and/but Frank didn't.

So far, however, this argument cannot say why (2c) might be ungrammatical: it only claims that RNR via ellipsis, followed by VP ellipsis, does not happen to generate it. The next question to ask is simple: what other process(es) might generate (2c), and why might they result in ungrammaticality? I argue that what Abels (2004) calls VP ellipsis is actually pseudogapping, and that its ungrammaticality stems from independent factors related to pseudogapping.

In this paper, we will assume that pseudogapping involves some leftward remnant movement to a position higher than the VP, followed by (something like) VP ellipsis. For example, Lasnik (1999) proposes that the remnants move to spec-Agr<sub>o</sub>P, as direct objects do for case assignment purposes anyway. In another version, the remnants move leftward to a focus position, which is perhaps made available for this purpose. One such proposal is found in Merchant (to appear), from which (6) is adapted.<sup>2</sup>

- (6) a. Some brought roses, and others did lilies.



(Merchant (to appear):10, adapted)

Pseudogapping requires that the remnant must contrast with material in the antecedent clause (Kuno (1981), Johnson (2001), and others). If the two direct objects are identical, pseudogapping is disallowed (7).<sup>3</sup> Jayaseelan (2001) notes that this requirement falls out if remnant movement is indeed to a focus position. It is this remnant contrast condition that becomes important in our consideration of the data in (2c).

- (7) \*Georgia enjoys chili more than Albert does \_\_ chili.

## 2.3 RNR and pseudogapping

Returning to our data from (2c), we are ready to examine the claim that such a sentence displays ungrammatical pseudogapping, rather than VP ellipsis, as Abels (2004) claims. First, notice that the basic structure of (2c), repeated below, matches that of a pseudogap: a verb identical in two conjuncts is deleted, but leaves as remnants an auxiliary and some VP-internal elements (here, the direct object).

- (2c) \*Jane talked about and/but Frank didn't \_\_ the achievements of the syntax students.

However, one characteristic is lacking: the remnant contrast. There is nothing in the first conjunct with which *the achievements of the syntax students* can contrast. When this is provided, the second conjunct may indeed be part of a licit pseudogapping structure, as shown in (8a). It improves further if we make several minimal changes which have been shown to make pseudogapping more felicitous (8b) (Levin 1985).

<sup>2</sup>For Merchant, pseudogapping is deletion of vP, rather than VP. For simplicity we will continue to reference VP ellipsis as the second step in pseudogapping.

<sup>3</sup>However, VP ellipsis is fine: *Georgia enjoys chili more than Albert does.*

- (8) a. Jane discussed the failures of the phonology students, but Frank didn't the achievements of the syntax students.  
 b. Frank discussed the failures of the phonology students more than he did the achievements of the syntax students.

In fact, the remnant in the second conjunct of (2c) is also the target of RNR – which has as a requirement that it be *identical* between the two conjuncts. Thus we come to the crux of the ungrammaticality of (2c): a single string cannot serve both as the remnant of pseudogapping and the target of RNR, because in one case it must contrast with an antecedent, and in the other case it must be identical to an antecedent. This is the source of the ungrammaticality – not the interaction of RNR and VP ellipsis.

This makes a prediction: if we can construct a sentence in which the requirements of both RNR and pseudogapping are fulfilled, it should be grammatical. What would this sentence look like? The main verbs in both conjuncts must be identical, so that the second may be deleted by pseudogapping. Some part of the remnant must contrast between the two conjuncts, to fulfill the remnant contrast condition of pseudogapping. Finally, for RNR, there must be some material on the right-periphery that is identical in the two conjuncts. One such sentence is provided in (9a) before either operation has occurred. The right-peripheral noun *cookie cutters* acts as the target for RNR, whereas the contrasting adjectives (*reindeer-shaped* and *Santa-shaped*) remain in both clauses and provide the remnant contrast for pseudogapping. When both RNR and pseudogapping occur, the sentence in (9b) results.

- (9) a. Some would have chosen the reindeer-shaped cookie cutters, and others would have chosen the Santa-shaped cookie cutters.  
 b. Some would have chosen the reindeer-shaped, and others would have the Santa-shaped, cookie cutters.

