

Relatives with a Leftward Island in Early Modern English

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Abstract I describe a type of relative clause found in 16th–19th century English. This construction, the *Relative with a Leftward Island* or *RLI*, is characterised by a cluster of unusual properties. The relative pronoun is a definite, anaphoric pronoun, apparently semantically identical to that found in regular English appositive relatives, but the syntactic structure containing that pronoun is quite distinct from that of regular relative clauses. RLIs are biclausal structures, syntactically independent of the antecedent of the relative pronoun, with the first clause left-adjoined to the second. The relative pronoun occurs at the left edge of the subordinate, left-adjoined clause. I provide a synchronic analysis of this construction, and a sketch of the diachrony of relative clauses around this time, a period in which many constructions emerged, spread to some extent, and then disappeared within a century or so, without ever becoming fully widespread. The analysis offered here touches on many areas of syntactic theory, including island pied-piping, null subjects in non-pro-drop languages, resumption, the distribution of adjoined positions, and properties of movement and binding.

Keywords Early Modern English · relative clauses · A'-binding · E-type pronouns · locality

1 Introduction

Over the course of its history, English has moved from a relatively well-understood Old English relativisation system (see Allen 1980 and van Kemenade 1987, for example), to a present-day system which is also fairly well-understood, but quite distinct. Alongside major, well-documented changes, such as the development of the relative particle *that* and the innovation of headed *wh*-relatives, the transition between these

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two systems is full of rapid, smaller changes, with several relative structures appearing and disappearing over the course of a century or two. These constructions are often quite fragile, in the sense that they occur with low frequencies, and are plausibly not acquired at all by many speakers. Such constructions therefore have a somewhat marginal status in the grammar of English as a whole, but are too robustly attested in the grammars of individual speakers to be disregarded.

The immediate aim of this paper is to describe one such fragile construction in Early Modern English (EModE), which has received relatively little attention to date. It was noted, with many examples, in Jespersen (1927) and particularly Visser (1963:488–492). Since then, there have been a couple of generative analyses, which we will come back to below: one by van der Wurff (1988) of the EModE construction, and two of related constructions in Bavarian German (Felix 1985), and Medieval Italian (Bianchi 1999).¹ The examples look like this:²

- (1) a. a sarmon, something better then that in the morninge: [[which __ ended, with all Ceremones], I returned to my lodginge] (HOBY-E2-H,73.191) [Lady Margaret Hoby, *Diary*, 1599–1601]
- b. Mr Hoby, my Mother, and my selfe, went to visitt some freindes [[who, __ beinge not at home], we returned] (HOBY-E2-P1,161.150) [Lady Margaret Hoby, *Diary*, 1599–1601]
- c. 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]. (BURNETCHA-E3-H,1.2,163.329) [Gilbert Burnet, *History of my own time*, 1683–1713]
- d. receive then this Draught [[with which when thou art refresh'd __], thou mayst more strongly proceed to other Matters which yet remain]. (BOETHPR-E3-H,201.466) [Richard Preston (tr.), *Of the Consolation of Philosophy*, 1695]

There is a lot going on in these examples, and it will be helpful to fix some terminology. Typically, we must consider three clauses. The first either is, or contains, the antecedent of the relative pronoun—I will call this the *antecedent clause*. Next comes the clause containing the *wh*-pronoun and the gap associated with it. We will see that this clause is generally an island, and it will typically be the only island we are interested in. Accordingly, I will call it the *island clause*. Finally, there is the clause to which the island is attached, which I will refer to as the *host clause*. I will also refer to the combination of the last two clauses as a *Relative with a Leftward Island*,

¹ The construction is also mentioned briefly, but not analysed, in Rissanen (1999:297) and Denison (1998:288–9). Rissanen (1984) and Kytö and Rissanen (1993), along with van der Wurff (1988), discuss the construction more from the point of view of its social distribution and possible origin as a borrowing from Romance. Finally, Moessner (1992) discusses a few very similar constructions which we will come back to below, without mentioning examples quite like (1).

² All historical English examples are from the Penn-Helsinki English corpora (Kytö 1996, Kroch and Taylor 2000, Kroch *et al.* 2004) unless otherwise noted. For each example, I give a location within the corpora, and basic information concerning author, title, and date, along with a translation into Present-Day English, if necessary. For fuller information on these texts, I refer the reader to the supporting documentation for these corpora.

- (5) You abstain from meats offered to idols, and . . . , and from fornication. If you keep yourselves from these, you shall do well.

The basic distinguishing features of an RLI are that the clause at the left edge of the RLI constitutes an island, and that island clause contains a gap associated with the relative pronoun. This contrasts with three unattested variants. Unlike the attested example (6a),³ we never find examples like (6b), where the island is string-final but the *wh*-pronoun is initial within the RLI; (6c), where the *wh*-pronoun and the island occur as a single constituent anywhere but at the left edge; or (6d), where the *wh*-pronoun has moved to a higher clause, stranding the island.

- (6) a. A married Gentleman coming through Canterbury, his Horse threw him, [[which a young Gentlewoman seeing __], fell a laughing] (PENNY-E3-H,161.473) [Anonymous, *Penny Merriments*, 1685–7]
 b. * . . . which a young gentlewoman fell a-laughing [(__) seeing __].
 c. * . . . a young gentlewoman fell a-laughing [which seeing __].
 d. * . . . [which I think [__ that [(__) a young gentlewoman seeing __] fell a-laughing]].

The primary aim of this paper is to understand what differentiates RLIs from these unattested variants, and give a synchronic and diachronic account of their development. Before that, though, the rest of this introduction will be concerned with the broad distribution of RLIs.

RLIs are all but unattested before the 16th century (the first text in the Penn-Helsinki corpora which contains many tokens is Thomas More's *History of King Richard III*, c.1513), but when they do appear, they are, if not exactly common, at least robustly attested. At least 404 examples can be found in the Penn-Helsinki corpora from this time on, or roughly one RLI for every 4,500 words. Although van der Wurff (1988) claims that the construction arose as a result of Latin borrowing (and it does remain concentrated in more Latinate texts), the examples I have collected come from most written registers, including Gervase Markham's *Coutrey Contentments* (a recipe book with the subtitle *The English Huswife*) and the relatively lowbrow *Penny Merriments*. This suggests that, although they are most concentrated in philosophical and religious texts, the emergence of RLIs is not entirely due to conscious imitation of Latin.⁴

³ We will return to the unusual behaviour of the subject in this example below.

⁴ Moessner (1992) and Rissanen (1999) suggest instead a French origin for constructions like RLIs, including the resumptive variant to be discussed in section 4 below, based on examples such as (i).

- (i) Les serpents sont des animaux [qui, [tant qu' on les laisse tranquilles], n'
 The snakes are some animals which as.much that one them leaves calm, NEG
 attaqueront jamais les hommes].
 attack.FUT never the men
 'Snakes are animals which never attack people as long as they are left in peace.' (Moessner 1992:348)

While this may be plausible in principle, we shall see below that the family of constructions related to RLIs changed substantially over the course of a century or two after their initial appearance in English, and true RLIs emerged at a late stage of this development. Accordingly, any initial borrowing served only as the

There was quite some individual variation in the use of RLIs: more than half the texts in the corpus, including some which are tens of thousands of words in length, contain no RLIs, while others contain dozens of examples (in the sample from Roper's *Lyfe of Sir Thomas Moore*, there is one RLI for every 491 words). Although some of this variation is undoubtedly accidental, it is unlikely that all of it is. This suggests that RLIs were never ubiquitous in the way that core grammatical devices like relative clauses are: some speakers used them quite widely, but others never used them at all.

Exactly when RLIs disappeared from English is unclear. Already by 1710, the end of the period covered by the corpora, their frequency is declining. However, the decline was a slow one, with sporadic examples throughout the 19th century, and the last example I am aware of (from Visser) is dated 1883. In sum, then, RLIs were ruled out by the grammars of English speakers prior to c.1500 (we will see below that 1450 may be a more accurate estimate), became available to some (but probably not all) speakers after that date, never became fully widespread, and disappeared slowly over the following 400 years.

From a crosslinguistic perspective, RLIs are far from universal, but perhaps not unique to EModE. I have structurally quite similar, but maybe not identical, examples from five other languages, namely Latin (Madvig 1870:396), Medieval Italian (Bianchi 1999:143–4), Early Modern Dutch (Ackema and Neeleman 2007:87–8), Bavarian German (Felix 1985:177), and Hindi (Rajesh Bhatt, p.c.). Of these, however, generative analyses have only been attempted for Bavarian and Medieval Italian, by Felix (1985) and Bianchi (1999) respectively. The first of these subsequently formed the basis for van der Wurff's discussion of the EModE pattern. The Bavarian case is illustrated below.

- (7) a. 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.'
- b. das ist die Frau [[die wenn du ___ heiratest], bist du verrückt].
 this is the woman who if you marry are you crazy
 'This is the woman who you would be crazy to marry.' (Felix 1985:177)

The most striking difference between these examples and the EModE case is that the Bavarian examples are restrictive, while we have seen that Early Modern English RLIs are almost universally nonrestrictive. At least Latin and Hindi also allow restrictive examples. This leaves me agnostic as to the degree of similarity between these constructions in different languages. I will therefore concentrate almost exclusively on the English construction here, leaving any comparative issues aside until we have a better understanding of the distribution of similar constructions in other languages.

The primary aim of this paper, then, is to understand more of the syntax of RLIs in EModE. But, once we have an adequate synchronic description, we must ask where RLIs came from and where they went to. The second half of this paper therefore aims

input to a language-internal process of development before RLIs as defined above emerged. The focus of this paper is on that language-internal development.

to discover what it was about earlier stages of English that allowed RLIs to show up when and where they do.

The paper is structured as follows. Section 2 will present a simple-minded account of the contrast between the attested examples in (1) and the unattested examples in (6), analysing the construction in (1) as a case of pied-piping by the relative pronoun of an island to [Spec,C], presenting an overt counterpart of the account of apparent island violations in Japanese covert movement in Pesetsky (1987) and Nishigauchi (1990). This analysis, whatever its merits in the Japanese case, will fail here in interesting ways, which leads in section 3 to a more empirically adequate analysis of RLIs as left-adjunction constructions, without pied-piping, where the island contains a definite, anaphoric relative pronoun.

In the second half of the paper, I propose that RLIs developed as a result of late Middle English resumption strategies in relative clauses. Section 4 shows that resumption in late Middle English (c.1350–1500) had a freer distribution in *wh*-relatives than *that*-relatives, specifically in that counterparts of RLIs with resumptive pronouns rather than gaps are possible in *wh*-relatives, but not in *that*-relatives. This leads to the postulation of two *wh*-relativisation strategies in late Middle English: one (movement to [Spec,C]) can leave a gap and can create doubly filled COMPs, but cannot be used in RLI-like structures; while the other (adjunction of a relative pronoun, which binds a resumptive pronoun) has a resumptive pronoun rather than a gap at the foot of the chain, and can be used in resumptive RLI-like structures, but is incompatible with doubly filled COMPs. Section 5 then claims that RLIs emerged when it was no longer obligatory for the resumptive pronoun associated with *wh*-relatives to be overtly present, so the relative pronoun in an RLI binds a null resumptive pronoun. Finally, section 6 sketches a possible scenario for the loss of RLIs, and section 7 concludes.

2 Island Pied-piping

A simple analysis compatible with the contrast between (1) and (6) would claim that the island in an RLI ends up in a leftward position as a result of being pied-piped to that position by the *wh*-pronoun. This would mean that Early Modern English RLIs provided an overt counterpart to the series of covert movements postulated by Pesetsky (1987) and Nishigauchi (1990) to explain the absence of certain island effects in Japanese. The validity of the island pied-piping analysis of Japanese has been the focus of some debate (see, for example, von Stechow 1996 for semantic arguments that it is untenable without substantial modification, and Richards 2000 for syntactic arguments that it is more or less essential). In general, though, the analysis would clearly be better supported if we regularly came across overt cases of island pied-piping (at present, the only serious candidate that I am aware of for overt island pied-piping is Basque, on which more below). There would, then, be some theoretical significance to the discovery that island pied-piping was attested overtly in EModE. However, I will eventually reject that analysis, and the empirical inadequacies that we discover in it will lead us to a different, fuller picture of the syntax of RLIs. Accordingly, section

2.1 describes the island pied-piping analysis, and section 2.2 details a few problems with it.

2.1 The Analysis

As locality theory has developed, we have dealt at different times with two very different classes of locality domain. Firstly, there are domains which simply cannot be extracted from. These include the locality domains discovered by Ross (1967): note the exceptionless nature of the formulation of the Coordinate Structure Constraint, for example.

- (8) 'In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct' (Ross 1967:161).

