Syntactic and Semantic Dependencies in Early Modern English Relative Clauses

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What We’re Looking At

(1) a. This seemed to be done in distrust of the privy council, as if they might stifle his evidence; "[which to prevent __], he put it in safe hands" [Gilbert Burnet, *History of my own time*, 1683–1713]

b. Mr Hoby, my Mother, and my selfe, went to visitt some freindes "[who, __ beinge not at home], we retourned" [Lady Margaret Hoby, *Diary*, 1599–1601]

c. receive then this Draught [with which when thou art refresh’d __], thou mayst more strongly proceed to other Matters which yet remain" [Richard Preston (tr.), *Consolation of Philosophy*, 1695]

Call them *Relatives with a Leftward Island*, or RLIs.
First Pass Characterisation

- A relative clause, consisting of:
  - A relative pronoun, at the left edge of:
  - A strong island, which contains:
  - The gap associated with the relative pronoun, to the left of:
  - The “matrix” clause.
Mr Hoby, my Mother, and my selfe, went to visitt some freindes

\[ \text{Antecedent clause} \]

who, \_ beinge not at home, we retourned

\[ \text{Island clause} \quad \text{Matrix clause} \]

\[ \text{Relative with a Leftward Island} \]
How to Interpret an RLI

- **Nonrestrictive** relatives (*continuitive*, in Jespersen’s sense);
- Typically *advance the narrative* w.r.t. the antecedent clause;
- Pronoun is interpreted like a *definite, anaphoric pronoun*, but fronted;
  - ...to prevent *this*, he put it in safe hands
- The island is sometimes *semantically dependent on the following matrix*, never on the antecedent.

(2) ye abstaine from meates offered to idoles, and from blood, & from things strangled, and from fornication: [[from which if ye keepe your selues __], yee shall doe well]. [New Testament, Authorized Version, 1611]

Examples to be discussed here come from PennParsed Corpora - 401 tokens, 1 per c.4,500 words.

Almost unattested (3 examples) before the 16th century.

Robustly attested as soon as they came into existence.
Basic Facts II

- Many long texts contain no examples, which may suggest not acquired by everyone.
- Concentrated in philosophical or religious works, sometimes claimed (e.g. by van der Wurff) to be a borrowing from Latin (Moessner 1992, Rissanen 1999: borrowing from French), but found in texts from all registers to some extent
- Died out gradually, mainly over the 19th century (last example in Visser is from 1883), after a heyday in the 16th and 17th centuries.
Basic Facts III

- Not unique to EModE: similar examples exist in at least Latin (Madvig 1870), Medieval Italian (Bianchi 1999), Early Modern Dutch (Ackema & Neeleman 2007), Bavarian German (Felix 1985), and Hindi (Rajesh Bhatt, p.c.).

(3) das ist der Wein [[den wenn ich __ trink], krieg ich Kopfweh].

this is the wine which if I drink get I headache

“This is the wine which I get a headache if I drink.”

- This example is restrictive, though (also found in Latin and Hindi) — not clear if exactly the same construction.
Like other semi-rare constructions, we may not want to state conditions which bear only on the distribution of RLIs.

Broader implicit hypothesis: If you pay attention to detail in the diachronic development of the English relative system, you get a story about RLIs for free.

I’ve already written and presented material on the emergence of RLIs (ask me). Today, I want to extend this study to their disappearance.
Things We Don’t Find

(4) a. ✓ A married Gentleman coming through Canterbury, his Horse threw him, [[which a young Gentlewoman seeing __], fell a laughing] [Anonymous, *Penny Merriments*, 1685–7]

b. **No rightward islands**
   *... [which a young Gentlewoman fell a laughing [seeing __]]*

c. **No unbounded dependencies**
   *... [which I think [that [a young Gentlewoman seeing __], fell a laughing]]*

Conclusion: the relative pronoun remains within the island (*contra* Felix, Van der Wurff).
Further Properties I

- We never see any obvious gap where the island could have moved from → it’s base-generated at the left.

(5) *John, [[who [__ and Bill]] we saw __ last night]

- Relevant examples are overwhelmingly in appositive relatives (398/401 examples).

(6) a. *I wonder [[which married Gentleman a young Gentlewoman seeing __] fell a laughing].
   b. *The thing [that a young Gentlewoman seeing __] fell a laughing] was actually heartbreaking.
Further Properties II

- The relatives are always sentence final.
- Punctuation is unreliable, but these relatives have a tendency to be separated from what goes before by heavy punctuation (5x more likely than other relatives).