Examples that are different structurally, but fulfill these same requirements, also demonstrate that RNR and pseudogapping can co-occur and produce grammatical sentences. For example, in (10a), a coordinated sentence with contrasting direct objects and identical VP-internal PPs may undergo both pseudogapping and RNR. Finally, (10b) shows a coordinated sentence with two double object constructions, whose right-peripheral direct objects are identical and whose indirect objects contrast.

- (10) a. *Contrasting direct objects and identical PPs*  
 Some should put sprinkles, and others should frosting, on their cookies.  
 b. *Contrasting indirect objects and identical direct objects*  
 Some can give the director, and others can the choir, trays of cookies.

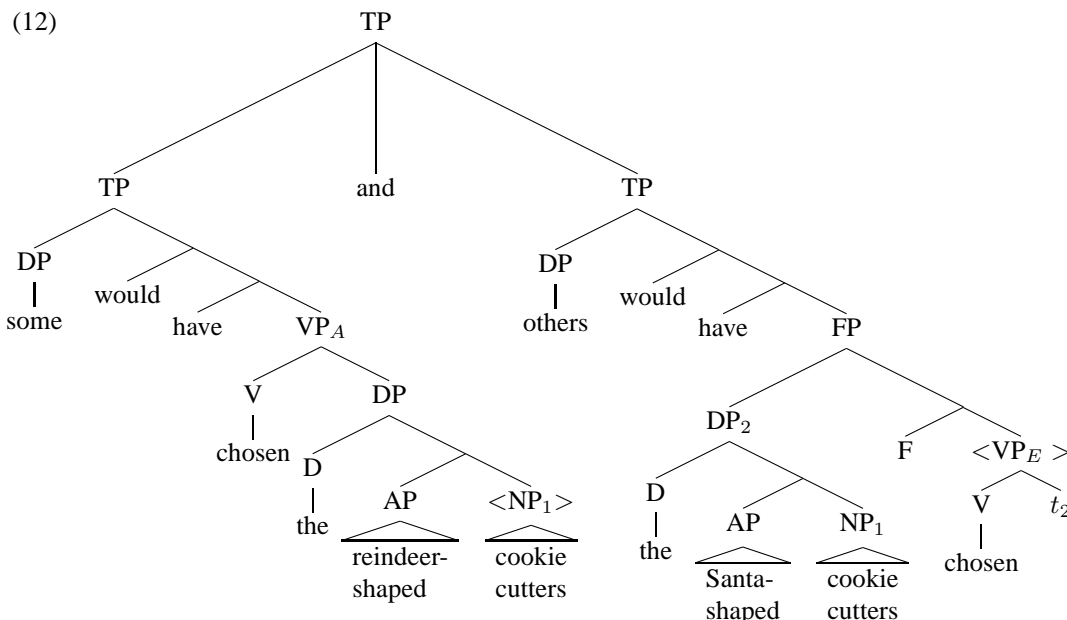
There is further evidence that the missing verb in the Abels data is not due to VP ellipsis, but rather to pseudogapping. VP ellipsis and pseudogapping have in common that the ellipsis must leave a licenser (here, an auxiliary) in the structure, but differ in whether they leave a remnant. *Gapping*, on the other hand, has in common with pseudogapping the presence of a remnant. In a gapping structure, however, there is no auxiliary present. If we find that in examples like the ones we have been considering that we may do away with the auxiliary verb, thereby forming a gapping structure<sup>4</sup>, then we have further evidence that such structures are not formed by VP ellipsis. That is, it is plausible that RNR structures with a missing verb could be derived by VP ellipsis (we would have to account for the contrast requirement some other way). However, it is not possible that structures such as (11) might be derived by VP ellipsis, because VP ellipsis requires an auxiliary to command the ellipsis site. Thus, the gapping structures below are evidence for pseudogapping in the structures above.

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<sup>4</sup>Analyses of gapping can differ dramatically from analyses of pseudogapping, and it is not thought that the only difference between the two constructions is the presence or absence of the auxiliary (i.e. slightly higher or lower deletion). However, their distributions do have significant overlap, and so for our purposes it will suffice to 'convert' a pseudogapping example into a gapping example by leaving out the auxiliary. On gapping, see Johnson (2006) and references therein.