However, this leaves us with no account of the successive cyclicity phenomena which have been documented since Chomsky (1973). The standard approach to these phenomena is to assume that certain locality domains have a privileged region, an *edge*. Elements in that edge are accessible to movement operations which take them outside the domain, while elements not in the edge can only move within the domain. This has the effect that domain-internal movement to an edge position opens up further movement possibilities, and so a pattern of successive cyclic movement from edge to edge can cover a greater overall distance than could be covered in a single step. One formalisation of this notion is the Specified Subject Condition of Chomsky (1973:239). The domain is α , the ellipsis immediately to the left of the specified subject Z marks the edge, and although the condition bars any rules involving domain-external X and domain-internal Y , nothing prohibits a rule involving X and anything contained within that edge. Therefore, if Y can move to a position between Z and the left edge of α , it becomes accessible to X .

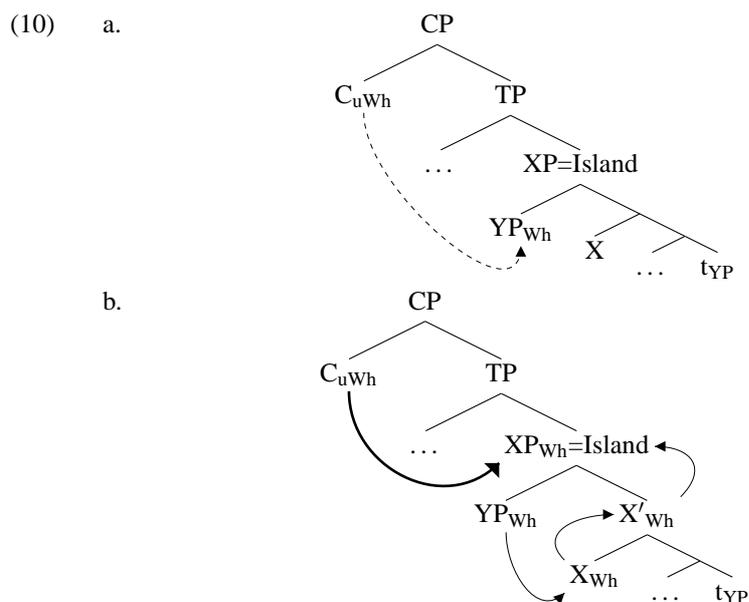
- (9) 'No rule can involve X, Y in the structure
... X ... [α ... Z ... - WYV ...] ...
where Z is the specified subject of WYV in α ' [α is a *cyclic node*, S or NP]

I will call a constraint like (8) an *absolute islands* constraint, and one like (9) a *domains with edges* constraint. Absolute islands are clearly no use in accounting for the successive cyclicity phenomena that domains with edges were invented for. However, domains with edges *can* mimic the effect of absolute islands under certain circumstances. If the only way to get out of a domain XP is to stop off in a privileged edge position [Spec, X], but that position either does not exist or is for some reason inaccessible, then XP will behave like an absolute island. That is essentially how the Head Constraint of van Riemsdijk (1978) blocks extraction from PP in non-P-stranding languages. If, on the other hand, we assume that movement may skip one edge position, but moving out of *two* domains without stopping off in either edge position leads to ungrammaticality, then we have Subjacency, in the sense of Chomsky (1973, 1986). Subjacency, of course, derives the presumed fact that subjects and complex NPs are absolute islands, despite not having the form of an absolute islands constraint. If

there is to be a reductionist locality theory, then, it is clear in which direction it must proceed: domains with edges can mimic absolute islands, but not *vice versa*, and so the latter may prove to be dispensable. It therefore comes as no surprise that there have been many theories, most notably Chomsky (1986), that attempt to do without absolute islands as primitives.

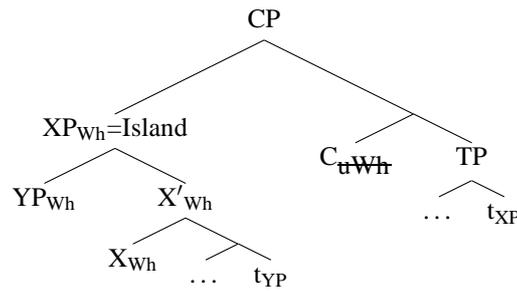
However, there is one situation which would reliably tell domains with edges apart from absolute islands. The whole point of the edge of a domain is that once you reach that edge, you can go further and leave the domain behind. Now, if we found a case in which a phrase reaches the edge of a domain, but still cannot move out of the domain, we would know that we had found an absolute island.⁵ An absolute island does not care how close you get to its edge: you cannot get off, regardless.

At first sight, it looks like this is precisely what we have in the case of the RLI construction in (1). One way of accounting for the universal leftward position of the island is as follows: we assume that the islands in those examples are absolute islands, so even if the *wh*-pronoun moves to the left edge of the island, it cannot get any further (assume for concreteness that it is invisible to probes outside the island, as indicated by the dotted arrow in (10a)). Next, standard mechanisms of Spec-head agreement and projection (Chomsky 1986) percolate the [wh]-feature from the pronoun in [Spec,X] up to the maximal XP node (10b). At this point, the [wh] feature becomes visible to island-external probes (as indicated by the bold arrow), so the whole island, but not the *wh*-pronoun alone, can move further (10c).



⁵ Richards (2000) also noted the relevance of island pied-piping to this line of reasoning, but did not draw this conclusion.

c.



This, or some close variant, seems like a natural story to tell concerning RLIs like (1). Certainly, it accounts for the presence of RLIs across a wide range of islands: we have already seen in (1) that RLIs are formed around a variety of adverbial or absolute, finite or nonfinite, verbal or clausal projections, which are all frequently classified as islands. Much more rarely, RLIs are formed around islands of other categories, as in (11).⁶

- (11) by them, [[whom whosoever despiseth __], despiseth not them, but me] (HOOKER-A-E2-H,8.88–9) [Richard Hooker, *Two Sermons upon Part of S. Judes Epistle*, 1614]

Moreover, if we add an economy condition forcing us to always move as little as possible,⁷ as in Chomsky’s (1995) conception of pied-piping as a last-resort operation whereby a feature carries along the minimal amount of material necessary for convergence, then we find a natural explanation for the fact that RLIs generally involve islands. This is one respect in which EModE differs from Basque or Imbabura Quechua. In those languages, clausal pied-piping is widespread, and generally involves complement clauses, but clausal adjuncts can be pied-piped under some circumstances. (12) gives examples from Imbabura Quechua and (13) from Basque—in each case, (a) demonstrates pied-piping of a complement clause and (b) demonstrates pied-piping of an adjunct clause.

- (12) a. [pi Utavalu -man ri- chun] -taj muna -ngui?
 who Otavalo -to go- SUBJ -Q want -2
 ‘Who do you want to go to Otavalo?’ (Cole 1982:19)
 b. [may -pi Marya ka -jpi] -taj Juan ruwana -ta randi -rka?
 where -in María be -ADV -Q Juan poncho -ACC buy -PAST -3

⁶ I will have less to say about the examples with nonclausal islands, partly because their scarcity makes me unsure as to their grammaticality. (11) is one of only three examples of RLIs in the corpora where the leftward island is a subject. Jespersen gives a handful of examples, but they are concentrated in the 18th and 19th centuries, by which point RLIs in general are on the wane. Note also that the interpretation in (11) is restrictive, which also distinguishes this example from the others that we have seen. This may suggest that such examples represent an independent phenomenon, and accordingly, I put them aside here. This is a strategy that I adopt repeatedly in this paper: in many cases, hundreds of examples can be covered by a given generalisation, with just two or three counterexamples. I disregard the few counterexamples if their scarcity is surprising, but at least include them in the paper in the interests of completeness. If a more unified account can be found in future, so much the better.

⁷ The well-known cases of optional pied-piping, for instance of many prepositions in English, mean that this is not entirely accurate, but it is a reasonable first approximation to the facts.

‘Juan bought a poncho when María was where?’⁸(Cole 1982:22)

- (13) a. [Nor etorriko d- ela bihar] esan dizu Mireni?
 who come AUX -that tomorrow said AUX Mary-D
 ‘That who will come tomorrow have you told Mary?’ (Ortiz de Urbina 1990:197)
- b. [Mikel-i zer esan ondoren] joan zen etxetik?
 Mikel-D what say after go AUX home-from
 ‘After saying what to Michael did he leave home?’ (Ortiz de Urbina 1990:198)

Basque allows pied-piping of islands larger than clauses, such as the temporal adjunct in (13b), where the clause is part of a larger pied-piped PP; or complex noun phrases, as in (14).

- (14) [Nor-k idatzi-ta-ko liburu-a] irakurri du Peru-k?
 who.ERG write-ADV-of book.ABS read AUX Peter.ERG
 ‘The book written by who did Peter read?’ (Ortiz de Urbina 1989:249)

However, the pied-piping mechanism is typically described as primarily a mechanism for pied-piping clauses. For instance, on Ortiz de Urbina’s description, examples like (13b) or (14) are like pied-piping of a preposition by its nominal complement. In contrast, the EModE pattern, on this analysis, is all about islands. If that island is a clause, it can be pied-piped, but a non-island clause is never pied-piped in EModE. A last-resort condition on pied-piping, such as Chomsky’s, could explain this.

This analysis of EModE is very similar to that suggested by Pesetsky (1987) and Nishigauchi (1990) for island violations by covert movement in Japanese.⁹ At issue

⁸ The island status of the clause in (12b) is not clear, as these clauses can also be extracted from.

- (i) [may -pi] -taj [___ Marya ka -jpi] Juan ruwana -ta randi -rka?
 where -in -Q María be -ADV Juan poncho -ACC buy -PAST -3
 ‘Juan bought a poncho when María was where?’ (Cole 1982:22)

The same is not true in Basque, though.

- (ii) *Zer joan ziren hemendik [___ ikusi ondoren]?
 What.A go AUX here-from see after
 ‘hat did they leave here after they saw?’ (Ortiz de Urbina 1989:252)

⁹ There is one detail which casts doubt on Basque as an overt counterpart of LF pied-piping in Japanese. This is that clausal pied-piping exhibits an argument–adjunct asymmetry in Basque.

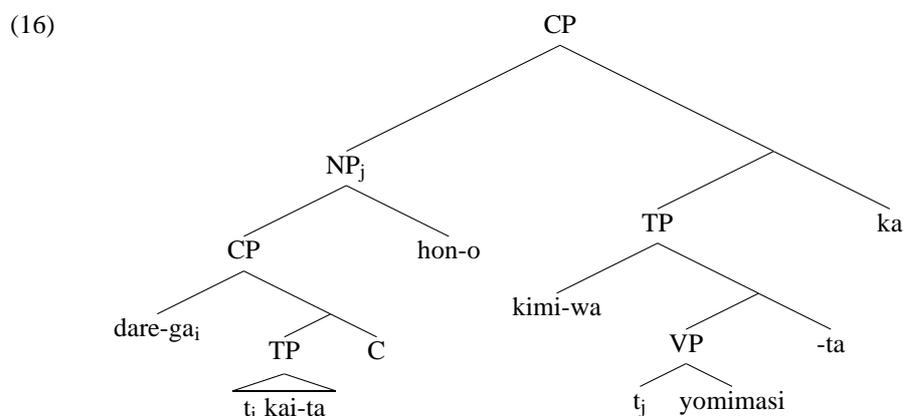
- (i) a. [[Nor-k egin-da-ko] lana] gustatzen zaizu?
 who.ERG do-ADV-of work like AUX
 ‘The work done by whom do you like?’
- b. *[[Zergatik egin-da-ko] lana] gustatzen zaizu
 why do-ADV-of work like AUX
 ‘The work done why do you like?’ (Ortiz de Urbina 1989:256)

This asymmetry is analysed by Ortiz de Urbina as the result of an ECP violation at LF in (ib): although *zergatik* governs its trace at S-structure, Ortiz de Urbina hypothesises a further movement taking *zergatik* outside the complex noun phrase. This leaves the trace of *zergatik* in its S-structure position ungoverned at LF, yielding an ECP violation.

here is the fact that examples like (15) are acceptable, despite the *wh*-pronoun *dare* being inside an island (a complex noun phrase), and the interrogative scope marker *-ka* outside it.

- (15) Kimi-wa [[dare-ga kai -ta] hon] -o yomi-masi -ta ka?
 You -TOP who -NOM write -PST book -ACC read -PST -Q
 ‘You read books that who wrote?’ (Nishigauchi 1990:48)

Pesetsky and Nishigauchi argue that, rather than taking this as evidence, as Huang (1982) did, that subjacency only constrains overt movement, we should adopt an analysis according to which the *wh*-pronoun raises within the island at LF, and subsequently pied-pipes the whole island to the scope position, as shown in (16). As neither movement crosses an island boundary, subjacency is respected.



