1. Basic claims
   - Sometimes, our traditional syntactic operations cannot handle the facts.
   - This leads to altering our assumptions about what the limits of phrase structure and constituency are.
   - I will argue against one non-canonical type of phrase structure in favor of another.

2. How To Show This
   - We have a construction in Right-node Raising (RNR) that cannot be handled by traditional analyses.
   - Multidominance has been posited to account for this failure, but it cannot work either.
   - Nor can the traditional approaches and Multidominance approaches work together.
   - I offer a way out.

3. Introduction the Analyses
(1) Ivan bought, and Ivy read, the collection of short stories.
Deletion

(2) Ivan bought [the short stories] and Ivy read [the short stories].

Movement

(3) 

Multidominance

(4) 

CP

TP

Ivy

read

Ivan

bought

the

book

book

book
A Sparse Approach

(5)

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

○ The notion of constituency is utterly divorced from semantic ‘completeness’

4. What is RNR?

Range of shared elements:

(6) Ivan said, and Mary denied, that Iris had been there.
(7) Ivan said that Mary, and Ivy said that John, should read the book.
(8) Ivan should, and Ivy must, attend the class.
(9) Ivan sold, and Ivy donated, a book to the school.
(10) Ivan donated a book, and Ivy donated a chalkboard, to the school.
Cross-linguistic range:

German:

(11) *Hans soll und Ute muss heimfahren*

Hans should and Ute must home.go

‘Hans should, and Ute must, go home.’

Tagalog:

(12) *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:

(13) *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:

(14) *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.
5. Traditional Accounts

There are two main traditional accounts of RNR: Deletion and Movement.

These are the two ways to derive the pair: Interpretation and Lack of pronunciation.

5.1. Deletion. The sentence in (18) is derived from the sentence in (15).¹

1 (15) Ivan bought the short stories and Ivy read the short stories.
2 (16) Ivan bought [the short stories] and Ivy read [the short stories].
3 Identity
4 (17) Ivan bought [the short stories] and Ivy read [the short stories].
5 Deletion
6 (18) Ivan bought and Ivy read the short stories.

5.1.1. Advantages. RNR is impervious to islands:

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

is derived from:

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

- RNR licenses Vehicle Change

Ellipsis

(21) a. *Mary [loves John₁] and he₁ thinks Sally does [love John₁] too.
 b. ✓ Mary loves John₁ and he₁ thinks Sally does [love John₁] too.

RNR

(22) a. *He₁ hopes that Susan won’t [fire John₁], but the secretary knows that she will [fire John₁].

b. ✓He\textsubscript{3} hopes that Susan won’t [fire John\textsubscript{i}], but the secretary knows that she will fire John\textsubscript{i}.

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

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

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

(25) I didn’t drink wine because Ivy told me not to
(26) *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.

◦ As noted by Boskovic and Franks (2000), there is no scope ambiguity in (27), only surface scope is available.

(27) Some delegate represented every candidate and nominated every candidate.
(28) Some delegate represented every candidate.

however:

(29) 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.
(30) 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.

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

\[(31)\]

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

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

5.2.1. **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.

\[(32) \] *Wem sass die Katze auf?*  
whom sat the cat on  
Who did the cat sit on?

\[(33) \] Die Katze sass auf, und der Hund sass unter, dem dicken Mann.  
The cat sat on and the dog sat under, the fat man  
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.

\[(34) \] *The cat sat on yesterday the fat man.

(35) 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.

5.3. Interim Summary.

○ There is an interpreted gap in RNR sentences

○ This gap cannot be derived via ellipsis

○ This gap cannot be derived via movement

○ These are our two means of getting interpretation without pronunciation

○ We are going to have to be more creative

5.4. Multidominance. Citko (2005) and other) suggest that derivations are possible in which an element X is first externally merged with an element Y (36) and then externally merged with subsequent element Z (37).

(36) \[
\begin{array}{c}
YP \\
X \quad Y
\end{array}
\]

(37) \[
\begin{array}{c}
ZP \\
Y \quad YP \\
X \quad Y
\end{array}
\]

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

\(^3\) see McCawley, 1982; Phillips, 1996; Wilder, 1999; de Vos and Vicente, 2005; Gracanin-Yuksek, 2007; Bachrach and Katzir, 2009; Grosz, 2009; Larson, 2009
5.4.1. Disadvantages. MD accounts cannot handle vehicle change facts in any straightforward way.

