WYSIWYG RNR

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CUNY Syntax Supper February 7th 2012

1. INTRODUCTION

- There is a dilemma in studies of Right Node Raising (RNR).
- None of the current analyses can possibly work on their own.
- Nor can they work together.
- I offer a way out.

(1) Ivan bought, and Ivy read, the collection of short stories.

(2) 

```
and

&

T & T

&

T read

T bought

Ivan bought

Ivy read

read the collection...
```
2. What is RNR?

Range of shared elements:

(3) Ivan said, and Mary denied, that Iris had been there.
(4) Ivan said that Mary, and Ivy said that John, should read the book.
(5) Ivan should, and Ivy must, attend the class.
(6) Ivan sold, and Ivy donated, a book to the school.
(7) Ivan donated a book, and Ivy donated a chalkboard, to the school.

Cross-linguistic range:

German:

(8) *Hans soll und Ute muss heimfahren*  
Hans should and Ute must home.go  
‘Hans should, and Ute must, go home.’

Tagalog:

(9) *Hindi nagluto’ ng bigas at hindi kumain ng isda ang parehong babae*  
not cooked erg rice and not ate erg fish abs same woman  
‘The same woman did not cook rice and did not eat fish.’ (Sabbagh, 2008)

Mandarin:

(10) *John hui dan Mary bu-hui mai na-ben shu*  
John will but Mary not-will buy that-CL book  
‘John will, but Mary won’t, buy that book.’

Hindi:

(11) *Shiti-ne seb aur Ivan-ne nashpati khay-ii*  
Shiti-Erg apple(Masc.) and Ivan-Erg pear(Fem) ate-Fem  
‘Shiti [ate] a apple, and Ivan ate a pear.’
RNR:
○ is cross-linguistically common.
○ can involve phrases of any category.
○ deserves an analysis that general enough to render the above statements unsurprising.

3. Current Accounts

There are three main contemporary accounts of RNR: Deletion, Movement, and Multidominance.

3.1. Deletion. The sentence in (15) is derived from the sentence in (12).¹

(12) Ivan bought the short stories and Ivy read the short stories.
(13) Ivan bought [the short stories] and Ivy read [the short stories].
(14) Ivan bought [the short stories] and Ivy read [the short stories].
(15) Ivan bought and Ivy read the short stories.

3.1.1. Advantages. RNR is impervious to islands:

(16) John knows a man who sells, and Fred knows a man who repairs, washing machines.

is derived from:

(17) John knows [island a man who sells washing machines] and Fred knows a man who repairs washing machines.

o RNR licenses Vehicle Change

Ellipsis

(18)    a. *Mary \[loves\, John_i\] and he_i thinks Sally does \[love\, John_i\] too.
    b. ✓ Mary loves John_i and he_i thinks Sally does \[love\, John_i\] too.

RNR

(19)    a. *He_i hopes that Susan won’t \[fire\, John_i\], but the secretary knows that she will \[fire\, John_i\].
    b. ✓ He_i hopes that Susan won’t \[fire\, John_i\], but the secretary knows that she will fire John_i

3.1.2. Disadvantages. Relational modifiers allow more readings than deletion predicts.

(20)    Ivan wrote, and Ivy read, similar books.
(21)    \textit{as far as LF is concerned}: Ivan wrote similar books and Ivy read similar books.

o The Backwards Anaphora Constraint (Ross 1967 and others) essentially precludes anaphora from preceding their antecedents.

(22)    I didn’t drink wine because Ivy told me not to
(23)    *I didn’t because Ivy told me not to drink wine.

Taking ellipsis to be a type of anaphora, we find systematic violation in RNR.

o As noted by Boskovic and Franks (2000), there is no scope ambiguity in (24), only surface scope is available.

(24)    Some delegate represented every candidate and nominated every candidate.
(25)    Some delegate represented every candidate.
however:

(26) Some policeman arrested [every teenager who was near the crime scene] but some judge ended up releasing every teenager who was near the crime scene.
(27) Some policeman arrested, but some judge ended up releasing every teenager who was near the crime scene.