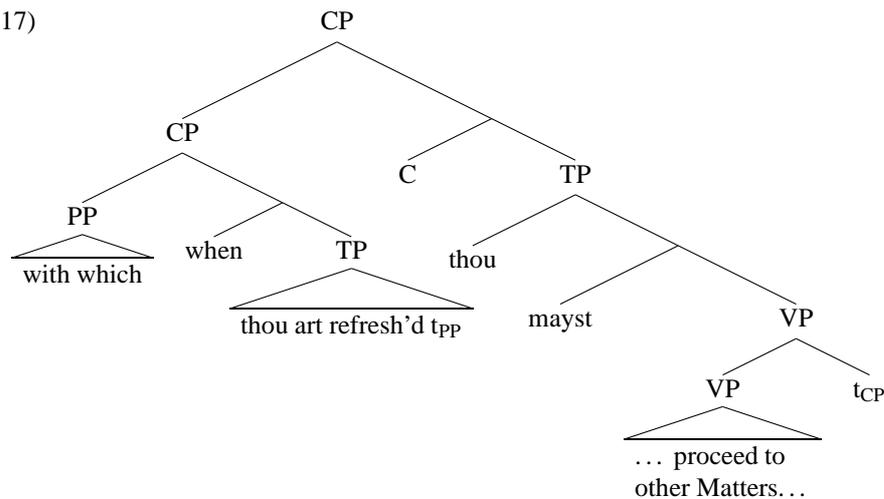
We may hope, then, that EModE shows just the same set of movements, only overtly. According to this analysis, a *wh*-pronoun would move within an island, reaching a position from which it could pied-pipe that island to the front of the relative clause.

Similar asymmetries are found in Japanese covert *wh*-movement (examples again from Ortiz de Urbina):

- (ii) a. [[dare-ga sore-o te-ni ireta] koto]-o sonnani okotteru no?
 who.NOM it.ACC obtained fact.ACC so.much be.angry Q
 ‘Who are you so angry about the fact that obtained it?’
 b. *[[Taroo-ga naze sore-o teni ireta] koto]-o sonnani okotteru no?
 Taroo.NOM why it.ACC obtained fact.ACC so.much be.angry Q
 ‘Why are you so angry about the fact that Taro obtained it?’

However, straightforward application of Ortiz de Urbina’s analysis of Basque to Japanese leads to a paradox. The analysis of the argument–adjunct asymmetry rests on postulation of movement out of the complex noun phrase at LF. However, if such movement is possible, we lose our account of the motivation of LF pied-piping of islands.

(17)



There are certainly good reasons for wanting this analysis to work, then. It is natural to expect such operations to exist on a minimalist, last-resort, approach to pied-piping, and it would provide overt evidence for a set of covert operations claimed to occur in Japanese. It would also, incidentally, provide an argument for the existence of absolute islands. However, we will see in the next section that there are several aspects of RLIs that the island pied-piping analysis cannot adequately explain.

2.2 Problems

Despite the attractions of the island pied-piping analysis, there are many aspects of the RLI construction where it is less than explanatory. I will discuss three of these here.

The first worry concerns the assumption that the island has *moved* to its final position. On the logic of the island pied-piping analysis, a constituent (the island) ends up at the left of the RLI because it has been dragged along by A' -movement of the relative pronoun. The island has no other business being at the left of the RLI.

This suggests that we might expect to find cases where an island ends up at the left edge of an RLI, which could not appear in that position in the absence of A' -movement. Certainly, this is how things work in well-studied cases of pied-piping. In (18a), the preposition *to* appears at the left of the clause as a result of being pied-piped by the *wh*-pronoun *whom*. If there is no *wh*-movement, as in (18b), the preposition cannot appear at the left edge of the clause.

- (18) a. To whom did you speak?
b. *To I spoke John.

In contrast, every island that we find in an RLI is able to appear at the left edge of a clause, even in the absence of A' -movement of the relative pronoun. So we never find a clear gap anywhere else in the clause: there are no examples like (19), where an RLI

has been formed by pied-piping an island which could not otherwise have occurred in its leftward position.

- (19) a. *John, [[who_i [____i and Bill]]_j Susan talked to ____j last night]
 b. *John, [[who_i [a friend of ____i]]_j Michael thinks [____j talked to Susan last night]]

Given the frequency and general baroqueness of the examples we do find, this cannot be blamed on the complexity of the structures involved.¹⁰ The first problem for the movement analysis just sketched, then, is that there is no direct evidence that the island actually moved from anywhere.

The second problem for the island pied-piping analysis concerns the distribution of RLIs across constructions. The analysis sketched above ties the availability of RLIs to properties of A'-movement. The null hypothesis would therefore be that island pied-piping constructions should be available in all A'-constructions. This is not the case. For example, there are no examples parallel to RLIs among the 6,308 *wh*-questions in the EModE corpus. Even if confusion over subject-AUX inversion might militate against matrix questions like (20a), we would still expect to find it in embedded questions like (20b).¹¹

- (20) a. *[Which married Gentleman (did) a young Gentlewoman seeing ___]
 {fell/ did fall} a laughing?
 b. *I wonder [[which married Gentleman a young Gentlewoman seeing ___]
 fell a laughing].

However, such examples are systematically absent from the Penn-Helsinki Corpus, and also from the literature in which RLIs are documented. Moreover, we have seen that RLIs are not evenly distributed across types of relatives, but are found almost exclusively in nonrestrictive *wh*-relatives. I have only the following three restrictive examples, compared to 401 appositive examples, and even these are still *wh*-relatives, as opposed to relatives with *that*, *zero*, or a doubly filled COMP. This disparity is unexpected under the island pied-piping analysis.

¹⁰ A reviewer notes, however, that these examples could also be ruled out if there were no edge position associated with noun phrases or coordinated phrases, from which *who* could pied-pipe the relevant constituent.

¹¹ There are occasional examples of topicalisation parallel to RLIs in the corpus, such as (i).

- (i) I am the doore; [[by me if any man enter in ___], he shall be saued] (AUTHNEW-E2-H,X,1J.1360)
 [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]

Very similar examples can also be found in Early Modern Dutch.

- (ii) Dese reden Joufvrou Wintergroen verstaende, heeft gheseght daer toe niet te willen verstaen.
 this speech Miss Wintergroen understanding has said there to not to want allow
 'When Miss Wintergroen heard this speech, she said she did not want to allow this.' (Anonymous,
Wonderlicke Avontuer van Twee Goelieven, 1624, cited in Ackema and Neeleman 2007:88)

It will become clear below that, on an IP-adjunction analysis of topicalisation, it is not surprising that it should be precisely here that we find RLI-like examples. Such examples are very scarce in EModE (I have only found eight), for reasons that I do not understand, but they do exist.

- (21) a. the ston [[vpon the whiche ower Savyor standing ___] ascendid in to hevyn] (TORKINGT-E1-H,30.110) [Richard Torkington, *Ye oldest diarie of Englysshe travell, being the hitherto unpublished narrative of the pilgrimage of Sir Richard Torkington to Jerusalem in 1517*, 1517]
- b. By them [[whose words, if men or Angels from heauen gainesaie ___], they are accursed]; by them, [[whom whosoever despiseth ___], despiseth not them, but me] (HOOKER-A-E2-H,8.88–9) [Richard Hooker, *Two Sermons upon Part of S. Judes Epistle*, 1614]

The third problem concerns a further quirk in the external syntax of RLIs: they are almost uniformly sentence-final (the one exception being (21a), which is followed only by a nonrestrictive relative), and in some cases (for example (22)), they are separated from their antecedent by a full stop or other heavy punctuation (for example, a colon or semicolon plus a capital letter).

- (22) they deliuered the Epistle. [[Which when they had read ___], they reioyced for the consolation]. (AUTHNEW-E2-P2,XV,20A.1021) [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]

While this punctuation is far from ubiquitous, it is much more common in RLIs than in relatives in general: roughly a fifth of all RLIs are separated from their antecedent by a full stop or question mark, while the corresponding proportion for relative clauses in general is around one in 25. Almost half of all RLIs are separated from their antecedent by something more than a comma (i.e., a full stop, question mark, colon or semicolon), while this is true of just over 10% of relative clauses in general. RLIs, then, are syntactically more independent of their antecedent than regular relatives are, a claim which accords well with the finding that RLIs are overwhelmingly appositive, given the analyses of appositive relatives as semi-independent clauses in Ross (1967), Emonds (1979), McCawley (1982), and much subsequent work.¹²

These three worries do not instantly show that the island pied-piping analysis is wrong. However, it is clear that, if that analysis is to be tenable, it needs to be supplemented with nontrivial orthogonal restrictions, and no obvious way to proceed comes to mind. Instead, the following section will develop an alternative, based on the claim that the leftward island in an RLI is base-generated in that position. On that account, we have no need to say that the island moves from anywhere,¹³ and so no evidence for island pied-piping.

¹² It is not straightforward to determine the patterns of punctuation in regular appositive, as opposed to restrictive, relatives in the corpus, as the two structures are not reliably tagged differently. My impression is that, although appositive relatives clearly use heavier punctuation than restrictive relatives, the tendencies discussed in the text also differentiate RLIs from regular appositives to some extent.

¹³ Technically, the account is compatible with the island having moved to its surface position, provided that that movement is not a result of pied-piping by the relative pronoun. However, I am unaware of any evidence for such movement.

3 RLI without Pied-piping

3.1 Introduction

Part of the appeal of the pied-piping analysis sketched above is that it helps us to maintain the intuition that a relative pronoun should be as structurally close to its antecedent as possible. In a typical Present-Day English relative construction (disregarding cases of extraposition), whether restrictive or not, the relative clause immediately follows its antecedent. On many analyses, a restrictive relative clause is also a sister of its antecedent, and the same is true for at least some analyses of nonrestrictive relative clauses (see Jackendoff 1977 and Demirdache 1991, among others, but also Emonds 1979, McCawley 1982, and Safir 1986 for analyses where nonrestrictive relatives are not underlyingly sisters of their antecedents). This means that the relative pronoun is about as close as it could be to its antecedent: it is the specifier of the CP which takes the antecedent as sister.

In an RLI, there cannot be such a close relationship between the relative pronoun and its antecedent. An RLI typically consists of two clauses, namely an island clause left-attached to a host clause. We have seen in (6) that the relative pronoun never occurs anywhere but at the left edge of that leftward island. This strongly suggests that, in fact, the relative pronoun never leaves that island.¹⁴ At best, then, the relative pronoun is not in the highest specifier position of an RLI, but in the highest specifier of the island clause contained within an RLI. It appears, then, that the relation between the relative pronoun in an RLI and its antecedent is less local than that assumed in many analyses of Present-Day English relatives.

What the island pied-piping analysis would have allowed us to do is maintain the idea that there is a very local relationship between a relative pronoun and its antecedent, despite the appearances to the contrary that we find with RLIs. We would have been able to say that the relative pronoun was really in the highest specifier position within the relative clause, only it had to drag the whole island along with it because it could not leave it behind. This would be similar to many analyses of PP pied-piping in non-P-stranding languages.

However, we have seen in section 2.2 that there are real challenges to the island pied-piping analysis, and consequently to the idea of a very local relationship between the relative pronoun and its antecedent. This section will grasp the nettle, then, claiming that the relative pronoun really is where it appears to be, buried inside the island inside the RLI, and that the relative pronoun is not responsible for the position of the island at the left edge of the RLI.

First, we must show that RLIs really are “built on” constructions in which the island in question can appear at the left independently. Accordingly, the remainder of this subsection lists the major types of RLIs, and the equivalent non-relative structures

¹⁴ This is the major problem with the analysis offered by Felix (1985) for Bavarian German and van der Wurff (1988) for EModE. According to those authors, the relative pronoun leaves the island clause, which means, for instance, that it can reach a position where it c-commands into the host clause, and thereby license a parasitic gap in that clause. As well as the theory-internal problems with movement out of otherwise strong islands in such cases, this analysis makes the incorrect prediction that the relative pronoun should be able to move further successive-cyclically, producing examples like (6d). In EModE, at least, such examples are unattested.

for each case. The next couple of subsections will then show how things can work that way.

In one major type of RLIs, the island is a finite adverbial clause of the kind still found left-adjoined to clauses in Present-Day English. (23) gives examples with *when*, *if*, and *though*-clauses.

- (23) a. receive then this Draught [[with which when thou art refresh'd __], thou mayst more strongly proceed to other Matters which yet remain]. (BOETHPR-E3-H,201.466) [Richard Preston (tr.), *Of the Consolation of Philosophy*, 1695]
- b. I make a square, that is G.H.K.L, [[In which square if I drawe crosse lines __ frome one side to the other, according to the diuisions of the line G.H], then will it appear plaine, that the theoreme doth affirme]. (RECORD-E1-H,2.F1R.312) [Robert Record, *The Path-way to Knowledge, Containing the First Principles of Geometrie*, 1551]
- c. 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]. (MILTON-E3-H,X,149.76) [John Milton, *The history of Britain, that part especially now call'd England*, 1670]

In one variant, as in (23a), the host clause is unaltered by the presence of the left-adjoined island. In another, as in (23b–c), a particle such as *then* or *yet* appears in the host clause. This particle is also sometimes accompanied by subject-AUX inversion, as in (23b). All of these structures are, unsurprisingly, also found outside of relative clauses.

