ONE OF THOSE SITUATIONS WHERE A RELATIVE PRONOUN BECOMES A COMPLEMENTIZER: A CASE OF GRAMMATICALIZATION IN ACTION...AGAIN

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1. Introduction
There exists a type of colloquial relative clause in present-day English which is introduced by where but need not be locative in nature.¹

(1) It’s like that thing where someone asks you what year it is and you say oh, it’s 1998, waaaaait, no it is not.

(2) Either way you’re going to end up with something where you don’t want it.

(3) I found a lot of couches where they wouldn’t fit through that door.

(4) There were some people at my high school where they just couldn’t write legibly.

(5) I know that an ideal password is one where it looks like my cat took a 12-hour nap on the keyboard.

This pattern is somewhat understudied; Comrie (1999: 88) and Pullum (2008) each describe it with reference to only a single example. However, their analyses converge on the notion that the relative clauses introduced by this where do not contain syntactic gaps. Comrie argues that this where “cannot be analyzed as a relative pronoun, since it plays no syntactic or semantic role – subject, object, adjunct, possessor of any of these, and the like – within the relative clause”. In fact, in licensing gapless relative clauses, where as used in examples such as (1) to (5) exhibits behaviour unlike either the relative pronouns (i.e. wh-words) or the relative complementizers (that/O) of Standard English. The present study will conclude that this where (henceforth where-comp) is a grammaticalized offshoot of the original (locative) relative adverb where

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¹Most of the data in this study was collected spontaneously from conversations and the Internet between 2008 and 2011 inclusive.
(henceforth \textit{where}_{\text{LOC}}), and that \textit{where}_{\text{COMP}} does indeed take gapless relative clauses – necessarily.

The most striking evidence for this is that when \textit{where}_{\text{COMP}} relativizes a head noun, any coindexed nominal within the relative clause emerges as a resumptive pronoun. The example of such a resumptive pronoun in (2) is an object; those in (3) and (4) are subjects. In both cases, they occupy syntactic positions in which a gap would be expected with any of the common relativizers found in standard present-day English (PDE). Relative pronouns undergo movement (e.g. (6)); and even the relative complementizers license movement of an unpronounced relative pronoun (7):

(6) He got this awful haircut which \textit{i} [t_i] is like a bag.

(7) He got this awful haircut \textbf{Ø} that \textit{i} [t_i] is like a bag.

But \textit{where}_{\text{COMP}} relies on neither of these strategies:

(8) He got this awful haircut where it’s like a bag.

As a matter of fact, \textit{where}_{\text{COMP}} appears not to trigger movement at all. Resumptive pronouns are incompatible with everyday English relativizers since, with the gaps already present, the pronouns would have no place (and might violate the Subject Constraint):

(9) * There were some people at my high school who \textit{they} \textit{i} [t_i] just couldn’t write legibly.

(10) * You’re going to end up with something which \textit{you} \textit{i} [t_i] don’t want it\textit{i} [t_i].

Resumptive pronouns are largely absent from PDE; their distribution is otherwise limited to syntactic islands out of which extraction is not permitted. However, leaving out the resumptive pronouns that accompany \textit{where}_{\text{COMP}} is not acceptable:

(11) * There were some people at my high school where couldn’t write legibly.

(12) * You’re going to end up with something where you don’t want.

The relativized arguments do not have any place to move to; and if they do not stay \textit{in situ}, ungrammaticality will result. \textit{Where}_{\text{COMP}} may have introduced to (colloquial) PDE a systematic environment for resumptive pronouns.
2. Development and grammaticalization
The original relative adverb $\textit{where}_{\text{LOC}}$ was restricted to the spatial (just as $\textit{when}$ is a relative adverb that applies mainly to the temporal). According to the OED, it was only in the 18th and 19th centuries that abstract uses of $\textit{where}_{\text{LOC}}$ arose: $\textit{field where}$ (referring to a discipline of study) is attested from 1781, and $\textit{spot where}$ (a metaphorical division) from 1887. The phrase $\textit{to the point where}$ is first found in a 1938 letter written by F. Scott Fitzgerald; from this point onwards, there must have been an increasingly wide semantic range of head nouns capable of being relativized by $\textit{where}$: case where, situation where, time where, example where, and so on. By now, head nouns of $\textit{where}_{\text{COMP}}$ are often decidedly non-locative. If anything, they usually have to do with categories and types:

(13) These are errors where a spell-checking program has guessed wrong about how to revise a typed word.

(14) That’s the kind of thing where it’s absolutely acceptable.

(15) It’s one of those kinds of situations where you can’t really explain it to anybody because you’ll know it when you hear it.

(16) It’s one of those scenes where you have to be there to see it.

How might this have come about? It is possible that the step from metaphorically locative head nouns (case, situation, time, and so on, alongside which $\textit{where}_{\text{LOC}}$ can still be paraphrased as in which) to the thoroughly non-spatial ones (the kind of thing) has been bridged by intermediary examples such as (15) and (16). In these, the head noun is still at least metaphorically spatial at its core (situation, scene), but is referring to a larger set of entities. These might have been conducive to reanalysis.3

For instance, in the following hypothetical progression, the $\textit{where}_{\text{LOC}}$ relativizing the head noun the kind of song becomes reanalyzed as referring primarily to the category rather than anything else:

(17) a. It’s a song $\textit{where}_{\text{LOC}}$ the guitar solo abruptly cuts out.

b. This is the kind of song $\textit{where}_{\text{LOC}}$ the lyrics may be stronger than the melody, but let me know what you think.

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2 Influence might have come from related patterns involving $\textit{where}$: the definitional $\textit{where}$ ($X$ is $\textit{where}$...), the use of $\textit{where}$ in mathematics and logic (Find $Y$, where $Y$ equals...), and the gradual loss of $\textit{wherein}$, whereby, and the like.