- The ellipsis that accounts for vehicle change is the same that cannot handle the scope facts.

3.2. **Movement.** Under movement analyses, the shared element across-the-board extraposes to the right.\(^2\)

(28)

\[
\text{XP} \quad \text{XP} \\
\text{book} \quad \text{book}
\]

This handles the relational modifier facts, but cannot straightforwardly handle the island or vehicle change facts.

3.2.1. **Further Disadvantage.** Movement accounts also fail to capture the fact that prepositions can be stranded in RNR in languages where this is otherwise not possible.

(29) *Wem sass die Katze auf?*  
whom sat the cat on  
Who did the cat sit on?

---

The cat sat on, and the dog sat under, the fat man.

Also, extraposition of the object of a preposition is normally banned in English, but allowed in RNR.

*The cat sat on yesterday the fat man.
The cat sat on, and the dog sat near, the fat man.

The movement that accounts for the scope facts is the same that cannot handle the movement restrictions.

3.3. **Multidominance.** Under Multidominance (MD) analyses, the shared element is merged into both conjuncts simultaneously, though it is only pronounced in the latter.³

MD accounts can capture the islands facts, but cannot handle vehicle change facts in any straightforward way.

³ see McCawley, 1982; Phillips, 1996; Wilder, 1999; de Vos and Vicente, 2005; Gracanin-Yuksek, 2007; Bachrach and Katzir, 2009; Grosz, 2009; Larson, 2009
3.3.1. *Further Disadvantages.* MD cannot account for the fact that the binding principles seem to be conjunct sensitive.

(34)  
\[ \text{a. John}_i \text{ didn’t, and Mary couldn’t, shave him}_i. \]
\[ \text{b. *Mary didn’t, and John}_i \text{ couldn’t, shave him}_i. \]

similar facts hold for NPIs

(35)  
\[ \text{a. Ivan bought, but Ivy didn’t read, any books.} \]
\[ \text{*Ivan didn’t buy, but Ivy read, any books.} \]

○ The Multidominance that accounts the island facts is the same that cannot handle the asymmetry facts.

3.4. **Summary.** We can describe their failures in a chain of sorts:

1. Deletion can handle vehicle change and island facts but not scopal facts.
2. Movement can handle scopal facts but not island facts.
3. Multidominance can handle island facts but not the asymmetrical or vehicle change facts.

○ The virtue of each approach is its own vice. What you gain by one approach entails being unable to account for something else.

4. **An eclectic account**

No single current analysis can account for the entire range of data. We are left with two options:

○ None of the analyses are correct.  \( \text{or} \)

○ More than one analysis is correct, each in its limited purview, and duties are shared such that all the data are accounted for.
I argue for the former conclusion.

4.1. **How to test for an eclectic approach.** A Recipe (Barros and Vicente (2011)\(^4\))

1. Take a sentence that unambiguously marks a derivation requiring ellipsis.
2. Take a sentence that unambiguously marks a derivation requiring MD.
3. Create a test sentence that contains both the prompts for ellipsis and MD.
   - If the result is unacceptable, neither account can produce both prompts and both accounts are needed.
   - If the result is acceptable, then one (or both) of the analyses is superfluous.

4.2. **Let’s try this.**

   - Prompt 1: Morphological Mismatch (Ellipsis only)
     (36) Alice has already, and Iris wants to, work on binding theory.
     (37) Alice has already [worked on binding theory], and Iris wants to, work on binding theory.

   - Prompt 2: Relational Modifiers (non-ellipsis)
     (38) Ivan wrote, and Ivy read, different books.
     (39) *as far as LF is concerned:* Ivan wrote similar books and Ivy read different books.

   - Prompt 1 + Prompt 2 =
     (40) Alice must, and Iris ought to be, working on different topics.