- (24) a. [[when he was euery night cast into a sound sleepe]; then when he wakt hee was sure of meate from heauen to feede on] (ARMIN-E2-P1,22.245) [Robert Armin, *A Nest of Ninnies*, 1608]
- b. [[If ye continue in my word], then are yee my disciples indeed]. (AUTH-NEW-E2-H,VIII,20J.1087) [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]
- c. 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]. (LELAND-E1-H,71.37) [John Leland, *Itinerary*, 1535–43]
'And though the upper part of Weardale is not very fertile for growing corn, there is very fine grass in the dale itself where the river passes'

Similarly, there is at least one case of an RLI built on a comparative correlative, where a broad consensus (e.g., Culicover and Jackendoff 2005, den Dikken 2005) takes the left clause to be subordinate to the right clause.¹⁵

¹⁵ The nature of this subordination is more open to debate, with most authors assuming that the relationship is one of left-adjunction, while Culicover and Jackendoff (2005) state that the subordination is semantic, with the two clauses otherwise being only paratactically related. I will have to steer clear of this debate here, although it should be clear that similar issues arise in the analysis of RLIs. In particular, some factor must ensure that RLI-like constructions are unavailable in *right*-adjunction structures. This is plau-

- (25) 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]. (TILLOTS-B-E3-H,450.81) [John Tillotson, Sermon, 1679]

Although comparative correlatives are rare in the Penn-Helsinki corpora (I have found only eight tokens), again, they are clearly also acceptable without the relative pronoun.

- (26) The sooner a child is put to School, the better it is (HOOLE-E3-H,2.8) [Charles Hoole, *A New Discovery of the Old Art of Teaching Schoole*, 1660]

There are also several RLI types built around nonfinite constituents. One of these, with a leftward purpose clause, is illustrated below.¹⁶

- (27) if it (=your butter) be ouer cold it will not come at all, but make you wast much labour in vaine, [[which faults to helpe __] if you churne your butter in the heate of Sommer it shall not be amisse, if ...] (MARKHAM-E2-H,2,112.237) [Gervase Markham, *Countray Contentments*, 1615]

The non-relativised equivalents of these, as in (28), are still familiar from Present-Day English.

- (28) [[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.] (BRINSLEY-E2-P1,16.97) [John Brinsley, *Ludus Literarius or The Grammar Schoole*, 1627]

Finally, there are two types of RLI built around participial absolute structures, one (29a) with a present participle and one (29b) with a past participle.

sibly the same factor which distinguishes regular comparative correlatives from the “inverse” construction discussed by Culicover and Jackendoff (see also Srivastav 1991 on differences between Hindi correlatives and extraposed relatives), in (i).

- (i) Mary got angrier and angrier, the more pictures she looked at. (Culicover and Jackendoff 2005:505)

Culicover and Jackendoff show at length that, despite the superficial similarity between regular comparative correlatives and the inverse construction in (i), the two constructions behave differently in a variety of ways. The moral of this story is that we cannot just take a left-adjunction structure, however we may ultimately analyse it, and simply flip the order of the major constituents to obtain a legitimate right-adjunction structure. This, presumably, is what lies behind the absence of relatives with *rightward* islands in any period of English.

¹⁶ Purpose clauses are distinguished among structures underlying RLIs, in that they have a right-adjoined variant from which extraction is attested in EModE, as it is in Present-Day English.

- (i) I haue finished the worke [which thou gauest me [to doe __]]. (AUTHNEW-E2-P1,XVII,1J.568) [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]

This provides further evidence that islandhood is not, in fact, the motivating factor behind the derivation of RLIs.

- (29) a. 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] (COVERTE-E2-H,16.88) [Robert Coverte, *A Trve and Almost Incredible Report of an Englishman*, 1612]
- b. having opened the Letter, he gave it to me to read for him, [[which __ ended], he said he would answer it] (DRUMMOND-E3-P1,2.4,201.33) [John Drummond, 1st Earl Melfort, Letter to King James the Second from Rome, 1690]

A variant of (29a), without an overt subject in the host clause, was seen in (6a), repeated below, with another example.

- (30) a. A married Gentleman coming through Canterbury, his Horse threw him, [[which a young Gentlewoman seeing __], fell a laughing] (PENNY-E3-H,161.473) [Anonymous, *Penny Merriments*, 1685–7]
- b. and gaue their ship a mighty leake, insomuch as the crack made them all screeck out: [[which Jemy, hearing __], was almost dead with feare]. (ARMIN-E2-P1,18.103) [Robert Armin, *A Nest of Ninnies*, 1608]

These structures are probably extinct in Present-Day English, although superficially similar structures clearly persist. Among the properties which are no longer found is the fact that the subject in these participial phrases takes nominative case, instead of the expected default accusative. Examples like the following arose in the 14th century and became widespread by the 16th.

- (31) a. [[he being gone a visiting his Friends at Black-Ladies], I writ to him] (OATES-E3-H,4,82.C1.310) [Trial of Titus Oates, 1685]
- b. three or four Male-Carps will follow a Female; and . . . [[she putting on a seeming coyneess], they force her through weeds and flags] (WALTON-E3-H,295.282) [Izaak Walton, *The Compleat Angler*, 1676]

Corresponding examples with past participial absolutes and subjects with distinctive case forms are rare (the only example in the corpora is (32a), with a nominative pronoun) but a few supplementary examples in Visser (1963) suggest that subjects universally take the nominative in this construction too. Regardless, the past participial absolute construction is quite common with other subjects, as in (32b).

- (32) a. [[she gone], comes my wife and to walk in the garden] (PEPYS-E3-H,8,315.235) [Samuel Pepys, Diary, 1667]
- b. How can it be then, that, [[beginning knowen], the end thereof thou knowest not]? (BOETHEL-E2-P1,18.155) [Elizabeth I (tr.), *De Consolatione Philosophiae*, 1593]

This completes the survey of types of RLI. It is clear that in all of these cases, an island can be present in the leftward position in non-relativised structures just as readily

as in RLIs.¹⁷ This allows us to state some of our earlier tentative generalisations more confidently. Specifically, all the indications are that RLIs are not island pied-piping structures, and so the relative pronoun is not responsible for the position of the island to the left of the host clause. Adding in the evidence from (6) above that the relative pronoun never leaves the island, we are led to the conclusion that the relative pronoun is hierarchically quite remote from its antecedent, even if there is a tendency for the relative pronoun to be string-adjacent to its antecedent. The relative pronoun has moved to the highest specifier position within the island, which is itself properly contained within the RLI, but the pronoun is no closer to its antecedent than that.

There are two major questions raised by this. One concerns the relationship between the relative pronoun and its antecedent, while the other concerns the position of the subject in examples like (30). These two questions are addressed in the following subsections.

3.2 Semantic Dependencies in RLIs

We have seen that the relative pronoun in an RLI is more deeply embedded than the relative pronoun in a typical relative clause. One immediate consequence of this is that RLIs cannot have the semantics commonly assumed in restrictive relative clauses, where *wh*-movement is responsible for creating an object of the right semantic type to function as a modifier. For example, on Heim and Kratzer's (1998) analysis, the relative clause after movement denotes a one-place predicate, which is then able to combine with a noun (also a one-place predicate) to yield a predicate whose extension is the intersection of the extensions of the nominal and relative predicates. The fact that the *wh*-phrase is at the top of the relative clause is therefore very important to Heim and Kratzer's story: the landing site determines the constituent that corresponds to a one-place predicate. However, in RLIs, the *wh*-phrase is buried within the left-adjoined clause, rather than at the top of the whole construction. This means that the relative pronoun is simply in the wrong place to make the whole RLI function like a one-place predicate.

Instead, the relative pronoun in an RLI is a definite anaphoric pronoun, plausibly an E-type pronoun as in the analyses of nonrestrictive relative clauses in Sells (1986), Demirdache (1991), and del Gobbo (2003).¹⁸ The pronoun finds a referent

¹⁷ The only examples not covered under one or other of these headings are the two cases of RLIs built around subjects in (21b), and the following isolated example of an RLI apparently built around a *wh*-fronted complement.

- (i) the Female Palms (which only Bear) will not Bring forth before they are Impregnated at the Roots with the Seed of the Male, first pounded into Meal and sprinkled about them; [[which_i ____i how true]_j I dispute not ____j]; but certainly Tradition has confirmed the Practice, and they are not to be persuaded to neglect the Custom. (FRYER-E3-H,II,183.187–188) [John Fryer, *A new account of East India and Persia, being nine years' travels*, 1672–81]

More data is needed before we can be sure what to make of these examples. In any case, none of these constitute counterexamples to the generalisation at issue here.

¹⁸ One reason for thinking that these relative pronouns are E-type pronouns, rather than, say, demonstratives, is that unlike regular demonstratives, they require a specifically linguistic antecedent. There are no

from the preceding discourse, without help from any particular syntactic relation. Such an analysis is also implied by older accounts such as McCawley (1982), on which the appositive relative is not sister of the antecedent, and also by many base-generated analyses on which an appositive relative adjoins above the determiner.¹⁹ Indeed, we have already seen that most examples of RLIs in this paper have close paraphrases with definite anaphoric or demonstrative pronouns *in situ*. This suggests that a major difference between this use of relative pronouns and regular pronouns is purely syntactic, in that demonstratives typically remain *in situ*, while relative pronouns always front.

There is a telling difference between the behaviour of appositive relative clauses in EModE and in Present-Day English. Today, a fairly simple generalisation can be made concerning the placement of a nonrestrictive relative: cases of extraposition aside, a nonrestrictive relative appears immediately to the right of its antecedent, regardless of the syntactic category of that antecedent. Extraposition is very limited: a nonrestrictive relative modifying an object or (very marginally) a subject can be extraposed across the verb and/or a sentence-final adjunct. Extraposition from other positions or across other material is generally ungrammatical.

- (33) a. (i) I met John yesterday, who I like a lot.
 (ii) ??John arrived yesterday, who I always enjoy speaking to.
 (iii) ??John spoke yesterday, who I always enjoy listening to.
 b. (i) John_i met Harry_j yesterday, who_{*i/j} I like a lot.
 (ii) *I bought John a drink yesterday, who I like a lot.

This had led many researchers (notably Jackendoff 1977, Fabb 1990, and Demirdache 1991), to assume that a nonrestrictive relative clause must either form an underlying constituent with its antecedent, or at least be string-adjacent to it.²⁰

The same, however, is apparently not true of EModE. In earlier stages of the language, the relationship between the positions of an antecedent and a nonrestrictive relative is much less constrained. In (34a), a subject of a transitive predicate provides the antecedent for a sentence-final relative clause, while the direct object of a V-NP-PP construction does the same in (34b).²¹

examples of people saying *Which was interesting to comment on real-world events (compare *That was interesting*). In the terms of Hankamer and Sag (1976), then, the relative pronoun, like an E-type pronoun, is a surface anaphor.

¹⁹ This does, of course, beg the question of the formal identity between the *wh*-pronouns in restrictive relative clauses and in RLIs, but this is a common issue in the semantics of pronouns, and not specific to the cases at hand.

²⁰ The same appears to be implied by the discussion of the operation “attach α ” in Safir (1986), but the exact constraints on this attachment operation are not spelled out in that paper.

²¹ Remote antecedents like these pose a challenge to Bianchi’s (1999) analysis of RLI-like constructions in Medieval Italian. On that analysis, a functional head X mediates the relationship between the pronoun in a nonrestrictive relative (the complement of X) and its antecedent in [Spec,X], and the relative pronoun fronts in order to establish a relationship with that functional head. RLIs emerge as a result of interaction of such overt fronting with pied-piping, making this a close relative of the island pied-piping analysis sketched in section 2. Of course, the specifier and complement of a null head should be string-adjacent, all else being equal, which is not the case in (34). It would be stretching the point somewhat to say that such examples make it impossible to extend Bianchi’s theory, couched as it is within the movement-heavy terms

- (34) a. We_i haue cause also in England to beware of vnkindnesse, [who_i haue had, in so fewe yeares, the Candel of Goddes worde, so oft lightned, so oft put out, and. . .] (ASCH-E1-P2,16R.135) [Roger Ascham, *The Scholemaster*, 1563–8]
- b. Learning is, both hindred and iniured too by the ill choice of them, that send yong scholers_i to the vniuersities. [Of whom_i must nedes cum all oure Diuines, Lawyers, and Physicians.] (ASCH-E1-P1,6V.75) [Roger Ascham, *The Scholemaster*, 1563–8]

This last example is particularly interesting, because the first sentence ends with a noun phrase, *them that send young scholars to the universities*, which could still today function as an antecedent of the string-adjacent relative PP *of whom*. However, the meaning makes it clear that the intended antecedent of *of whom* is not this larger noun phrase, but *young scholars*, properly contained (and nonfinal) within it. It is therefore not even possible to claim that the antecedent of an EModE relative pronoun must be the closest appropriate referent, where “appropriate” takes into account factors such as [\pm human]. In (34b), the closest appropriate antecedent is *them that send young scholars to the universities*, but the intended antecedent is actually *young scholars*. Further examples making the same point are in (35).²²

- (35) a. for thy ankers, that is to saye: thy frendes_i do styke fast to the_j, [whych_i will not suffer the to wante comforte of the tyme presente, nor hope of the tyme to come]. (BOETHCO-E1-P1,37.344) [George Colville (tr.), *De Consolatione Philosophiae*, 1556]
- ‘for your anchors (that is to say, your friends) do stick fast to you, which will not allow you to lack comfort in the present time, nor hope in the time to come’

of the LCA, to EModE, but a substantial amount of extra work would be required to reconcile the word orders in (34) with Bianchi’s view of antecedent, X, and relative clause as Spec, Head, and Complement.

