

Changing the Rules: "Extra" Prepositions in Relative Clauses

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0. Introduction

As a linguist in an English department, I am regularly treated to large samples of the changing American language in the form of freshman English papers. Two perhaps related constructions have begun appearing quite frequently both in my students' papers and in the media over the last several years. The first of these is a relative clause containing two prepositions, one at the beginning and an identical one at the end; an example of this type, which I refer to as the **Repeating Preposition Construction**, is given in (1). The other is a relative clause containing an initial preposition not subcategorized by the verb of the clause, as in (2); I will refer to this as the **Inwhich Construction**. The preposition in this second type is usually in, as in (2a), but occasionally something else, for instance for in (2b).¹

1. "Repeating Preposition":

There may be other groups of which I have no knowledge of.

2. "Inwhich":

- a. The suitcase inwhich Biff carries into Willy's hotel room is not a symbol. On the other hand the sample cases inwhich Willy carries in the opening scene are important and complex symbols.
- b. After these failures the feeling for which he is left with is one of coldness and bitterness.

The relative clauses in (1) and (2) are similar in that each contains what from the point of view of standard English is an "extra" preposition. One might assume that such sentences are simply performance errors; however, I believe that at least for some 18 to 21 year old Ohioans, they are not mistakes, but evidence of syntactic change in progress. For these speakers, "extra preposition" relatives are fully grammatical at a particular stylistic level.

In this paper I first present a more detailed overview of each of the two "extra preposition" constructions in turn, including some evidence of their grammatical status, then consider the structure and source of both constructions, as well as some other related data, as an example of syntactic change through reinterpretation.

1. Repeating Preposition Relatives

Some further examples of the construction which we have already seen in (1) are given in (3); these are all from college essays.

- 3.a. Linguists can reconstruct a proto or parent language from which these sister languages were created from.
- b. Vietnam was a situation in which the US got itself involved in, trying to prevent the spread of communism.
- c. It might be interesting to get some comments from those who know more about from where this genre of song comes from.

- d. But does she have friends with whom she just has fun and doesn't plan to have any physical relationship with?
- e. A big difference between the two is the extent to which the hard cover goes to in its charts, lists, explanations, etc.

Until recently, I had assumed that this type of sentence was simply a careless mistake, brought about perhaps at least partly by the slowness and artificiality of the writing process itself. The student who wrote (3a), for example, might have started out to write ...language from which these sister languages were created, but by the time she reached the end of the sentence (having been interrupted by a phone call in the middle) lost track of the construction and finished the sentence off as if it had been ...language which these sister languages were created from. Or, on the other hand, she might first have written the sentence as ...that these sister languages were created from, later decided to make it sound more formal by changing to from which rather than that ... from, but forgotten to delete the final from after inserting from which. (Forgetting to delete things is a problem especially for those students who write using a word processor.) This kind of absentminded-slip-of-the-pen (or keyboard) explanation may in fact account for a certain percentage of the repeating preposition relative clauses; however, several types of evidence indicate that at least for some college students, this construction is not a careless error. For these young people, double preposition relatives appear to be produced on purpose, felt to be fully grammatical/correct, although perhaps stylistically marked, and form a part of their linguistic competence, not just performance.

The strongest evidence for the grammatical status of these new relative clauses is the fact that some students actually "correct" standard relative clauses in the direction of the double-preposition type when rewriting papers. For instance, one paper as originally handed in contained the sentence She will not leave the society she grew up in, with a perfectly standard contact relative clause, but in the rewritten version it was changed to She will not leave the society in which she grew up in. When I asked the author, a young woman who generally writes very well, why she had changed the sentence, she said she thought the second version sounded "more sophisticated". Asked to judge other possibilities for rewriting the sentence, she accepted ...that she grew up in and ...which she grew up in, but rejected ...in which she grew up as "funny sounding". At least for this student, it seems that the rules for forming relative clauses have changed: a prepositional relative clause must always end in a preposition, regardless of what it begins with.