---

\(^4\)See also Larson 2012 for use of this test with the results shown here in more detail.
4.3. **Another test.**

- Prompt 1: Vehicle Change (Ellipsis only)

(41) She$_i$ thinks that he must, but Bob fears that he won’t, come up with a topic that satisfies Alice$_i$.

- Prompt 2: Relational Modifiers (non-ellipsis)

(42) Ivan wrote, and Ivy read, different books.

- Prompt 1 + Prompt 2 =

(43) She$_i$ thinks that she absolutely must, and Bill fears that he won’t, present different topics to Alice’s$_i$ supervisor.

4.4. **One more time.**

- Prompt 1: Morphological Mismatch (Ellipsis only)

(44) Ivan must, and Ivy ought to be, working on the project.

- Prompt 2: High-scoping shared material (non-ellipsis)

(45) Some woman hates, and some man loves, every dog in the pound.

- Prompt 1 + Prompt 2 =

(46) Some woman must, and some man ought to be, helping every student.

4.5. **Summary.**

- Each current account has fatal flaws that stem from its saving grace.

- They cannot work together to avoid their flaws.

- There is still one option left: they are all wrong.
5. A way out

(47) Ivan bought, and Ivy read, the collection of short stories.

(48)

\[
\begin{array}{c}
\& \\
\& \\
T \quad \text{and} \quad T \\
T \quad \text{bought} \quad T \quad \text{read} \\
\text{Ivan} \quad \text{bought} \quad \text{Ivy} \quad \text{read} \\
\text{read} \quad \text{the} \quad \text{collection...}
\end{array}
\]

Envision a generative system free to create inchoate structures. Merge applies totally blindly

5.1. **Advantages.** The above representation avoids the shortcomings of the previous analyses:

1. The shared material can be island-internal

2. There is a single instance of the shared material.

3. The shared material is not c-commanded by anything in the first conjunct.

6. **‘Asymmetrical’ C-command**

There is ample evidence that the first conjunct bears little syntactic relation to the shared material.

We can now account for the vehicle change effects from the previous section.
(49) He\textsubscript{i} hopes that Susan won’t, but the secretary knows that she will, fire John\textsubscript{i}.

If the co-indexed expression finds itself instead in the second conjunct, the sentence is no longer acceptable (50).

(50) *The secretary hopes that Susan won’t, but he\textsubscript{i} knows that she will, fire John\textsubscript{i}.

- As seen above with principle C: Principle B.

(51) John\textsubscript{i} didn’t want to, and Mary couldn’t, shave him\textsubscript{i}.

(52) *Mary didn’t want to, and John\textsubscript{i} couldn’t, shave him\textsubscript{i}.

- Principle A.

(53) *John\textsubscript{i} hates, but Mary\textsubscript{j} likes, himself\textsubscript{i}.

(54) Mary\textsubscript{j} likes, but John\textsubscript{i} hates, himself\textsubscript{i}.

- Crossover Effects

  Strong-crossover effects are felt when the quantifier is c-commanded by a co-indexed pronoun.

(55) He likes each boy.

When the pronoun is put in the first conjunct of a RNR sentence, we can turn a strong-crossover sentence into a weak one:

(56) no possible co-varying reading
He selected each boy’s fathers day present.

(57) possible co-varying reading
He selected, but Sally bought, each boy’s fathers day present.
Number agreement is conjunct sensitive.\(^5\)

(58) Bill is happy that Iris, and James is happy that his parents, like reading fiction.

(59) *Bill is happy that his parents, and James is happy that Iris, like reading fiction.

Morphological case also shows this asymmetry:

(60) *Johannes kennt und Ute vertraut den alten Mann.
Johannes knows-Acc and Ute trusts-Dat the.Acc old man
‘Johannes knows, and Ute trusts, the old man.’