²² Two further comments are worth making here. Firstly, it was still possible at this stage, as it marginally is today, for a relative clause to front a full DP with a relative determiner, rather than just a relative pronoun. This could aid the retrieval of the intended antecedent in examples such as (36c) in the text below. Secondly, it is possible that the adjacency requirement in Present-Day English is related to the often-noted impossibility of stacking nonrestrictive relatives, as in (i).

- (i) a. People who go to MIT who like math will get a job.
 b. *John, who goes to MIT, who likes math, will get a job. (Emonds 1979:222, attributed to Chomsky)

Stacking nonrestrictive relatives is apparently possible in EModE examples such as (ii), which occurs in the context of an argument between William Roper (*I*) and Thomas More (*him*).

- (ii) That vyle tearme, I cry god mercy, did I geeue him_i. Who_i, by thes wordes perceiuinge me in a fvme, said merily vnto me: “Well, well, sonne Roper, It shall not be so, It shall not be so.” Whom_i, in xvj yeares and more, being in house conuersant with him, I could neuer perceiue as much as once in a fvme. (ROPER-E1-H,36.22–24) [William Roper, *The Lyfe of Sir Thomas Moore, Knighte*, c.1555]

- b. They went ouer y^e water_i to the churche of the sayde Seyntis_j, [whiche_i is an arme of the see] (CHAPLAIN-E1-P2,7.72) [Anonymous chaplain, Journal, 1506]

This potential remoteness of the antecedent from the relative pronoun is, unsurprisingly, found in RLIs and RLI-like constructions, too. We have already seen one relevant example in a true RLI, namely (3c), repeated in (36a) below. (36b–c) contain similar examples, with resumptive pronouns in the place of gaps—we will see more of this type of example in section 4.

- (36) a. And it came to passe in those dayes that she_i was sicke, and died: [[whome_i when they had washed __], they laid her in an vpper chamber] (AUTHNEW-E2-P2,IX,20A.438) [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]
- b. Do [a longe rowe of seruauntes goyng in order waytyng vpon the]_i, make the happye and good? [[whyche_i yf they be euyll manerd], then be they a perilous charge to they house, and a veheme^t greuous burden to the, beyng their mayster]. (BOETHCO-E1-P1,42.434) [George Colville (tr.), *De Consolatione Philosophae*, 1556]
 ‘Do a long row of servants going in order waiting upon you, make you happy and good? Which if they be evil mannered, then they will be a perilous charge to your house, and a vehement grievous burden to you, being their master.’
- c. For whosoeuer wil reme^{ber} hymselfe of his pleasurs_i, he shall well knowe that the endes thereof be sorow full and greuous. [[[Whyche pleasures temporall]_i if they coulde make men blessed and happye], then is there no cause but that brute beastes may also be called blessed, whose hole intent and purpose, hasteth to fulfill their bodelye plesure]. (BOETHCO-E1-P2,65.180) [George Colville (tr.), *De Consolatione Philosophae*, 1556]
 ‘For whosoever will remind himself of his pleasures, he shall well know that the ends thereof are sorrowful and grievous. Which temporal pleasures if they could make men blessed and happy, then there is no cause but that brute beasts may also be called blessed, whose whole intent and purpose hastens to fulfil their bodily pleasure.’

For our present purposes, the interest of this potential remoteness lies in what it suggests about the relation between the relative pronoun (and the relative clause containing it) and its antecedent. The relative pronoun in an RLI or a regular nonrestrictive relative is an E-type pronoun, and as such is in principle able to pick up an appropriate linguistic antecedent without requiring any particular syntactic configuration. The restricted distribution of nonrestrictive relatives in Present-Day English suggests that some additional syntactic requirement holds of nonrestrictive relative clauses, or their relative pronouns. The references given above are full of suggestions for exactly how this constraint should be formulated, but that need not concern us too much here. The more important point here is that this additional constraint clearly did not hold in EModE. To be sure, the relative pronoun does not find an antecedent over arbitrary

distances, but this is typical of pronouns in general, as described at length by Ariel (1990), for example.

In fact, this syntactic freedom means that we do not need to postulate *any* syntactic link between an RLI and its antecedent. The only dependency for which we have any evidence is the semantic dependency of the relative pronoun on its antecedent. This, then, is a hallmark of an RLI: the island clause is syntactically dependent on the following host clause, which is not, itself, dependent on anything. However, the relative pronoun fronted within the island clause is semantically dependent on material contained in the antecedent clause.

I wish to make a stronger claim, namely that RLIs (as opposed to regular nonrestrictive relatives, which can also occur sentence-medially in EModE) are necessarily unembedded. Accepting that an RLI is syntactically independent of its antecedent gives us an explanation for the fact noted in section 2.2 that RLIs are sentence-final, and frequently separated from their antecedent by heavy punctuation (Bianchi 1999 refers to such cases of intersentential relativisation as *relatifs de liaison*). This comes about because RLIs, as unembedded sentences, precede or follow other unembedded sentences, rather than occurring in the middle of them.

The above considerations, then, account for two restrictions on RLIs: they are appositive, because the *wh*-phrase is too deeply embedded to allow them to function semantically as restrictive relatives; and they come at the end of a sentence because the left-adjoined clause is dependent syntactically on what follows, rather than what precedes, and that following clause is generally unembedded.

3.3 The Subject of RLIs

We have seen that the *wh*-phrase in an RLI occupies a left-peripheral position within an island left-adjoined to a host clause, and that it never reaches a position in that host clause. However, this leads to complications with examples like the following.

- (37) a. And Mellitus by preaching converted the East-Saxons. . . [[Whose conversion Ethelbert to gratulate __], built them the great Church of St. Paul in London to be their Bishops Cathedral] (MILTON-E3-H,X,147.52) [John Milton, *The history of Britain, that part especially now call'd England*, 1670]
- b. The present came, [[which Jack seeing __], made legs to the gentleman] (ARMIN-E2-P2,36.227) [Robert Armin, *A Nest of Ninnies*, 1608]

There is also at least one similar example involving a finite RLI.

- (38) his horse that was called modicum wherof the byssop & his serua^tes ete p^t [[which whe[~] y^e bisshop knew __ afterward] was gretly displeid]. (MERRYTAL-E1-P2,145.519) [Anonymous, *A Hundred Mery Talys*, 1526]
- 'his horse that was called Modicum, whereof the bishop and his servants ate part, which when the bishop knew afterward was greatly displeased.'

The problem here is that, because the *wh*-phrase is within the left-adjoined clause, the subject immediately following the *wh*-phrase must also be within that clause. Therefore, it does not c-command anything outside of that clause. However, that subject also apparently functions as the subject of the predicate contained in the host clause, yielding an apparent violation of the c-command condition on predication.

Such a pattern, though, is not specific to the analysis of RLIs, but found repeatedly in Germanic. Consider first the following type of German coordinate structures, discussed in Hohle (1990), Kathol (1992), Heycock and Kroch (1994), and elsewhere.

- (39) In den Wald_i ist der Jäger ____i gegangen und hat einen Hasen gefangen.
 Into the forest is the hunter gone and has a hare caught
 ‘The hunter went into the forest and caught a hare.’ (Kathol 1992:267)

An EModE example making a similar point, but clearly parallel to RLIs in other respects, can be found in Charles Jarvis’ (1742) translation of *Don Quixote*.

- (40) All which Don Quixote believed ___, and said he was there ready to obey him; and desired to finish the business with the utmost dispatch. (Charles Jarvis (tr.), *Don Quixote*, 1742, Oxford World’s Classics edition, p.36)²³

Such examples present a sort of bracketing paradox. On the one hand, the Coordinate Structure Constraint bars extraction from coordinate structures, and so the most attractive analysis is one in which the fronted *In den Wald* does not leave the first conjunct. But that analysis leads to apparent problems with the principle of same-type coordination, because it seems that we would be conjoining the full proposition *In den Wald ist der Jäger gegangen* with the subjectless predicate *hat einen Hasen gefangen*.

Of course, the understood subject of the second conjunct is *der Jäger*, buried within the first conjunct. So to rephrase the problem, we have to explain how *der Jäger* can also function as the subject of the second conjunct, which it does not c-command. This is parallel to the problem of non-c-commanding subjects in Early Modern English RLIs illustrated in (37).

A further example of the same phenomenon can be found in Early Modern Dutch, as described in Ackema and Neeleman (2007).

²³ Compare the original Spanish, with an anaphoric clitic pronoun:

- (i) Todo se lo creyó D. Quijote, y dijo que él estaba allí pronto para
 Everything REFL 3SG.CL.ACC believed Don Quijote and said that he was there soon for
 obedecerle, y que concluyese con la mayor brevedad que pudiese.
 obey.INF-3SG.CL.DAT and that conclude.SUBJ.3SG with the greatest brevity that can.SUBJ.3SG
 (Miguel de Cervantes Saavedra, *El ingenioso hidalgo Don Quijote de La Mancha*, 1866 edn.,
 Leipzig: F.A. Brockhaus)

- (41) De Neapolitanen, Spaenschen ende Walen hare Victory vervolghende,
 the Neapolitans, Spanish and Walloons their victory pursuing,
 en Sr. Waterbrandt op sijn stuck lettende, kreegh onder de dooden
 and Mr. Waterbrandt on his business taking.care got among the dead
 elders een Spaens Kasack by der hande [...] elsewhere a Spanish army.coat by the hand
 ‘While the Neapolitans, Spanish and French were pursuing their victory,
 and Mr Waterbrandt was looking out for himself, he [i.e. Mr Waterbrandt]
 obtained a Spanish army coat from among the dead elsewhere.’ (anony-
 mous, *Wonderlicke Avontuer van Twee Goelieven*; 1624, cited in Ackema
 and Neeleman 2007:88)

As Early Modern Dutch was a V2 language, one and only one constituent must come before the finite matrix verb *kreegh*. Here, that constituent is the conjoined phrase *De Neapolitanen... lettende*. This entire phrase occupies the initial position before the matrix verb. However, the subject of that matrix verb is *Sr. Waterbrandt*, embedded within the coordinated phrase. Once again, then, we are confronted with the question of how *Sr. Waterbrandt* can apparently function as the subject of the matrix predicate, when it does not c-command that predicate.

I have no original story about how to resolve this. Ackema and Neeleman argue that there is a type of *pro*-drop in Early Modern Dutch, which, because of discourse accessibility conditions, is restricted to constructions like this. As far as I can see, if this analysis is tenable for Early Modern Dutch, it is transferable to EModE. Something similar has also been adopted in a series of papers (Rögnvaldsson 1982, Bresnan and Thráinsson 1990) on an Icelandic coordination phenomenon illustrated in (42).

- (42) a. Deir sjá stúlkuna og finnst (*finnast) hún álitleg.
 They.NOM see.3PL the.girl and finds.3SG find.3PL she attractive
 ‘They see the girl and find her attractive.’
 b. Deim líkar maturinn og borða (*borðar) mikið.
 Them.DAT likes.3SG the.food and eat.3PL eats.3SG much
 ‘They like the food and eat much.’ (Rögnvaldsson 1982:559–560)

Here, the verb in the second conjunct assigns a different subject case from the first: one requires a nominative subject, with full agreement, while the other requires a dative subject, with default agreement. And each verb agrees as expected, but the noun takes the case assigned by the verb in the first conjunct. The above authors resolve this clash by assuming either a null or an elided subject in the second conjunct.

However, there are strong arguments against extending this treatment to West Germanic. Firstly, Kathol (1992) points out that it gives rise to the wrong truth conditions in sentences like (43), in the way familiar from arguments against conjunction reduction.

- (43) Gestern gingen wenige Jäger in den Wald und fingen einen Hasen.
 yesterday went few hunters into the forest and caught a hare

'Few hunters went into the forest yesterday and caught a hare.' ≠ 'Few hunters went into the forest yesterday and they caught a hare.' (Kathol 1992: 272)

Secondly, Heycock and Kroch (1994) show that the extraposition from the subject of the first clause is possible in the Dutch equivalent of examples like (39), but not in cases of full coordination with a pronominal subject in the second conjunct.

- (44) a. Toen kwam een meisje binnen en begon te praten dat nog nooit
Then came a girl in and began to speak that yet never
gesproken had.
spoken had
'Then a girl came in and began to talk, who had never spoken before'
- b. *Een meisje kwam binnen en ze begon te praten dat nog nooit
A girl came in and she began to speak that yet never
gesproken had.
spoken had
'A girl came in and she began to speak, who had never spoken before'
(Heycock and Kroch 1994:268–270)

This suggests that the *pro* analysis cannot extend straightforwardly to all these cases of non-c-commanding subjects. However, it may still be tenable for EModE: there are no examples containing either QP subjects or extraposition from the subject (although such data would inevitably be scarce in any case), so it is not clear that the above objections also apply to RLIs. In any case, more important for my present purposes is that the apparent presence of a non-c-commanding subject in examples like (37) is not unique to RLIs, and therefore does not invalidate the analysis developed in this section.