(39) a. *He hopes that Susan won’t fire John, but the secretary knows that she will fire John.
   b. ✓He hopes that Susan won’t [fire John], but the secretary knows that she will fire John.
MD cannot account for the fact that the binding principles seem to be conjunct sensitive.

(40)  a. John_i didn’t, and Mary couldn’t, shave him_i.
b. *Mary didn’t, and John_i couldn’t, shave him_i.

similar facts hold for NPIs

(41)  a. Ivan bought, but Ivy didn’t read, any books.
    *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.

○ The poster child for multidominance and the constituency repercussions does not seem well captured by multidominance.

5.5. 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.

○ This leaves us in a very unfortunate situation.

6. 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. 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.

6.1. **How to test for an eclectic approach.** A Recipe (Barros and Vicente (2011))

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.

6.2. **Let’s try this.**

Prompt 1: Morphological Mismatch (Ellipsis only)

(42) Alice has already, and Iris wants to, work on binding theory.
(43) Alice has already [worked on binding theory], and Iris wants to, work on binding theory.

Prompt 2: Relational Modifiers (non-ellipsis)

(44) Ivan wrote, and Ivy read, different books.
(45) *as far as LF is concerned:* Ivan wrote similar books and Ivy read different books.

---

4See also Larson 2012 for use of this test with the results shown here in more detail.
(46) Alice must, and Iris ought to be, working on different topics.

6.3. Another test. 

○ Prompt 1: Vehicle Change (Ellipsis only)

(47) She\textsubscript{i} thinks that he must, but Bob fears that he won’t, come up with a topic that satisfies Alice\textsubscript{i}.

○ Prompt 2: Relational Modifiers (non-ellipsis)

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

○ Prompt 1 + Prompt 2 =

(49) She\textsubscript{i} thinks that she absolutely must, and Bill fears that he won’t, present different topics to Alice’s\textsubscript{i} supervisor.

6.4. One more time. 

○ Prompt 1: Morphological Mismatch (Ellipsis only)

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

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

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

○ Prompt 1 + Prompt 2 =

(52) Some woman must, and some man ought to be, helping every student.
6.5. **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.

7. **A way out**

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

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

The syntax feeds semantics, but is not driven by semantic concerns.

The notion of ‘constituent’ is something manipulable by the grammar, not necessary semantically coherent.

7.1. **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.

8. ‘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.

(55) He, hopes that Susan won’t, but the secretary knows that she will, fire John

If the co-indexed expression finds itself instead in the second conjunct, the sentence is no longer acceptable (56).

(56) *The secretary hopes that Susan won’t, but he, knows that she will, fire John

○ As seen above with principle C: Principle B.

(57) John, didn’t want to, and Mary couldn’t, shave him.
(58) *Mary didn’t want to, and John, couldn’t, shave him.

○ Principle A.

(59) *John, hates, but Mary, likes, himself
(60) Mary, likes, but John, hates, himself

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

(61) 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:

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

(63) possible co-varying reading
He selected, but Sally bought, each boy’s fathers day present.

- Number agreement is conjunct sensitive.\(^5\)

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

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

- Morphological case also shows this asymmetry:

(66) *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.’

(67) 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.

9. **Linearization**

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

\(^5\)For those who do not allow ‘cumulative agreement’ like in Grosz 2009).
9.1. **Deletion.** Aside from pure stipulation, there is one formalized account of which conjunct undergoes deletion. Ha (2006) posits an ERNR 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:

\[(68) \quad [CP \ C [TP \ Ivan \ bought \ [ERNR \ the \ newspaper] \ [\& \ P \ and \ [TP \ Ivy \ read \ [ERNR \ the \ newspaper]]]]\]

\[(69) \quad [CP \ C [TP \ Ivan \ bought \ [ERNR \ the \ newspaper] \ [\& \ P \ and \ [TP \ Ivy \ read \ [ERNR \ the \ newspaper]]]]\]

But what of more than two conjuncts? How can any other conjunct have a portion of itself elided?