- (11) a. Some would have chosen the reindeer-shaped, and others the Santa-shaped, cookie cutters.  
 b. Some should put sprinkles, and others frosting, on their cookies.  
 c. Some can give the director, and others the choir, trays of cookies.

We have argued that the data from Abels (2004) is actually RNR and pseudogapping, rather than RNR and VP ellipsis. In so doing, we have shown that such sentences may be grammatical if all the necessary conditions are met. Now, however, the argumentation about RNR based on these data must take a new form; we will examine the ways in which RNR and pseudogapping combine, looking to see which account(s) of RNR *can* co-occur with pseudogapping, whereas before the desired result was that RNR would *not* be able to co-occur with VP ellipsis. We first consider what an ellipsis account of RNR would predict for the sentence in (9b), as shown in (12).

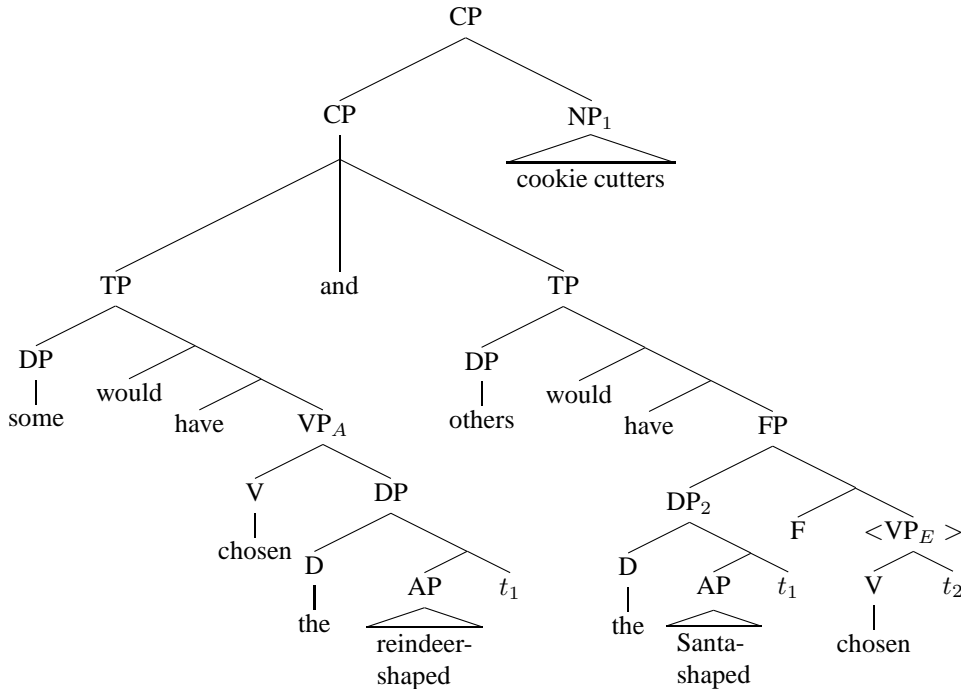


In this structure, we see that the DP *Santa-shaped cookie cutters* in the second conjunct has moved up the tree to spec-FP, the focus position. The pseudogapping contrast is found in *reindeer-shaped* and *Santa-shaped*. This requirement satisfied, the trace-containing  $VP_E$  can be deleted under identity with  $VP_A$ , thus forming a pseudogap. The RNR target *cookie cutters* is also deleted in the first conjunct; the derivation is complete. Thus, an ellipsis account of RNR correctly predicts the generation of (12).<sup>5</sup>

We now turn to the prediction made by a movement account of RNR.

<sup>5</sup>It may be objected that the target is in some sense no longer right-peripheral, which is often claimed to be a requirement for RNR. However, in Hartmann (2007), this requirement is shown to be something of an illusion and does not prove to be problematic in this derivation (Turon 2007).