And this student is not alone. In fact, not only college students but many highly educated adults use the repeating preposition construction at least occasionally, particularly in relatively formal speech situations, such as interviews and lectures; situations where it is presumably a hypercorrection. A few examples, mostly from radio interviews, are given in (4):

- 4.a. We did underestimate the margin by which Ronald Reagan won by (Pollster)
- b. ... an independent commission, to which you alluded to earlier ... (U.S. Senator)
- c. ...a situation in which most of us would not want to get into. (Nutritionist)
- d. This is the state to which (q.j) would go to. (Mathematician)

- e. A phenomenon to which I refer to as a split subject ... (English professor)

Finally, further evidence that sentences like (1) are not (or at least not always) just careless errors, but rather are due to a reanalysis of preposition-initial relative clauses, comes from their relation to other constructions with prepositions in relative clauses, including the inwhich type, to which I now turn.

2. Inwhich Relatives

As we have seen in (2), some student writers use an initial preposition that is unrelated to the rest of the clause and seems to function simply as a marker of formal style. Compared to the double preposition construction in (1), this marker-preposition construction is not particularly widespread in my classes, nor in the media, and how it manifests itself varies from one individual to another. However, a few students do fairly regularly use inwhich (written as either one or two words) in relative clauses which syntactically have no reason to have a preposition at all, apparently taking inwhich as a (perhaps more "formal") variant of which or that; similar usage has been noted for college students and others in Louisiana and Florida by Smith (1981) and Free (1982). Some further examples of this construction are given in (5).

- 5.a. They are having problems, inwhich he is comparing to "The sea of Faith".
- b. By using words in which put down the product, Breathed cleverly satires these loud, pushy commercials.
- c. Mankind and all his dreams are "you" - that is in desparatic need to have someone above us inwhich we may give our eternal souls.
- d. Chances are if the word is one inwhich a wide variety of people are unfamiliar with, a paragraph called "WORD HISTORY" will be at the end of the definition in bold letters.
- e. My intent with the personalized form letter was to provide a few quick, general facts concerning the specific fund in which the client has inquired about.

Some evidence for the grammaticality of the inwhich relatives comes from the fact that those students who do use them use them quite consistently when writing in a relatively formal style: I generally have more than one example from a given writer. In addition, the rather common one-word spelling of inwhich indicates that in in this construction is not perceived as a preposition, but simply as a part of the relativization marker. As Smith notes, there is a "strong sense of oneness" to the construction: inwhich is a unitary relative pronoun, just like which or that. As with the repeating preposition type, the most convincing evidence for the grammatical status of these new relative clauses is the fact that their writers do not recognize these sentences as aberrant. For instance, when I asked the student who wrote (4e) whether he saw anything odd about the sentence, he spent several minutes puzzling over it, and finally guessed there must be something wrong with the phrase quick, general facts. When I explained that his usage of inwhich was nonstandard, his reaction was "You're kidding; I always do it that way".²

As mentioned earlier (see (2b)), some writers use a preposition other than *in* in a construction otherwise identical to the *in*-wh_ich relative. More examples of such relative clauses from freshman essays are given in (6):

- 6.a. The survey consists of six questions with which I will base my research on.
 b. Roberts said Miami is very tastefully designed ... as compared to schools in Britain of which he described as "a bit of a hodgepodge".

These sentences share the major characteristics of the *in*-wh_ich relative; in particular, they are perfectly standard relative clauses except for the presence of an initial preposition that is not subcategorized or otherwise related to the rest of the clause. I will return later to the question of how to analyze them, but for the present I assume that they are just idiolectal variants of the *in*-wh_ich construction, with *with* which, *of* which, and so on in place of *in*-wh_ich.