To recapitulate, then, the relative pronoun in an RLI stays within the island, and does not pied-pipe that island to its position at the left of the host clause. Moreover, the island and host clause form a syntactic unit, but there is no syntactic connection between the RLI and the antecedent clause. This means that the relative pronoun must function semantically like the E-type pronoun found in Present-Day English nonrestrictive relative clauses, rather than the operator in restrictive relative clauses. We therefore have an explanation for the fact that EModE RLIs are nonrestrictive, and never occur sentence-internally. In one common type of RLI, the subject of the island predicate also functions as the subject of the host clause, despite the fact that it does not c-command into that clause. This is similar to many other constructions throughout Germanic, and can plausibly be explained as a very restricted occurrence of *pro*-drop, as in Ackema and Neeleman (2007).

The only unusual things about an RLI, then, are the embedded position of the relative pronoun, and the absence of a syntactic connection between the relative pronoun and its antecedent. This invites the question of why we apparently find RLIs in just a few languages and time periods. I cannot provide a full answer to that, but some hints are provided by related relativisation strategies in English texts immediately preceding the appearance of RLIs. These are examined in the next section.

4 Resumption in Middle English

One salient feature of the stages of English immediately preceding the first examples of RLIs, is the use of resumption in relative clauses. This section provides a few pertinent details about this phenomenon.

Middle English resumption shares with many languages the property that resumptive pronouns are restricted to relative clauses, and are in general only used when the foot of the chain is in a “less accessible” position. The list of such positions is fairly standard: we find embedded subjects resumed, whether or not the resumptive pronoun avoids a COMP-trace violation (45ai–ii). We also occasionally find resumed matrix subjects, as in (45aiii), which could perhaps be interpreted as avoiding a COMP-trace violation. Resumptive pronouns are also found as complements of prepositions, either in a form like *of it* or *thereof* (45b), and as possessors (45c). There is no resumption within classic strong islands such as subjects or adjuncts (I will come back to left-adjoined clauses presently), but it is hard to tell whether this is a real or an accidental gap.

- (45) a. (i) Schal we thanne approchen us to hem [that I have
Shall we then approach ourselves to them that I have
schewed [that *thei* ben lyke to beestes]]?
shown that they be like to beasts
‘Shall we then become similar to them that I have showed to be
like beasts?’ (CMBOETH,448.C2.416) [Geoffrey Chaucer, *Boe-
thius*, c.1380]
- (ii) Here deied Asa, kyng of Juda, þat in his age had sore feet,
Here died Asa king of Judea that in his age had sore feet
[wech passioun oure bokys sey [*it* was podegra]]
which passion our books say it was gout
‘Here died Asa, king of Judea, who had sore feet in old age, a
suffering which our books say was gout’ (CMCAPCHR,33.43)
[John Capgrave, *Chronicle*, before 1464]
- (iii) a cherl hath no temporeel thyng [that *it* ne is his lordes], as
a churl has no temporal thing that it NEG is his lord’s as
they seyn
they say
‘a person outside the nobility has no temporal thing that is not his
lord’s, as they say’ (CMCTPARS,313.C2.1097) [Geoffrey Chau-
cer, *The Parson’s Tale*, c.1390]
- b. (i) þe aray of Thomas howshold [þat all men speken so moche
the array of Thomas’ household that all men speak so much
þerof]
thereof
‘The condition of Thomas’ household, that all men talk so much
about’ (CMMIRK, 39.1133) [John Mirk, *Mirk’s Festial*, before
1415]

- (ii) alle þing [þat þou þinkeſt upon *it*] is abouen þee for þe
 every thing that thou thinkest upon it is above thee for the
 tyme, and bitwix þee and þi God.
 time and between thee and thy God
 ‘everything that you think about is above you for the time being,
 and between you and your God.’ (CMCLOUD,25.175) [anony-
 mous, *The Cloud of Unknowing*, before 1425]
- c. Ande the xviiij day of May he let to be smyte of at Mydlam the
 and the 18th day of May he caused to be smote off at Middleham the
 hedys of theſe men [that [*hyr* namys] folowyn here in wrytynge]
 heads of these men that their names follow here in writing
 ‘And on the 18th of May he caused to be struck off at Middleham
 the heads of the men whose names follow here in writing’ (CMGRE-
 GOR,225.2259) [William Gregory, *Chronicle*, c.1475]

The above examples contain a mixture of *wh*-relatives and *that*-relatives. This is representative: resumption in most of the above configurations can be found in both types of relatives, and those cases unattested in the Penn-Helsinki Corpus are plausibly accidental gaps. The number of attested cases is pretty small: in the period 1150–1500, the corpus yields only 12 tokens of resumption in the above constructions in *wh*-relatives, and 23 in *that*-relatives. Broken down by period, the distribution is as in table 1.²⁴

RPs/100k words	1150–1250	1250–1350	1350–1420	1420–1500
<i>Wh</i> -relatives	0	2.13	1.74	0.75
<i>That</i> -relatives	3.87	1.06	2.23	1.50

Table 1 Distribution of resumptive pronouns by period and relative clause type, excluding examples involving left-adjunction and coordinate structures.

In the earliest period, *wh*-relatives in general are scarce (Allen 1980, Fischer 1992), and so their absence in this construction is unsurprising.²⁵ But if we disregard that earlier period, resumption appears to be available in both *wh*- or *that*-relatives.

By the 15th century at the latest, however, one resumptive construction is found only in *wh*-relatives. This involves left-adjunction structures. In Middle English, RLIs,

²⁴ Where a text is a later copy of an earlier manuscript, I have categorised texts according to the later date. This choice does not significantly affect the issues at hand.

²⁵ This is compounded by the fact that the overwhelming majority of the *wh*-relatives that are found in this period are headed by *wh*-PPs, rather than NPs (compare Allen 1980:196, who notes that the earliest uses of headed *wh*-relatives, in the 12th century *Peterborough Chronicle*, are all formed with *for hwan* ‘for which, on account of which’, and that in the early 13th century, *wh*-relatives were restricted to relativisation of genitives and complements of P; and Romaine 1982, who shows that *wh*-relatives spread from less to more accessible positions on the accessibility hierarchy of Keenan and Comrie 1977). The corpus contains just six tokens from 1150–1250 of relatives headed by regular *wh*-NPs, and a further six headed by possessive *wh*-NPs, in 258,090 words, but it contains dozens of relatives headed by *wh*-PPs. Although Middle English resumption is not limited to NPs, as examples like (45bi) show, NPs form the large majority of the cases of resumption in the corpus.

with gaps inside just the left-adjoined clause, are extremely rare (I have only three examples from the period 1150–1500). However, similar examples are found with resumptive pronouns, either within the left-adjoined clause (46a); in the host clause (46b); or in both clauses (46c). I will call examples such as these *resumptive RLIs*, as opposed to *true RLIs*, where the foot of the chain is a gap inside the left-adjoined clause.

- (46) a. *ziff itt like to thy most gracious lordshipp me to do þis message, I if it pleases to thy most gracious lordship me to do this message I beseche þe, chief soueraygne Lord, graunte me þi signet, [where-of besech thee chief sovereign lord grant me thy signet whereof [when þat she haþ knalage þer-of], þat she may applie hur will to when that she has knowledge thereof that she may apply her will to þi godly purpose].*
 thy godly purpose
 ‘If it pleases your most gracious lordship for me to deliver this message, I beseech you, chief sovereign Lord, give me your sign, so that when she becomes aware of it, she may apply her will to your godly purpose’ (CMROYAL, 258.322) [Sermon, c.1425]
- b. *þat ordre þat was founded at Sempyngham be þe sollicitude of Seynt that order that was founded at Sempringham by the sollicitude of Saint Gilbert, [of which Seynt, [be-cause I mad a special tretis on-to þe Gilbert of which saint because I made a special treatise on the maystir of þat ord], þerfor in þis place I touch no mor of him].*
 master of that order therefore in this place I touch no more of him
 ‘that order that was founded at Sempringham through the care of Saint Gilbert. Because I wrote a special treatise on the master of that order, I say no more about this saint here.’ (CMCAPSER, 147.59) [John Capgrave, *Capgrave’s Sermon*, c.1452]
- c. *For schrewes ... doon ofte time thinges [the whiche thingis, for wicked men do often times things the which things [whan thei han doon hem], they demen that tho thinges ne when they have done them they deem that those things NEG scholden nat han ben doon].*
 should not have been done
 ‘For wicked men... often do things which, when they have done them, they say should not have been done.’ (CMBOETH, 454.C1.552) [Geoffrey Chaucer, *Boethius*, c.1380]

As well as the discrepancy between *wh-* and *that-*relatives in this resumptive construction, it appears that there is another interesting difference between the above examples and those in (45), although the scarcity of relevant examples makes it hard to be sure. This is that the resumptive pronouns in (46) are not necessarily in “inaccessible” positions. Rather, we find relatively many cases, such as (46c), of complements being resumed in resumptive RLI constructions, particularly in Chaucer’s English. This is much rarer in the pattern illustrated in (45).

Although resumption in RLI-like structures had been possible in *that*-relatives until the 14th century, for reasons that I do not understand, these structures are found from 1400 onwards only in *wh*-relatives (the last examples in *that*-relatives are from Chaucer, and Wycliffe's *New Testament*, both from the end of the 14th century), as shown in Table 2.²⁶

RPs/100k words	1150–1250	1250–1350	1350–1420	1420–1500
<i>Wh</i> -relatives	0	0	3.47	2.00
<i>That</i> -relatives	2.32	4.26	0.50	0

Table 2 Distribution of resumptive pronouns in relative clauses containing left-adjunction structures by period and relative clause type.

In the above, I have excluded a fairly common type of resumption, in coordinate structures. This pattern, illustrated in (47), has a resumptive pronoun in the final conjunct, with or (less commonly) without a gap in the first conjunct.

- (47) a. [[On whom thou seest the Spirit [[comynge doun], and [dwellynge on
On whom thou seest the Spirit coming down and dwelling on
hym], this is he, that baptisith in the Hooli Goost.
him this is he that baptises in the Holy Ghost
'Whoever you see the Spirit coming down and dwelling on, is the per-
son that baptises in the name of the Holy Ghost.' (CMNTEST,I,20.71)
[John Wycliffe (rev. John Purvey), *New Testament*, c.1395]
- b. lecherye and þefte and monye oþre syche synnys [þat man [doþ] ___
lechery and theft and many other such sins that man does
in derknesse of nyȝt], and [schameþ of *hem* in lyȝt of day].
in darkness of night and is ashamed of them in light of day
'lechery and theft and many other such sins that man does in the dark-
ness of night, and is ashamed of in the light of day' (CMWYC SER,I,478.3646)
[Wycliffite sermon, c.1400]

This structure is found regularly in both *wh*- and *that*-relatives. The distribution across periods and relative types is given in Table 3 below.

Although there is clearly a difference between the two distributions here, it is not clear to me why this should be, and I must leave it unexplained here. The reason for treating coordinate structures separately is that the syntax of coordination is still a matter of some debate, and so it is not clear how these examples relate to those discussed above. The presence of resumption in both *wh*- and *that*-relatives containing coordinate structures is no surprise, but the reason for the distribution in Table 3 remains unclear.

²⁶ The lack of examples of *wh*-relatives with resumption in left-adjunction structures in the period 1250–1350 may seem surprising, in comparison to the incipient use of *wh*-relatives with resumption in other structures. However, five of the examples of *wh*-resumption from 1350–1500 in Table 2 are actually in later copies of manuscripts from 1250–1350. This suggests that the absence indicated for that period in Table 2 is misleading, and resumptive RLIs were probably already in use in 1250–1350.

RPs/100k words	1150–1250	1250–1350	1350–1420	1420–1500
<i>Wh</i> -relatives	0.77	2.13	0.74	2.25
<i>That</i> -relatives	2.71	0	2.98	2.00

Table 3 Distribution of resumptive pronouns in relative clauses containing coordinate structures by period and relative clause type.

Leaving aside coordinate structures, though, this section has shown that in general, *wh*-relatives with and without resumption appeared in tandem in Middle English. For the most part, the distribution of resumption in *wh*-relatives mirrored that in *that*-relatives: resumption is found mainly of subjects and the complements of prepositions. The patterns of resumption in *wh*- and *that*-relatives diverge in one construction, namely resumptive RLIs, which are found exclusively in *wh*-relatives by the 15th century.

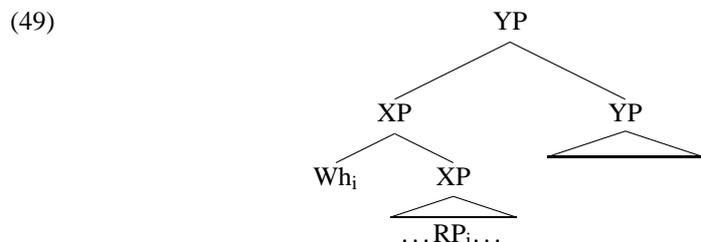
A grammar of the English of this period must account for several facts. Both *that*- and *wh*-relatives can have either a gap or a resumptive pronoun at the foot of the chain. In RLI-like structures, though, only *wh*-relatives are possible, and they must have a resumptive pronoun at the foot of the chain. The account I will propose of these patterns suggests that there are two separate relativisation strategies in Middle English. One involves movement of either a relative pronoun or a null operator to [Spec,C], leaving a gap or, if a gap is excluded by locality principles such as the ECP, a resumptive pronoun, as is standard in the analysis of Present-Day English. The other strategy involves adjunction of a relative pronoun within a left-adjunction structure, binding a resumptive pronoun.