(13)



Pseudogapping occurs as before, the remnants moving leftward to a focus position above the VP. Meanwhile, the RNR target moves rightward across the board, out of the pseudogapping remnant to attach to the matrix CP as shown. Turon (2007) shows how the recent exploration of ATB RNR in Sabbagh (2007) allows for these simultaneous leftward and rightward movements to occur without giving rise to ordering contradictions at spell-out.

In the end, it appears that data of the type in (9b) is unable to distinguish between the two accounts of RNR.

### 3. Rule interaction II

#### 3.1 RNR and VP topicalization

(14) *VP topicalization paradigm*

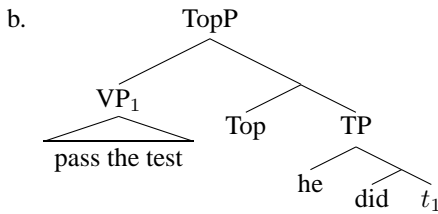
- a. RNR: She claimed she could speak, and she can certainly read, ancient Greek.
- b. VPT: She claimed she could speak ancient Greek, and read ancient Greek she certainly can.
- c. VPT & RNR: \*She claimed she could speak, and read ancient Greek she certainly can.

In this data, we have a coordinated sentence with identical direct objects which can serve as targets for RNR (14a). Additionally, the VP in the second conjunct is eligible to undergo VP topicalization, also known as VP preposing (14b). However, these two syntactic operations are mutually exclusive; an attempt to combine them in (14c) yields ungrammaticality. In this section we explain this pattern by examining how RNR interacts with VP topicalization, focusing on how ATB movement and ellipsis analyses of RNR differ in their predictions.

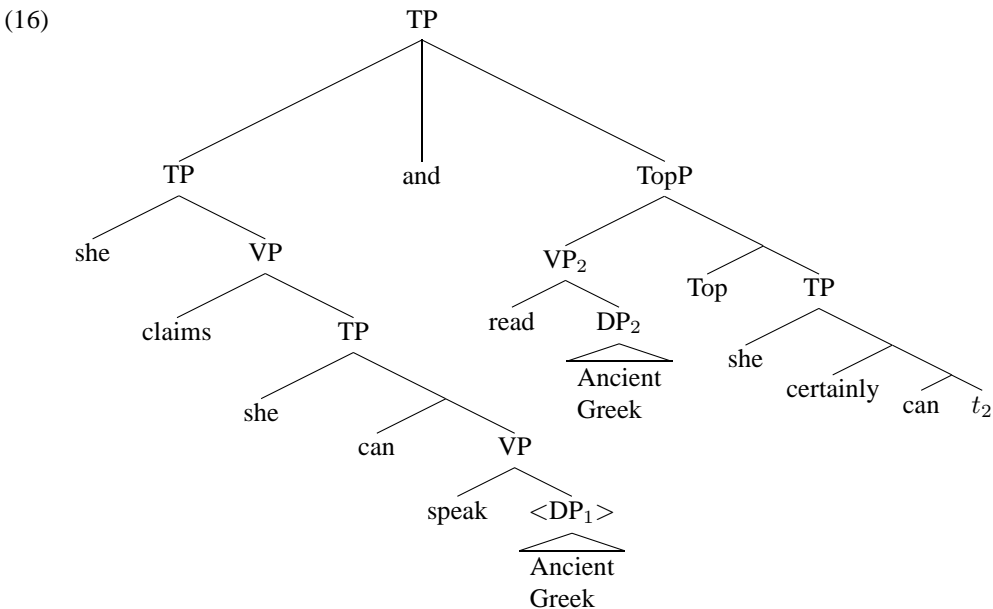
Following Janßen (2000), we take VP topicalization to be the VP undergoing A'-movement to a position at the left periphery. Although the details of such movement are unimportant here, we follow Rizzi (1997) in assuming a left-peripheral topic head Top. Topicalization in English can be movement to spec-TopP, giving a structure like (15).

- (15) a. They all said that John would pass the test, and pass the test he did.