3. Structure and Function of the Two Constructions

If we leave aside for the moment the question of how to treat cases like those in (6), the synchronic analysis of the *in*-wh_ich construction is rather straightforward. As I've already indicated, *in*-wh_ich is simply a single word, a relative pronoun. The structure, then, is as in (7):

7. [s[Comp *in*wh_ich]]s ... [NP e]]]
 [s[Comp *in*wh_ich]]s the client has inquired about [e]]]

The structure of the repeating preposition type is quite different, appearing to consist of a fronted prepositional phrase and a "resumptive" preposition, as in (8):

8. [s[Comp PP]]s ... [pp P e]]]
 [s[Comp of which]]s I have no knowledge [pp of e]]]

The structure in (7) is derived by ordinary, garden variety WH movement, placing the WH pronoun *in*-wh_ich in Comp. The structure in (8) is more problematic, requiring two copies of the preposition to be generated at some stage. This could be achieved in a variety of ways, depending on one's assumptions about WH movement and syntax in general. One possibility would be to include a copying process as a marked, optional part of a language specific WH movement rule; another might be to freely generate Comp-initial prepositions and later check that each of these has a matching clause-final preposition.³ In any case, the Repeating Preposition construction will require some small complication in the syntactic rules of English, while the *in*-wh_ich construction requires no special syntactic machinery.

The functions of the "extra preposition" relativization strategies are a little harder to pin down. Both Smith (1981) and Free (1982) suggest that *in*-wh_ich may be a case form: Smith proposes that it is an objective case marker, since in her data it occurs almost exclusively as either direct object or object of a preposition. Free further points out that *in*-wh_ich can be synonymous to *when* or *where*, in sentences like (9); that is, it can be an "adverbial" subordinator:

9. No longer are the days of the "Walton's" in which women were strictly bound to the home and family. (example from Free 1982)

It is not at all clear to me that this is the same construction as that in (1) and (5): here *in* may very well be a "real" preposition. (One can do something in a place or in a time; in the days of the Walton's is a perfectly normal prepositional phrase.) Nonetheless, this type of sentence may well facilitate the emergence of *in*-wh_ich as a relative marker. If in which can replace some single WH words, like *when* and *where*, then why not other WH words as well, such as *which*, *what*, or *who(m)*?

By far the most common functions of *in*-wh_ich in the examples I have collected are direct object (e.g. (2a), (5a)), and object of preposition (e.g. (5d), (5e)). But there is one example, (5b), where in which clearly and unambiguously relativizes the subject of the clause, and one, (5c), in which it relativizes an indirect object.⁴ Furthermore, it would be quite odd for this particular group of speakers to develop an overt case marker. Most of my students use *whom* inconsistently if at all, and freely substitute *I* for *me* (and vice versa) in conjoined structures: morphological case is not a highly salient aspect of their linguistic systems. Thus, although relative *in*-wh_ich does occur most commonly in objective case contexts, it does not seem correct to label it a case marker. Rather, the conditions on its usage seem to be stylistic: it is used in relatively formal situations of the type where hypercorrection is not unexpected.

The repeating preposition construction also appears in relatively formal stylistic contexts; I have the impression that *in*-wh_ich is more common in writing,⁵ while repeating prepositions occur both in writing and in speech, but the styles are similar.

4. Problems with Prepositions: A More General Phenomenon

The two constructions discussed in this paper are only one manifestation of a general confusion associated with WH constructions containing prepositions. In fact, the data I have presented so far have been idealized to a certain extent. There are many cases of apparent "extra" or "misused" prepositions that do not exactly fit into either of the constructions I have outlined. For instance, there are sentences which look very much like the repeating preposition type, except that the prepositions are not exactly identical. Examples (4c) (*in* which most of us would not want to get into) and perhaps also (6a) (*with* which I will base my research on) are of this type; in (4c) the two prepositions are almost, but not quite, identical, while in (6a) they are completely unrelated. Somewhat similarly, there are cases of repeating prepositions where deleting the preposition at the end does not give a standard relative clause: in (10), for example, the fact that only one of the two prepositions is copied and fronted makes deletion of the non-fronted copy ungrammatical:

10. At least three hundred years ago a mug was a cup of which to drink out of.
 (* ... a cup of which to drink out)

In addition, there are sentences which look very much like the *in*-wh_ich construction, but which might simply involve dialectal or idiolectal differences in subcategorization of prepositions. In these cases *in* (or occasionally some other preposition) appears in place of the normally subcategorized one:

From all of this diverse data, it appears that the standard rules for relativization and questioning of prepositional phrases are undergoing a period of change and uncertainty. Some speakers apparently are not learning the "piped piping" version of WH movement, or are learning it only late and imperfectly. Such speakers hypercorrect in a variety of ways in their attempts to approximate the standard preposition-initial construction: innovations in these speakers' grammars can include new lexical items of the form preposition + which added to the inventory of relative pronouns,⁷ or modifications in the WH movement rule, or reinterpretation of certain prepositions as style markers, or a combination of these.

5. Toward an Explanation

These innovations are probably motivated by the comparative rarity of the piped piping construction in colloquial speech (and in general in the type of language likely to be heard by children), combined with certain previously existing peculiarities of WH constructions involving prepositional phrases. All of the changes leading to the "extra preposition" constructions seem to me to be attributable to the overgeneralization of two regularities, which I state very informally in (13):

- 13. A. To relativize or question a PP, you must have a final preposition.
- B. In formal style, WH constructions may begin with a preposition.

Both of these have their roots in facts or at least tendencies of standard English. Certainly (B) is true in standard English: relative clauses for example can start with a preposition, and they do so mostly in a rather formal style. The validity of (A) in standard English is not so obvious; in fact it is clearly not true in many cases, since it is violated precisely where (B) is in effect, in phrases like the professor from whom we bought this house.⁸ Nonetheless, there are a number of situations in standard English in which a clause-final preposition is obligatory. One of these of course is a relative clause with that rather than a WH word in Comp:

- 14. ... the professor that we bought this house from
- *... the professor from that we bought this house

Another such situation occurs in both questions and relative clauses with where and a preposition ((15a) is perhaps somewhat colloquial, but fully acceptable to many speakers; (15b) is completely standard):

- 15. a. Where does she live at?
- *At where does she live?
- b. ... in Laurel, where Sharon is from ...
- *... in Laurel, from where Sharon is ...

Finally, note that in some embedded WH questions preposition fronting is impossible or at least awkward even with WH words other than where. The worst sounding cases are those where the clause is the object of a preposition, as in (16a).⁸

- 16. a. We were talking about what house he lived in.
- *We were talking about in what house he lived.

- 11. a. We could continue to function as we do today, but this is not the basis in which the company was founded.
- b. The original communication I choose is a policy for a student organization in which I belong.
- c. Jellyfish serve a purpose, in which they eat small animals and marine algae.
- d. The best feature would be the ease of which our registers can be converted to meet any business need.

Sentence (11a) would be fully grammatical in my dialect if in which were replaced with on which; (11b) would be good with to which; and (11c) with in that. Perhaps such cases are evidence that in which is coming to be felt as the neutral combination of preposition plus WH word capable of substituting for other combinations. Sentence (11d), although it does not contain in which, does seem related to the other sentences in (11) in that it uses an unexpected preposition: of instead of with. All of these examples are a further indication of the weakening of the perceived link between an initial preposition in a relative clause and a preposition subcategorized by that clause, a weakening which is also evident in the Inwhich construction. Speakers who use such constructions no longer perceive the preposition at the beginning of the clause as being in any sense the same as a "real" preposition subcategorized by a verb.

It is significant that in all of these constructions, including those in (10) and (11) as well as the construction with an unsubcategory preposition in (6) and the repeating preposition construction in (3) and (4), by far the most common WH word is which.⁶ In other words, in all of the non-standard, hypercorrected relatives the usual form is preposition + which at the beginning of the clause. All of these constructions seem to be based on a kind of general morpho-lexical schema: preposition + which = formal relativization marker. Some speakers apply this in a very broad way: just plug in any preposition and you've got high style. Others use it in a more restricted manner, limiting the preposition either to in or to a copy of a clause-final preposition.

Looked at from this perspective, it becomes clearer that the "other preposition" construction in (6) is in fact the same structure as the Inwhich construction, but with a different choice of formality marker: with or of rather than in.