(61) Johannes vertraut und Ute kennt den alten Mann.
Johannes trusts-Acc and Ute knows-Dat the.Acc old man

There is scant evidence that the first conjunct is in a syntactically direct relation with the shared material.

7. Linearization

In this section I will compare the linearization schemes of the current approaches to that of the proposed approach.

7.1. Deletion. Aside from pure stipulation, there is one formalized account of which conjunct undergoes deletion. Ha (2006) posits an \(E_{RNR}\) feature that is affixed to the head of whatever is to be elided. It enters into an Agree relationship with the C head and deletion occurs:

\[
\begin{align*}
(62) & \quad [CP \ C [TP \text{Ivan bought} [E_{RNR} \text{the newspaper}] [\kappa_P \text{and} [TP \text{Ivy read} [E_{RNR} \text{the newspaper}]]]]] \\
& \quad \text{Agree} \\
(63) & \quad [CP \ C [TP \text{Ivan bought} [E_{RNR} \text{the newspaper}] [\kappa_P \text{and} [TP \text{Ivy read} [E_{RNR} \text{the newspaper}]]]]]
\end{align*}
\]

\(^5\)For those who do not allow ‘cumulative agreement’ like in Grosz 2009).
But what of more than two conjuncts? How can any other conjunct have a portion of itself elided?

(64) Iris saw the newspaper and Ivan bought the newspaper and Ivy read the newspaper.

(65) $[CP C [TP Iris saw [ERNR the newspaper] [KP and [TP Ivan bought [ERNR the newspaper] [KP and [TP Ivy read [ERNR the newspaper]]]]]]$

(66) *?Iris saw, and Ivan bought the newspaper, and Ivy read the newspaper.


Given two (simplified) sub-trees not yet coordinated, like in (67) below, the two instances of John are ordered like in Fox and Pesetsky (in a phase-based, multiple spell out system) as (50a) and (50b) respectively (where “>” denotes “precedes”).

(67) \[
\begin{align*}
\text{hears} & \quad \text{sees} \\
\text{Ivan} & \quad \text{Ivy} \\
\text{hears} & \quad \text{sees} \\
& \quad \text{John} \\
& \quad \text{John}
\end{align*}
\]

(68) a. $Ivan > \text{hears} > John$

b. $Ivy > \text{sees} > John$

(69) \[
\begin{align*}
& \quad \&P \\
\text{hears} & \quad \&' \\
\text{Ivan} & \quad \text{sees} \\
\text{hears} & \quad \text{John} \\
& \quad \text{Ivy} \\
& \quad \text{sees} \\
& \quad \text{John}
\end{align*}
\]
One has to abandon the LCA if this is to work out though. An account that avoids this is to be preferred.

7.3. Multidominance.

The right TP c-commands the left one and as such precedes it. This precedence relation extends to everything dominated by the respective TPs. This produces the following orderings (of many)

\( Ivy > bought \)
(73) \(\textit{the book} > \textit{the book}\)

Again, this violates the LCA and it would need to be altered (as in Wilder, 1999). We can avoid this alteration though, as we will see below.

7.4. **The WYSIWYG Account.** We can avoid altering the LCA and the other contortions of the other accounts.

The end result of a RNR structure built under the proposed analysis is (74):

(74)

\[
\begin{tikzpicture}
  \node {&} \edge[roof] \node {\&} \edge[roof] \node {T} \edge[roof] \node {T} \edge[roof] \node {&} \edge[roof] \node {T} \edge[roof] \node {T} \edge[roof] \node {and} \edge[roof] \node {T} \edge[roof] \node {T} \edge[roof] \node {bought} \edge[roof] \node {bought} \edge[roof] \node {Ivan} \edge[roof] \node {Ivy} \edge[roof] \node {read} \edge[roof] \node {read} \edge[roof] \node {the} \edge[roof] \node {the book}
\end{tikzpicture}
\]

The first conjunct is essentially a complex specifier and trivial to linearize, no alteration of the LCA necessary.