(Janßen 2000:224)



Now we consider how this VP movement might interact with RNR. Since the attempted combination of these operations results in ungrammaticality, a positive result is one that does not allow (14c) to be generated. We first consider (14c) under an ellipsis account of RNR, a putative tree for which appears here:

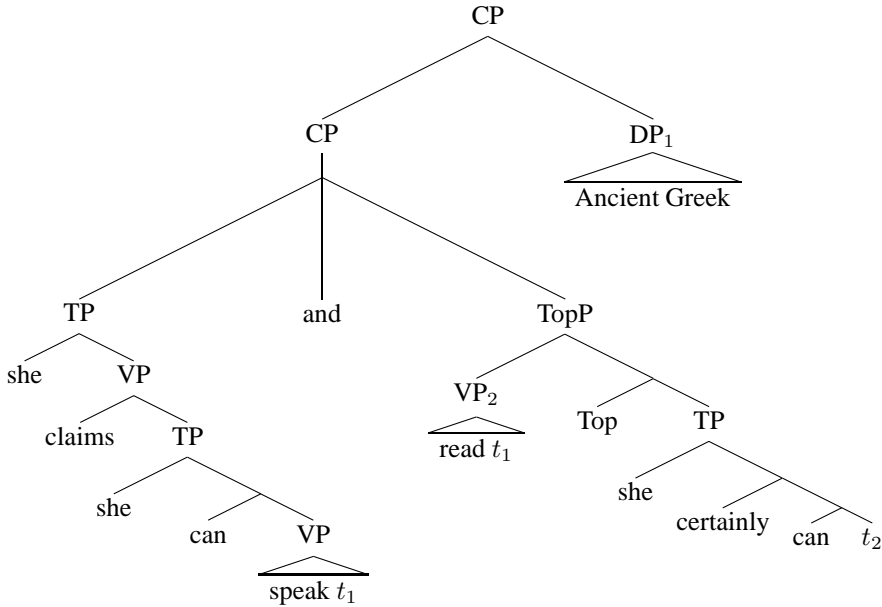


In this structure, the VP in the second conjunct has topicalized as usual. Then, for RNR via ellipsis to occur, all that must happen is for the target, *Ancient Greek*, to be deleted from the first conjunct, as shown. Again, for Hartmann (2000), the non-right-peripheral position of the target is not enough to rule out its being deleted. Thus, an ellipsis account of RNR erroneously allows this sentence to be generated.

We turn now to the prediction made about (14c) by a movement account of RNR. In short, RNR on this account does not – in fact, cannot – generate this example. Instead, it generates the grammatical sentence shown in (17):<sup>6</sup>

<sup>6</sup>Thanks to Chris Kennedy for suggesting I look at this sentence.

- (17) a. She claimed she could speak, and read she certainly could, Ancient Greek.  
 b.



Here, the leftward movement of VP topicalization and the rightward movement of RNR have split the VP into parts, so to speak, with the trace-containing VP at the top of the second conjunct, while the target of RNR (that is, the rest of the VP) has moved rightward ATB out of both conjuncts to adjoin to the matrix CP. Again, the interested reader is referred to Turon (2007), in which it is shown that constraints on linearization allow such a structure to be generated without any problems.

Finally, notice that (17a) is problematic for an ellipsis account of RNR. Neither of the following is grammatical, showing that the verb could not have moved leftward by itself (as opposed to the trace-containing VP):

- (18) a. \*She claims she can speak Ancient Greek, and read she certainly can Ancient Greek.  
 b. \*Read she certainly can Ancient Greek.

If the target *Ancient Greek* remains in-situ in the second conjunct (as in an ellipsis account), then in order to derive (17a), some independent rightward movement would have to occur. More specifically, this movement would have to be limited to a situation in which RNR was also occurring (because of (18a)), which is implausible. Thus, as regards the RNR-VP topicalization data, an ellipsis account of RNR generates ungrammatical instances, as in (16), and fails to generate grammatical instances like (17), whereas an ATB movement account makes the correct predictions in both cases.

## 4. Conclusion

In this paper we have examined several paradigms of ‘rule interaction’ data, testing the flexibility and predictive power of two important accounts of RNR. We have concluded that the ATB movement account makes better predictions than an ellipsis account. However, the evidence is far from conclusive. It is hoped that this paper has added to the already vast collection of valuable and contentious RNR data.

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