Type 1: Wh-movement One way of forming a *wh*-relative in Middle English is by A'-movement. This is expected to have all the properties associated with such movement, although it is tough to draw solid conclusions about, say, island-sensitivity or weak crossover in a dead language. As there was no doubly filled COMP filter in Middle English, we find *wh*-, *that*-, *wh that*-, and zero relatives in such structures. Although these constructions typically leave a gap at the foot of the chain, resumptive pronouns may be used to avoid violation of locality principles. The fact that resumptive pronouns are typically found in positions such as subject, or complement of P, which are not properly governed, suggests that the locality principle in question is the ECP.



Type 2: Adjunction plus resumption The second relativisation strategy I assume is one whereby an adjoined *wh*-phrase binds a resumptive pronoun to form an A'-chain. I must assume that this option is restricted to relativisation in left-adjunction structures of the type underlying RLIs, given that a wider range of positions, including

direct objects, can apparently be filled by resumptive pronouns in these structures than is possible otherwise. The simplest example of this involves a structure such as the following, remaining noncommittal about the node labels in question.



This structure is sufficient to account for examples like (46a), in which the resumptive pronoun is strictly c-commanded by a relative pronoun within the left-adjoined clause. Given that it is a phrasal adjunction structure, adjunction of the head *that* in a similar configuration is also instantly ruled out, although, as pointed out by an anonymous reviewer, the appositive nature of RLIs may be sufficient to rule out *that* in RLIs, independently of this.

Something more must be said, however, concerning examples like (46b), in which this strict c-command relation fails, and Wh_i binds a resumptive pronoun within YP, which it does not c-command. Plausibly, this reflects the fact that the locality requirements on binding are looser than strict c-command. Pied-piped preposition aside, the binding of the resumptive element by the relative element in (50a) is identical in the relevant respects to binding of a pronoun by a quantified antecedent in (50b): the antecedent does not c-command the bound pronoun, but it is the highest subconstituent within a c-commanding constituent.

- (50)
- a. [[**of which Seynt**, be-cause I mad a special tretis on-to þe maystir of þat ordr], þerfor in þis place I touch no mor **of him**].
 - b. [[**every boy_i**'s mother] loves **him_i**]

Finally, we must account for the absence of resumptive RLIs in *wh that*-relatives.²⁷ In fact, this turns out to be a height effect: we never find the string *wh that X* because *wh* adjoins too high to appear adjacent to *that*.

Given that we are concerned with a biclausal structure here, *that* could in principle appear in two positions: either within the host clause or within the island clause. I will consider each of these in turn.

There is some evidence that the left-adjoined clause is attached to the host clause higher than C^0 . For example, there are several cases, as in (51), in which a left-adjoined clause is followed by subject-AUX inversion in the host clause, a sign of T-to-C movement.

- (51) a. Whan thou sittist at thy mete, *than shuldest thou* chewe vpon chastite
When thou sittest at thy food then shouldst thou chew upon chastity
and clennes
and purity
'When you sit at your food, then you should chew upon chastity and
purity' (CMAELR4,10.268) [Aelred of Rievaulx, *De Institutione In-*
clusarum, before 1450]
- b. As a þorn bringith forth a rose, *so sprang Ydani* of Godwyn
As a thorn brings forth a rose so sprang Ydani of Godwyn
'As a thorn brings forth a rose, so sprang Ydani from Godwyn' (CM-
CAPCHR, 101.2130) [John Capgrave, *Chronicle*, before 1464]

Similar examples can also be occasionally found in EModE RLIs, although I have not found any examples from before 1500.

- (52) a. But we will begin with Lyncolnes Inne diet, where many right wor-
shippfull and of good yeares do live full well; [[whiche, if we find not
our selves the first yeare able to maynetayne ___], *then will we* the next
yeare goe one steppe downe to New Inne Fare] (ROPER-E1-P1,54.33)
[William Roper, *The Lyfe of Sir Thomas Moore, Knighte*, c.1555]
- b. To use Force against her Majesty in her own Realm, must needs be done
with intent to depose her, which Force she must needs resist; [[which if

²⁷ There is one example in the corpus of a resumptive RLI with an apparent doubly filled COMP, namely (i).

- (i) Derfore hit is gret schame of manye mannes woodschype, [whyce þat [whanne þey haue
Therefore it is great shame of many men's folly which that when they have
lyued al here lyf in stynkynde fulþe], ȝit in here oolde age þey nulleþ not wit-drawe
lived all their life in stinking filth yet in their old age they NEG.will not withdraw
hem fro þe companye of suspekt persones]
themselves from the company of suspect persons
'Therefore it is a great shame, due to the folly of many men, that even when they have lived all
their life in stinking filth, in their old age they will not withdraw themselves from the company
of suspect persons' (CMAELR3,30.119) [Aelred of Rievaulx, *De Institutione In-*
clusarum, ms.
Vernon, c.1400]

This example is quite unpredicted on the current analysis, and it cannot be dismissed on the basis of its rarity, given the independent rarity of doubly filled COMPs and resumptive RLIs in Middle English. I have to leave it as an outstanding problem for the analysis presented here.

she be not able to do ___], *then followeth her Death and Destruction*]. (THOWARD2-E2-P2,103.246) [Trial of Thomas Howard, Earl of Surrey, 4th Duke of Norfolk, 1571]

Assuming that the position targeted by subject-AUX inversion is C^0 , the same as the base position of relative *that*, this indicates that the left-adjoined clause is attached above C^0 . Likewise, in (46a), repeated as (53), the complementiser *that*, in the host clause, follows the left-adjoined clause.

- (53) ziff itt like to thy most gracious lordshipp me to do þis message, I beseche þe, chef soueraygne Lord, graunte me þi signet, [[where-of when þat she haþ knalage þer-of], þat she may applie hur will to þi godly purpose]. (CM-ROYAL, 258.322) [Sermon, c.1425]

Therefore, we inevitably find the order *wh island that*, rather than *wh that island*.

We find essentially the same pattern when we consider the C^0 position within the island clause. Here, the element which inevitably intervenes between *wh* and *that* is the adverbial element such as *when* or *if*.²⁸ As the following example illustrates, we reliably find the orders *when that*, and *wh when*, but not the converse, and so by transitivity, we find *wh when that* rather than *wh that when*.

- (54) [[*the whiche manere whan that men looken it in thilke pure clenness the which manner when that men observe it in the same pure cleanness of the devyne intelligence*], it is ycleped purveaunce]; but whanne thilke of the divine intelligence it is called providence but when the same manere is referred by men to thinges that it moeveth and disponyth, than of manner is related by men to things that it moves and disposes then by olde men it was clepyd destyne. [[*The whiche thinges yif that any wyght old men it was called destiny the which things if that any man loketh wel in his thought the strengthe of that oon and of that oothir*], he observes well in his thought the strength of that one and of that other he schal lyghtly mowen seen that these two thinges ben dyvers]. shall light be able to see that these two things are different 'When men observe this manner in the pure cleanness of the divine intelligence, it is called providence, but when that manner is related by men to things that it has power over and rules over, then it was called destiny by old men. And these things, if anyone observes well in his thought the strength of the one and of the other, he shall easily be able to see that these two things are different.' (CMBOETH,451.C2.465) [Geoffrey Chaucer, *Boethius*, c.1380]

Wh, then, simply adjoins too high to permit a *wh that* relative to emerge.

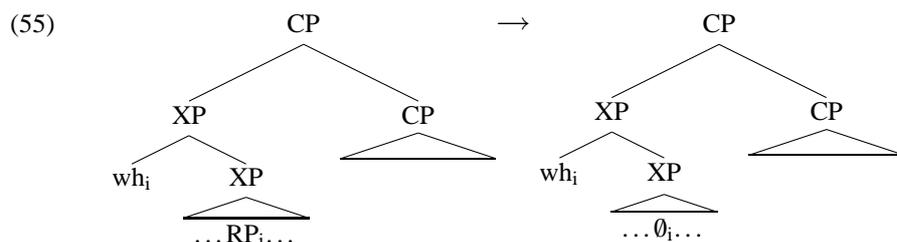
In sum, this section has argued that there are two methods of *wh*-relativisation in Middle English. One is much like Present-Day English: a *wh*-phrase or null operator moves to [Spec,C], leaving a gap, or a resumptive pronoun if conditions on empty categories require one. The other involves base-generation of a *wh*-phrase as an adjunct in a left-dislocation structure, binding a resumptive pronoun. The resumptive

²⁸ The participial absolute constructions, which lack such an element, are unattested at this stage.

pronoun in these latter cases can perhaps be found in any position, not just in positions where the ECP might demand one. Finally, the absence of RLI-like structures in *wh that*-relatives is plausibly a height effect: other elements in the structure must necessarily intervene between the *wh*-phrase and the complementiser. In the next section, we will use this description as a baseline to see how things developed further in the 16th century.

5 Developments in Early Modern English

By the 15th century, we have a resumptive RLI structure in place, as seen in the previous section. All that needs to change for true RLIs to emerge is for the pronoun in a resumptive RLI to become null. So that is what I will assume happened.



Is there any independent evidence for the emergence of null resumptive pronouns? The answer is yes, but not much. Any *wh*-relative leaving a gap is in principle ambiguous between a movement structure and a base-generated binding structure. Positive evidence deciding between movement and null resumption will often therefore be quite subtle. In particular, there is one low-frequency construction which is naturally analysed as involving null resumption. This involves a fronted *wh*-PP, with an NP gap. In such cases, the same preposition appears overtly at the head and the foot of the chain, and the NP antecedent does not c-command the gap site.

- (56)
- a. yif ther be any thing [*to whiche that alle thinges tenden and hyen to* ___], that thing muste ben the sovereyn good of alle goodes.
 that thing must be the sovereyn good of all goods
 ‘if there be anything that all things tend and hie to, that thing must be the sovereign good of all goods.’ (CMBOETH,436.C2.328) [Geoffrey Chaucer, *Boethius*, c.1380]
 - b. and grasshoppes come and breses, [*of which no noubre was of* ___]
 and grasshoppers come and locusts of which no number was of
 ‘and grasshoppers come and locusts, of which there was any number’ (CMEARLPS, 129.5623) [*The Earliest Complete English Prose Psalter*, c.1350]

There is only one example, (56a), of such a structure in a *wh that* relative. This is roughly as expected, given the general scarcity of both [P *wh*]...[P \emptyset] constructions and of *wh*-that relatives, but it does mean that examples like (56a) were also extremely

scarce in a learner’s input. In contrast, there are 133 examples of [P wh]... [P \emptyset] constructions in other *wh*-relatives. Under the analysis developed above, (56a) requires a movement analysis, but it is an isolated example. The more common examples like (56b) are in principle compatible with either a movement or a base-generation analysis. However, on a movement analysis, the doubled preposition is a mystery, while on a base-generation account, there is some hope of explaining it, if a base-generation account can be flexible enough to allow some disparity between the category of the filler site and the head site, or failures of strict c-command in binding of the sort discussed in relation to (50) above. (57) shows binding of a pronoun by a quantifier in basically the same configuration that holds between *which* and the gap in (56).

(57) I danced [with [every syntactician]_i] on his_i birthday. (Richards 2000:196)

Here are the frequencies of occurrence of these preposition-doubling structures across the Middle and Early Modern English periods.

Table 4 Frequency of *P wh_i... P \emptyset _i* constructions in the Penn-Helsinki parsed corpora per 100k words, by period.

1150–1250	1250–1350	1350–1420	1420–1500	1500–1570	1570–1640	1640–1710
1.16	1.06	5.96	4.49	7.29	3.52	4.07

A small amount of evidence was therefore available to the learner supporting the existence of base-generated *A'*-dependencies with a null pronoun at the foot of the chain, particularly from the early 15th century onwards (the examples from the period 1350–1420 mainly come from *Mandeville’s Travels*, dated to c.1400). If such evidence is picked up on by the learner as evidence for a strategy of relativisation by binding of a null resumptive pronoun, everything is in place for the introduction of RLIs, as base-generated *wh*-phrases adjoined to a left-adjoined phrase and resumed by a null pronoun.

This leads to the natural question of why RLIs are not also found from the early 15th century onwards. Three considerations may help explain this apparent delay in their emergence.

Firstly, RLIs are never represented in every text in any period of the corpora. Although some of these gaps are no doubt accidental (and some of the texts are very short), some surely are not. The acquisition of RLIs was never an automatic consequence of exposure to a body of English speech, then. Some learners acquired them, and some did not, presumably with negligible effect on their communicative ability. In that case, we should not expect RLIs to appear on cue once the conditions for their acquisition are all in place, because they are marginal enough that many people fail to acquire them in any case.