Finally, it is worth noting that the odd behavior of prepositions in WH constructions is not limited to relative clauses; I have come across a few examples of the same sort of thing in embedded questions, although this seems to be less common than in relative clauses, and, interestingly, does not tend to involve the word which. The examples in (12) are the only ones of this type that I have collected; (12a-b) are parallel to the Repeating Preposition relatives, while (12c) has a nonsubcategory preposition like those in the relative clauses in (6).

- 12. a. It is not clear to what or whom, he lost this love to.
- b. ... to find out from what base our own structure of thinking comes from.
- c. The parent wonders where his child is and to whom has the pleasure of the child's company.

- b. I wonder who he got the money from.
 ??I wonder from whom he got the money.

Given cases like this, in which a final preposition is obligatory, and given the fact that preposition stranding is always possible in English, it is only a very small leap for a language learner to posit that final prepositions are always obligatory when a PP is relativized or questioned. Both of the principles given in (13) thus do exist to some extent in standard English. The change, for those idiolects that allow the Repeating Preposition and *Inwhich* (and related constructions, comes in taking (A) as absolute and (B) as unrelated to subcategorization, so that the clause-initial preposition that appears in some WH constructions is not perceived as having the same origin or function as the clause-final preposition that appears in other WH clauses.

6. Summary and Conclusions

The two types of relative clauses introduced in the first part of this paper are a case of syntactic change in progress; an example of the process of reinterpretation of a construction leading to a new construction. Apparently the traditional [preposition+WH word ... gap] structure for relative clauses and perhaps also questions has ceased to be a functioning part of some speakers' grammars. Once this construction is lost, all prepositional WH constructions have a final preposition. The preposition-initial construction (which these speakers are of course exposed to, especially in reading) is then often reinterpreted in one of two ways. The strategy leading to the Repeating Preposition construction analyzes it as containing a duplicate copy of the obligatory final preposition, an analysis encouraged by the existence of several other constructions in which a preposition must appear in clause-final position, while the strategy leading to the *Inwhich* construction takes *preposition+which* as a unitary relativizer: along with \emptyset , *that*, *which*, and other relative pronouns, a relative clause can be introduced by e.g. *inwhich* without any difference in meaning. In both cases the speaker has not acquired the formal standard English rule of "pied piping" a preposition along with a fronted WH word, but has approximated the resulting preposition initial surface construction by other means. For Repeating Preposition speakers these means are syntactic, involving addition of an optional copying process to the relativization rule(s) to place a duplicate copy of the final preposition at the beginning of the relative clause, or perhaps generation of "resumptive" prepositions and some mechanism to check that each initial preposition has a matching final one. For *Inwhich* speakers the means are lexical: the set of relative pronouns is enlarged to include in which (or occasionally *for which*, etc.). For both types of speakers the initial preposition functions not as a true syntactic/semantic preposition, but only as a marker of formal style.

Notes

¹Relative clauses with *in which* as in (2a) have been noted by Smith (1981) and Free (1982); the other two types to my knowledge have not been discussed in the literature, although Free does mention the repeating preposition type in passing.

²And it's true: he often does do it this way.

³This second option would obviously require some refinements and further

specifications, including at least a restriction that Comp would have to contain a WH word.

- ⁴Note that the "other preposition" type in (6) also relativizes a variety of grammatical relations: (6a) is object of a preposition and (6b) is a subject. ⁵I have recorded only one example of *inwhich* from a radio interview; this is sentence (11c). All of my other examples are from college essays. ⁶The only exceptions to this generalization that I have run across are (3c,d) in the text. ⁷And perhaps also some interrogative pronouns, if for instance *to whom* in (12c) is a unitary pronoun. ⁸The peculiarity of fronting the preposition in this type of question was first pointed out to me by Wayles Browne.

References

- Mary Free. 1982. "In Which: More Common than Curious" *American Speech* 57.4:309-310.
 Jo R. Smith. 1981. "In Which: A New Case Form?" *American Speech* 56.4:310-311.