8. **INTERPRETATION**

With the three contemporary accounts, the LF component of the derived RNR structures is fairly unexciting. This is not the case for the current analysis.

8.1. **Problem.** We have one conjunct that has a fully fleshed argument structure while the other is crippled.
(75)  [Ivan bought] and [Ivy read the book]

- How is the shared material integrated into the first conjunct?

8.2. **Event Predicate Conjunction.** The first conjunct instead of having an LF like in (76). (in the sense of Heim and Kratzer 1998)

(76)  [[Ivan bought]] = \( \lambda y \lambda x.\text{BUY}(x, y) \) \( x=\text{Ivan} \quad \text{Ill-formed} \)

It would have one like in (77): (in the sense of Pietroski 2005)

(77)  [[Ivan bought]] = \( \exists e \{ \text{buying}(e) \land \text{Agent}(\text{Ivan}, e) \} \quad \text{Well-formed, yet odd} \)

8.3. **Focus.** Hartmann (2000): ‘pre-gap’ position of RNR sentence must be focused and not be old material and the shared material must be old material

(78)  Q: What did Hans and Mary do to the squash?
    A: Hans sliced, and Mary fried, the squash.

(79)  Q: Who sliced and who fried the squash?
    A: *Hans sliced, and Mary fried, the squash.

(80)  Q: What did Hans and Mary do?
    A: *Hans sliced, and Mary fried, the squash.

Following Herburger 1997, 2000, non-focused material in the scope of an event quantifier is interpreted as part of the restrictor to that quantifier

(81)  ROSALIA WROTE poetry
(82)  \[ \exists e: \text{Theme}(e, \text{poetry}) \| \{ \text{Agent}(e, \text{Rosalia}) \land \text{past}(e) \land \text{write}(e) \} \]
Translated: There is some event with poetry as its theme such that its agent was Rosalia and it was a past writing.

- Given the above, let’s go out on a limb.

Assuming plural events for coordinated clauses, the interpretation of the RNR sentence in (83) could be like in (84):

(83) Ivan bought, and Ivy read, Pale Fire.

(84) \[\exists E: Ee \& Ee' \& \text{Theme}(E, \text{Pale Fire}) \{ \text{Agent}(e, \text{Ivan}) \& \text{past}(e) \& \text{buy}(e) \& \text{Agent}(e', \text{Ivy}) \& \text{past}(e') \& \text{read}(e') \} \]

Translated: There are some events of which one is event-A and one is event-B and these events had Pale Fire as a theme such that event-A’s agent is Ivan and it is a past buying and event-B’s agent is Ivy and it is a past reading.

- The shared material is interpreted in the first conjunct because that conjunct’s even variable quantifier is restricted to only those events involving the shared material.

8.4. **Prosody as a constraint.**

- We need to constrain the representations in this approach.

Fery and Hartmann (2005) note that in a sentence like (85) there are rising accents on *hummed* and *sang*, the pre-gap elements.

(85) Hanna hummed, and Erika sang, a melody

If this prosody is lacking, the sentence will lack the requisite focus readings and RNR will not be possible.

(86) Ivan was eating while Ivy tried to sell some chestnuts.
Ivan was eating, while Ivy tried to sell, some chestnuts.

The focus on the pre-gap material correlates with a particular contrastive prosody.

9. Conclusion

- Part one
  - Previous accounts are bite the bullets of their own successes.
  - Previous accounts do not work in concert to avoid their pitfalls.

- Part two
  - Nothing syntactic mediates the first conjunct and the shared material.
  - The full interpretation of the first conjunct is derivable at LF.
  - Structural constraints on RNR come from focus and prosody.

- Generally
  - Something new must be done, the account here is a plausible attempt.

10. Bibliography


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(88)

```
(88)  
TP  
  /   
John  T  
   /   
  T   vP  
   /   
  v   PP  
    /   
filed VP without reading  
     /   
    reading a  
       /   
      a recent...
```