Secondly, the fact that the first examples of RLIs, in texts written by adult authors, appear around 1500 does not indicate that RLIs were first acquired around 1500. Rather, those examples may point to acquisition of RLIs some time in the childhood of those authors, in many cases in the latter half of the 15th century (the earliest date

of birth of a user of RLIs in the corpora is Robert Fabyan, born c.1450). That does not eliminate the gap between the time when there was first some evidence for a null resumption strategy, and the emergence of RLIs, but it does at least shrink the gap somewhat.

Finally, doubly filled COMPs in headed relatives declined in the first half of the 15th century. As doubly filled COMPs cannot be generated under the strategy of *wh*-adjunction and resumption, they constitute positive evidence for a strategy of relativisation by movement in late Middle English, which might militate against the adoption of a null resumption analysis of [P *wh*]...[P \emptyset] constructions. Although there are a couple of late, isolated examples of doubly filled COMPs in headed relatives (the last of all coming from the *Hundred Mery Talys* of 1526), these are outliers: figure 1 shows that doubly filled COMPs were widespread in the second half of the 14th century, with a frequency of 27.29 per 100,000 words, or 1 in every 54 headed relatives, but the last regular user of doubly filled COMPs (William Gregory, who used them nine times in 37,326 words, or 24.11 times per 100,000 words) died in 1467.²⁹

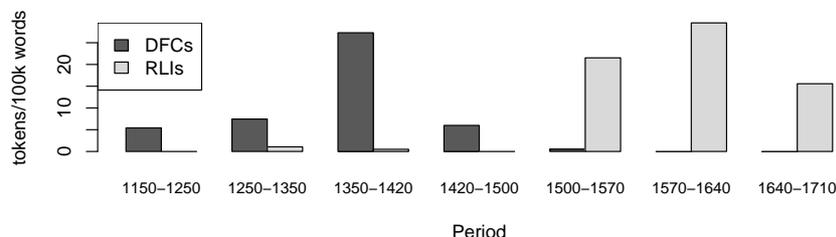


Fig. 1 RLIs and doubly filled COMPs per 100k words by period.

By the mid-15th century, then, the [P *Wh*]...[P \emptyset] construction, naturally analysed as an instance of null resumption, is, if anything, more common than *wh that*-relatives, which constitute evidence for relativisation by movement. This may have increased the chances of a learner including a null resumptive pronoun into his idiolect, and thereby allowing generation of true RLIs.³⁰

²⁹ The full list of later headed *wh that* relatives in the corpora is as follows: 1) Thomas Malory's *Morte Darthur*, finished in 1469, 1 token in 57,775 words (1.73/100k words); 2) *In Die Innocencium* (anonymous), 1497, 1 token in 4,329 words (23.10/100k words); 3) *Mirk's Festial*, written before 1415, 3 tokens in 57,548 words (5.21/100k words); 4) *A Hundred Mery Talys* (anonymous), 1526, 1 token in 20,452 words (4.89/100k words). None of these are robust: in each case except *Mirk's Festial* (which is a copy of an earlier text), we have only a single token; and in each case except *In Die Innocencium* (which is based on a single token in a fairly small sample), the frequency of doubly filled COMPs is much lower than in Gregory. In contrast, the frequency of doubly filled COMPs in Gregory is comparable to the grand average frequency across texts in the period 1350-1420. This suggests that the occurrences of doubly filled COMPs after Gregory are isolated outliers.

³⁰ As Keyser (1975) showed, though, doubly filled COMPs did not instantaneously disappear from other constructions. In the 16th century, doubly filled COMPs persisted in indirect questions (ia), and in subject free relatives (ib).

6 What May Have Happened Next: The Loss of RLI

Against the general backdrop of EModE A'-constructions, RLIs are an anomaly, involving adjunction rather than movement targeting [Spec,C]. In contrast, an account based on movement to [Spec,C] is generally assumed for all Present-Day English relative clauses, and there is no reason to doubt that this was the most widespread method of A'-dependency formation in EModE. We therefore hope to account for the loss of RLIs in terms of a generalisation of *wh*-relativisation by movement to [Spec,C], at the expense of adjunction.

The disappearance of RLIs was gradual. Already, in the last period covered by the Penn-Helsinki corpora, they are noticeably less frequent than they had been. However, some 19th-century authors made occasional use of them (the last example in Visser is from 1883) and it has been suggested to me that they may even be available today, perhaps as a conscious archaism, for a small minority of speakers. Why, though, did they decline?

Firstly, RLIs were always peripheral constructions in English: a learner could quite easily not acquire them. This means that we are looking for an account of why, after a peak around 1600, fewer and fewer learners acquired them. One factor is the availability of the structures underlying RLIs. Although many of these are still available today, at least two have become quite rare. These are the participial absolute constructions, discussed in section 3.3 and illustrated again in (58)–(59), for present participial absolutes, and (60), for past participial absolutes. In each case, (a) gives a declarative example and (b) gives a corresponding relative.³¹

-
- (i) a. a man that knowethe not, [whye that swete thynges agree well to hole folke, and bytter thynges to sycke folk]? (BOETHCO-E1-H,109.846) [George Colville (tr.) *De Consolatione Philosophiae*, 1556]
"a man that does not know, why that sweet things agree well with healthy folk, and bitter things with sick folk."
b. [Who that redeth the boke of Exodi] shall finde the charitie of this man wonderful. (ELYOT-E1-H,151.128) [Thomas Elyot, *The boke named the Gouernor*, 1531]

Even these disappeared well before the end of the 16th century, though.

³¹ A reviewer points out that very similar constructions persist in Present-Day English examples, like the following.

- (i) a. This being the case, there was no point in hanging around.
b. John having left at 6, the children had been alone for three hours.

However, the distribution of such examples is clearly more limited than in earlier times. For me, there are aspectual restrictions on the present participial absolute, so stative examples like the above (assuming that the perfect describes the resultant state of an event, as in, for example, Moens and Steedman 1988) contrast with eventive examples like the following.

- (ii) a. *This making polite conversation difficult, there was no point in hanging around.
b. *John leaving while our backs were turned, we were lost and alone.

If these judgements are accepted, then the difference between Early Modern English and the present day consists in the free availability of eventive present participial absolutes. Why, though, remains an open question.

- (58) a. [[The knight, asking his Lady for his pie], she told him with much adoe she had preuailed, but with no little paines, in seeking quinces] (ARMIN-E2-H,12.139) [Robert Armin, *A Nest of Ninnies*, 1608]
 b. the hot oven, [[which ___ being newly opened], on the sodaine hee was singed both of head and face] (ARMIN-E2-P2,36.205) [Robert Armin, *A Nest of Ninnies*, 1608]
- (59) a. And [[he bearing his crosse], *pro* went foorth into a place called the place of a skull, which is called in the Hebrewew, Golgotha] (AUTHNEW-E2-P1,XIX,1J.833) [Second Oxford Company, *The Holy Bible*, New Testament, Authorized Version, 1611]
 b. the crack made them all screeck out: [[which Jemy, hearing ___], *pro* was almost dead with feare]. (ARMIN-E2-P1,18.103) [Robert Armin, *A Nest of Ninnies*, 1608]
- (60) a. For [[perfection taken away], we can not ymagyne what that is that is imperfect] (BOETHEL-E2-H,62.80) [Elizabeth I (tr.) *De Consolatione Philosophiae*, 1593]
 b. you shall take a pecke of pease, halfe a pecke of Wheate, and halfe a pecke of Oates and grind them all very well together, and then mix them with your malt: [[which ___ done] you shall in all points brew this beere as you did the former ordinary beere] (MARKHAM-E2-P1,2,123.169) [Gervase Markham, *Countray Contentments*, 1615]

Both of these constructions have declined in frequency since the 18th century, and at least the present participial structure eventually disappeared.³² Although this leaves several other constructions on which RLIs could still be built, this could have been the start of a downward spiral for RLIs: it was never necessarily the case that a learner would be exposed to sufficient evidence to acquire RLIs, and as constructions like those in (59)–(60) declined, the amount of evidence available to the learner would have shrunk in parallel, which would have led to fewer learners acquiring RLIs, and fewer RLIs being produced in the material on the basis of which future learners acquired the language, and so on. This seems like a plausible sketch of a mechanism underlying the gradual decline of RLIs.

All of this presupposes, of course, that RLIs do not come for free. The above discussion has contrasted two types of *wh*-relativisation strategies, one based on movement to [Spec,C] and one on adjunction and resumption. I have argued that the latter, but not the former, can produce RLIs. If these two strategies were equally likely to

³² Declarative null subject examples, such as (59a), allow an alternative parse in which the subject is construed in the host clause, c-commanding a null subject, probably PRO, within the left-adjoined clause. Unlike the example from V2 Early Modern Dutch in (41) above, there is little if any evidence against such a parse of these examples. Indeed, such a structure is still freely available in Present-Day English, so we still find examples superficially similar to (59b) in Present-Day English relative clauses, such as the following, from Peter Strawson.

- (i) natural relations... [which [___ being observed (or experienced) or appropriately reported], ___ supply wholly satisfactory explanations of their outcomes, of the state of affairs in which they terminate.] (Strawson 1985:123)

be adopted by the learner, and if both were compatible with the data in the input, we may expect some learners to adopt a base-generation strategy even if they did not hear RLIs in the input, which would play havoc with the above account of the decline of RLIs, as speakers who were never exposed to RLIs might nevertheless be expected to produce them. So something must favour relativisation by movement to [Spec,C] over relativisation by adjunction and binding of a resumptive pronoun, even if both are compatible with the data.

I suspect that two factors are at work here. Firstly, this may be an effect of the subset principle, which states that learners are conservative in the grammars they postulate, adopting the grammar which generalises as little as possible beyond the input. The strategy of *wh*-relativisation by movement to [Spec,C] is less expressive than the strategy of relativisation by adjunction, partly because only the latter can generate RLIs. Secondly, any preference for a unified analysis of all A'-dependency constructions will favour a movement analysis of *wh*-relatives, as the majority of A'-constructions continued to be formed by movement. Accordingly, all else being equal, we expect a learner to adopt a movement strategy rather than an adjunction strategy, and so fail to produce RLIs.

7 Conclusion

This paper has argued for an analysis of RLIs as left-adjunction structures with a definite anaphoric *wh*-pronoun adjoined within the left-adjoined constituent. Based on the history of the relative clause in English, this paper has attempted to provide answers to two questions raised by this construction, namely, why did they arise in English, and why then?

I proposed that RLIs arose as a result of the innovation of a null resumptive pronoun, within an already extant, but highly changeable, strategy of *wh*-relativisation by base-generation and adjunction. Innovations at each stage were guided by principles of conservative learning, based on fluctuations in the observed input. However, the constructions offering positive evidence for either analysis of *wh*-relatives are all quite peripheral and low-frequency. Slight variations in the input on which the learner bases his grammar can therefore have significant effects on the form of that grammar.

The loss of doubly filled COMPs in the 15th century meant that the positive evidence for relativisation by movement dwindled around 1450. If a mid-15th century learner disregarded the very occasional occurrence of doubly filled COMPs as, say, performance errors, but was exposed to more substantial evidence for the adjunction strategy (for example, from the [P *wh*]. . . [P \emptyset] construction), it may even have been more conservative for the learner to postulate the latter, and only the latter, in his grammar of English. Likewise, when the frequency of RLIs declined, if a learner were to disregard any very occasional examples, the most conservative grammar he could postulate would be one in which relative clauses were formed solely by movement.

Along the way, this article has touched on a number of topics of current interest, including island pied-piping; the distribution of null subjects outside of canonical *pro*-drop languages; resumption; the distribution of adjoined positions; and syntactic discrepancies between movement and binding. This, I think, is one way in which

RLIs promise rich pickings in the future: they have the potential to bring new evidence to bear on a range of important questions. There are a few loose ends in this work, which suggest that the study of the history of the English relative system still has much more to offer. Two questions come immediately to mind. One is quite parochial: the strategy in this paper has been to relate changes in the grammar of English relative clauses to antecedent changes in the frequency of certain types of relative. Although I believe this strategy is sound, and leads to a coherent diachronic story, nothing here has touched on the issue of why those changes in frequency took place. A fuller account of the diachrony of RLIs would therefore want to know why the frequency of doubly filled COMPs declined when it did, and likewise for the constructions underlying RLIs. However, that is too much for this paper.

The second question comes from a more universalist perspective. Just how common are RLIs, and can they be related, along the lines of Principles and Parameters analyses, to any other phenomena? Nothing in the above story is so unusual that we would expect just the handful of languages in the introduction to have RLIs. Future work should therefore address the obvious questions relating to the crosslinguistic distribution of RLIs. In particular, how similar are the constructions in the languages mentioned here, which other languages have RLI-like constructions, and can anything like the analysis proposed here be extended to the other languages in question? Hopefully this paper has given us enough of an idea of what an RLI looks like, how it works, and where it came from in English, to allow us to recognise them in other languages, if and when we come across them.

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