(7) they went about to slay him. Which when the brethren knewe __, they brought him downe to Cesarea, and sent him foorth to Tarsus.
Consequences

- We saw that the island is base-generated as a left-adjunct to the matrix, and that the A'-chain is entirely within that adjunct.
  - Left-adjointed constituents are leftward islands, so we instantly capture those properties.
  - Also explains sentence-final position: the island is syntactically dependent only on following material. The RLI is syntactically independent of the antecedent clause — the only link is semantic.
- This predicts that every island in an RLI should be found in non-RLIs as a left-adjunct.
Left-Adjunction in RLIs and Non-RLIs I

Finite adverbial clauses:

(8)  
a. **RLI:** but not so easie work found Ethelfrid against another part of Britans that stood in arms, [[whom though at last he overthrew __], yet with slaughter nigh as great to his own souldiers]. [John Milton, The history of Britain, that part especially now call’d England, 1670]

b. **Non-RLI:** And [[though the upper part of Weredale be not very fertile of corne]; yet ys there very fine gresse in the dale self wher the ryver passith]. [John Leland, Itinerary, 1535–43]
Comparative correlatives (rare):

(9) a. **RLI:** For to try Doctrines is to enquire into the grounds and reasons of them; [[which the better any man understands __], the more firmly he will be established in the Truth]. [John Tillotson, Sermon, 1679]

b. **Non-RLI:** [[The sooner a child is put to School], the better it is] [Charles Hoole, *A New Discovery of the Old Art of Teaching Schoole*, 1660]
Left-Adjunction in RLIs and Non-RLIs III

Leftward purpose clauses:

(10) a. **RLI**: if it [your butter] be ouer cold it will not come at all . . . , [[which faults to helpe ___] if you churne your butter in the heate of Sommer it shall not be amisse, if . . . ] [Gervase Markham, *Countrey Contentments*, 1615]

b. **Non-RLI**: [[To make children to take a delight in spelling], let them spell many syllables together, which differ but only in one letter, as hand, band, land, sand, &c.] [John Brinsley, *Ludus Literarius or The Grammar Schoole*, 1627]
Present participial absolutes:

(11)  a. **RLI:** wee espied three saile being small boats, sleightly wrought together, called Paugaias which we made after and tooke, [[which they on shore espying __], they sent out an Aduisor] [Robert Coverte, *A Trve and Almost Incredible Report of an Englishman*, 1612]

   b. **Non-RLI:** three or four Male-Carps will follow a Female; and . . . then [[she putting on a seeming coyness], they force her through weeds and flags] [Izaak Walton, *The Compleat Angler*, 1676]
Past participial absolutes:

(12) a. **RLI:** having opened the Letter, he gave it to me to read for him, [[which __ ended], he said he would answer it] [John Drummond, 1st Earl Melfort, Letter to King James the Second from Rome, 1690]

b. **Non-RLI:** [[she gone], comes my wife and to walk in the garden] [Samuel Pepys, Diary, 1667]
Remote Antecedents I

- No syntactic relationship between relative pronoun and antecedent.
- This means that they needn’t be string-adjacent.
- The same is true of EModE appositives in general — call such cases *remote antecedents*:

  (13) a. They went ouer ye water to the churche of the sayde Seyntis, [whiche is an arme of the see] [Anonymous chaplain, Journal, 1506]

  b. Do a longe rowe of seruauntes goyng in order waytyng vpon the, make the happye and good? [[whyche yf they be euyll manerd, then be they a perilous charge to they house] [George Colville (tr.), *Consolation of Philosophy*, 1556]
Remote Antecedents II

- This explains why RLIs are nonrestrictive: any standard story about the semantics of restrictive relatives is based on a syntactic relation holding between relative clause and some projection of the antecedent (to permit, e.g., predicate modification).

- But the pronoun in an RLI needs an overt, accessible, antecedent (*that/*which was interesting*).

- The interpretation of the pronoun is definite → the relative pronoun is an E-type pronoun.

- This is still true today: see Sells (1986), Demirdache (1991) on PDE nonrestrictive relative pronouns.
Intermediate Summary

To make an RLI, you need

- A base-generated left-adjunction configuration;
- E-type relative pronouns;
- Relative pronouns which are not syntactically dependent on their antecedent, and allow remote antecedents;
- Relative pronouns able to attach within the left-adjointed clause (maybe related to the above).
A Hypothesis

- PDE has base-generated left-adjunction configurations.
- PDE has E-type relative pronouns.
- PDE doesn’t have (many) remote antecedents or attachment within left-adjoined clauses.
- So a good bet is that PDE relative pronouns are syntactically dependent on their antecedents, while EModE relative pronouns weren’t.
- This hypothesis can give a unified account of the disappearance of both RLIs and remote antecedents.
- If they require a unified account...
Testing the Hypothesis: Texts I

- 12 texts from PPCEME:
  - 3 each from 1500–1570; 1570–1640; 1640–1710.
  - 2 in each period with high RLI use, 2 with low RLI use.