\[(70) \quad Iris \ saw \ the \ newspaper \ and \ Ivan \ bought \ the \ newspaper \ and \ Ivy \ read \ the \ newspaper.\]

\[(71) \quad [CP \ C [TP \ Iris \ saw \ [ERNR \ the \ newspaper] \ [\& \ P \ and \ [TP \ Ivan \ bought \ [ERNR \ the \ newspaper] \ [\& \ P \ and \ [TP \ Ivy \ read \ [ERNR \ the \ newspaper]]]]]\]

\[(72) \quad *?Iris \ saw, \ and \ Ivan \ bought \ the \ newspaper, \ and \ Ivy \ read \ the \ newspaper.\]


Given two (simplified) sub-trees not yet coordinated, like in (73) below, the two instances of *John* are ordered like in Fox and Pesetsky as (50a) and (50b) respectively.

\[(73) \quad \begin{array}{c}
\text{hears} \\
\text{Ivan} \\
\text{hears} \\
\text{hears} \\
\text{John} \\
\end{array} \quad \begin{array}{c}
\text{sees} \\
\text{Ivy} \\
\text{sees} \\
\text{sees} \\
\text{John} \\
\end{array}\]

\[(74) \quad \begin{array}{l}
a. \quad Ivan > \text{hears} > \text{John} \\
b. \quad Ivy > \text{sees} > \text{John} \\
\end{array}\]
9.3. Multidominance.

(77) &

read &

Ivy read & bought

read Ivan bought

bought the

the book
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)

(78)  \textit{Ivy} > \textit{bought}  \\
(79)  \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.

9.4. The \textbf{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 (80):

\begin{center}
\begin{tikzpicture}
    \node (T) {and} edge from parent node[anchor=south east] {&} edge from parent node[anchor=south west] {&}
    \node (T1) {bought} child {node (I) {Ivan} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
    \node (Ivy) {read} child {node (T2) {read} child {node (the) {the} child {node (book) {book}} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
    \node (T3) {bought} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
    \node (T4) {read} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
    \node (the) {the} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
    \node (book) {book} edge from parent node[anchor=south west] {T} edge from parent node[anchor=south east] {T}
\end{tikzpicture}
\end{center}

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

10. \textbf{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.
10.1. **Problem.** We have one conjunct that has a fully fleshed argument structure while the other is crippled.

(81) [Ivan bought] and [Ivy read the book]

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

10.2. **Event Predicate Conjunction.** The first conjunct instead of having an LF like in (82). (in the sense of Heim and Kratzer 1998)

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

It would have one like in (83): (in the sense of Pietroski 2005)

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

10.3. **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

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

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

(86) 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

(87) ROSALIA WROTE poetry
(88) \[ \exists e: \text{Theme}(e, \text{poetry}) \} \{ \text{Agent}(e, \text{Rosalia}) \& \text{past}(e) \& \text{write}(e) \}\]

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 (89) could be like in (90):

(89) Ivan bought, and Ivy read, Pale Fire.
(90) \[ \exists E: E \& E' \& \text{Theme}(E, \text{Pale Fire}) \} \{ \text{Agent}(e, \text{Ivan}) \& \text{past}(e) \& \text{buy}(e) \& \text{Agent}(e', \text{Ivy}) \& \text{past}(e') \& \text{read}(e') \}\]

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 varible quantifier is restricted to only those events involving the shared material.

10.4. ATB movement. There has been another use of Multidominance that is superficially similar to RNR, ATB wh-questions:

(91) What did Iris buy and Ivy devour?

Citko (2005) analyzes this construction like the following:
But we still find asymmetries:

Weak Crossover (from Citko):

(93) *Who, should his, best friend invite t, and Ivy meet t,?
(94) Who, should Ivy invite t, and his, best friend meet t,?

Reconstruction (from Citko):

(95) *Which pictures of herself, did Ivan sell t, and Ivy buy t,?
(96) Which pictures of himself, did Ivan sell t, and Ivy buy t,?

Islands:

(97) *What, did Bill ask whether Al bought t, and James say that Tim sold t,?
(98) What, did James say that Tim sold t, and Bill ask whether Al bought t,?
A Sparse Approach:

(99) CP
    \[\text{what} \quad \text{his} \quad \text{buy} \quad \text{t} \quad \text{Ivy} \quad \text{devour}\]

11. CONCLUSION

- Part one
  - Approaches to RNR that rely on classical operations must bite the bullets of their own successes.
  - A multidominance solution fails as well, and with it a certain notion of constituency

- Part two
  - Nothing syntactic mediates the first conjunct and the shared material.
  - The full interpretation of the first conjunct is derivable at LF.
  - We can have syntactic constituents that are divorced from semantics.

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