- Degree of RLI use is quantified as follows:
  1. Total *Wh* relatives in the corpus = 14,343;
  2. Total number of RLIs in the corpus = 401;
  3. *Wh* relatives per RLI ≈ 36;
  4. Calculate expected RLIs by text;
  5. Take texts with unexpectedly high or low observed amounts of RLIs.
### Testing the Hypothesis: Texts II

<table>
<thead>
<tr>
<th>Text</th>
<th>Period</th>
<th>Wh-RCs</th>
<th>Exp(RLIs)</th>
<th>Obs(RLIs)</th>
<th>Difference</th>
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<td>-16</td>
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</table>

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Syntactic and Semantic Dependencies in Early Modern English Relative Clauses
Testing the Hypothesis: Data I

Four variables, each as log frequency per 1,000 *wh*-relatives:

1. *Wh-N* relatives (independent, counted automatically);
2. *The Wh* relatives (independent, counted automatically);
3. *Wh* relatives with remote antecedents (independent, counted manually);
4. RLIs (dependent, counted automatically).

We expect a correlation between (3) and (4). (1) and (2) are there, as salient other changes in the EModE *wh*-relative system, to address the question of whether the correlation between (3) and (4) is special, or indicative of general change in the *wh* relative system. We have no reason to expect a correlation between (1) or (2) and (4).
Testing the Hypothesis: Data II

How many of each of the following do we find, and how well does their presence correlate with the presence of RLIs?

(14) *Wh-N relatives*: All things therefore desire Good; *which Good* you may describe to be that which is desired of all. (BOETHPR-E3-H,146.253)

(15) *The Wh relatives*: I will not overthow this citie, *for the which* thou hast spoken. (AUTHOLD-E2-P1,XIX,20G.792)

(16) *Remote antecedents*: [He] enquired of *his Friend* where it was he lodg’d, *who* gave him an account of every matter requisite for Sir Humphry’s purpose (PENNY-E3-P2,165.143)
## Testing the Hypothesis: Results 1

<table>
<thead>
<tr>
<th>Text</th>
<th>Period</th>
<th>Freq(RLIs)</th>
<th>Freq(Remote)</th>
<th>Freq(Wh-N)</th>
<th>Freq(The-Wh)</th>
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<tbody>
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<td>0</td>
</tr>
</tbody>
</table>

All frequencies are reported as log counts per 1,000 *wh*-relatives.
Testing the Hypothesis: Results II

RLIs vs. remote antecedent

\[ r^2 = 0.85 \]

RLIs vs. Wh–N relatives

\[ r^2 = 0.28 \]

RLIs vs. The–Wh relatives

\[ r^2 = 0.05 \]
### Testing the Hypothesis: Results III

Coefficients:

|                  | Estimate  | Std. Error | t value | Pr(>|t|)   |
|------------------|-----------|------------|---------|------------|
| (Intercept)      | -15.14042 | 2.65372    | -5.705  | 0.000452 *** |
| Remote           | 3.32649   | 0.57131    | 5.823   | 0.000395 *** |
| Wh-N             | 0.18024   | 0.25678    | 0.702   | 0.502621   |
| The Wh           | 0.05135   | 0.15845    | 0.324   | 0.754195   |

Residual standard error: 0.8798 on 8 degrees of freedom

Multiple R-squared: 0.8631, Adjusted R-squared: 0.8118

F-statistic: 16.81 on 3 and 8 DF, p-value: 0.0008155
Testing the Hypothesis: Results IV

Coefficients:

|                     | Estimate | Std. Error | t value | Pr(>|t|)   |
|---------------------|----------|------------|---------|------------|
| (Intercept)         | -15.5086 | 2.4800     | -6.253  | 9.46e-05   |
| Remote              | 3.5571   | 0.4801     | 7.408   | 2.29e-05   |

Residual standard error: 0.8349 on 10 degrees of freedom
Multiple R-squared: 0.8459, Adjusted R-squared: 0.8305
F-statistic: 54.88 on 1 and 10 DF, p-value: 2.293e-05
Conclusions

- There is a strong positive correlation between the frequency of remote antecedents and of RLIs in wh-relatives.
- This correlation is specific to these two properties: despite other concurrent changes in the English relative system, only these two are correlated.
- This correlation emerges despite noisy data: not all types of remote antecedent have disappeared today (extraposition, etc.), and such remote antecedents appear to be differentially present in texts with few or no RLIs.
The correlation is consistent with the general analysis of RLIs advanced here: even when an RLI appears adjacent to its antecedent, there is no syntactic connection. That is why RLIs decline in tandem with remote antecedents.

This analysis of RLIs approaches the Chomskyan ideal whereby properties of this fairly rare construction are not directly stipulated, but emerge from the interaction of more general factors. Here, the diachronic distribution of more general factors like remote antecedents of wh-relatives determines the distribution of RLIs.