3 Categories might be a fairly logical, if extreme, abstraction of the spatial properties of $\textit{where}_{\text{LOC}}$. Consider the existence of visual depictions of type (e.g. Venn diagrams).

4 This is defined by Hopper and Traugott (2003: 39) as “changes in interpretation of a string of forms, but no changes to the forms themselves”.

c. This is the kind of song where\textsubscript{COMP} the lyrics may be stronger than the melody, but let me know what you think.

d. That’s the kind of thing where\textsubscript{COMP} it’s absolutely acceptable.

In leaving behind the locative denotations of where\textsubscript{LOC}, where\textsubscript{COMP} has undergone the semantic bleaching typical of grammaticalization (see e.g. Hopper and Traugott 2003). The role of the metaphorically spatial in the development of where\textsubscript{COMP} is also consistent with a process of grammaticalization – particularly with a proposal cited by Hopper and Traugott (2003: 85):

[A]rguments have been put forward that early grammaticalization is also strongly motivated by metaphoric processes. Typical of early claims along these lines is: ‘Rather than subscribe to the idea that grammatical evolution is driven by communicative necessity, we suggest that human language users have a natural propensity for making metaphorical extensions that lead to the increased use of certain items’ (Bybee and Pagliuca 1985:75).\textsuperscript{3}

In a sense, the relative clauses introduced by where\textsubscript{COMP} act just the way any other sort of restrictive relative clause (across languages) does: they narrow down the range of referents potentially associated with the head nominal. The difference is that the referent of where\textsubscript{COMP} relative clauses is always a subgroup of the head noun rather than a specific example thereof. The head noun itself is either an explicit larger category or an inherently unspecified nominal (e.g. indefinite pronouns, e.g. thing).

There are ostensible counterexamples – for instance, the aforementioned:

(8) He got this awful haircut where it’s like a bag.

Surely this awful haircut is referring to a single, particular haircut that the matrix subject was given. Or is it?

(18) ? He got this awful haircut where it was given to him last Saturday by that odd woman upstairs.

Here the specificity appears to present a problem for where\textsubscript{COMP}. What could be causing the discrepancy between (8) and the questionable (18)?

What differentiates these two sentences is whether the relative clause is referring to an inherent characteristic (or behaviour) of things like [head nominal]. Consider that the difference is retained in the following pair of sentences:

\textsuperscript{3} Curiously enough, Hopper and Traugott continue by mentioning (2003: 85) that what they consider to be ‘the most appealing examples of metaphoric processes in grammaticalization are [the ones] provided by the development of spatiotemporal terms’.
(19) He got a haircut of the sort that can be described as being like a bag.

(20) # He got a haircut of the sort that can be described as having been given to him last Saturday by that odd woman upstairs.

In (8) there is a set of haircuts that are comparable to bags, and the whereCOMP is modifying this group. In (18), however, there is no obvious category of haircuts – the person being described received one haircut at one time – and the whereCOMP is questionable.

3. Functions

WhereCOMP is capable of relativizing both subjects and objects. In addition, there is a third option: it can take a relative clause not containing a coreferential nominal at all:

(21) This is the kind of rain where if you’re staying in a cabin you decide to leave early.

In any case, the relative clauses are gapless; this makes whereCOMP the only relativizer in PDE that even allows for such things.6 Note the ungrammaticality (or at least dubiousness) that results from a gap being left hanging:

(22) ? This is the kind of rain that if you’re staying in a cabin you decide to leave early.

When it comes to spontaneous speech, this is an advantage in that there are no syntactic loose ends; any ordinary PDE relative pronoun or relative complementizer would likely lead to gaps needing to be kept track of, but a whereCOMP can be followed by any complete, self-contained clause – however internally complex – that is to be applied to the head nominal:7

(23) I’m very much always the type of person where if something feels right, then I go with it.

(24) She’s the type of girl where the bigger the challenge, the more accomplished she’ll get.

(21) This is the kind of rain where if you’re staying in a cabin you decide to leave early.

6 Comrie (1999) and Pullum (2008) both point out that such that functions similarly, but that it is offbeat and not especially colloquial.

7 Pullum (2008) independently makes this same point.
The traditional relativizers of English would struggle to accommodate relative clauses of this sort; arguably the sole alternative to these particular instances of whereCOMP is for whom, which (with the preposition pied-piped into place ahead of time and pronoun inflected in a highly formal manner with the accusative case already established) is hardly a natural choice in colloquial speech.8

Evidence that speakers are capitalising on the versatility of whereCOMP can be seen in variation between extremely common relative pronouns and combinations of [whereCOMP] + [resumptive pronoun]:

(2) You’re going to end up with something where you don’t want it.

(3) I found a lot of couches where they wouldn’t fit through that door.

(4) There were some people at my high school where they just couldn’t write legibly.

(8) He got this awful haircut where it’s like a bag.

(25) She is the type of girl where she wants me to make the moves.

(26) There are organs in France where they are tuned as high as 56 Hz.

4. Parallel earlier changes
According to Hopper and Traugott (2003: 202), relative pronouns grammaticalizing to relative complementizers are to be expected:

[Complementizers] are more grammatical than the pronouns from which they derive not only in their reduced form (they cannot carry inflections), but also in their more highly restricted privileges of occurrence. For example, in English neither the earlier be nor the current that permits a preposition to precede, although the relative pronoun may.

It is no surprise, then, that among such shifts are several earlier examples from other languages (Harbert 2007). In Afrikaans, wat – originally a relative pronoun meaning ‘what’ – has become a relative complementizer roughly comparable to the English that. The Bavarian wo (originally meaning ‘where’) has also become a relative complementizer (Bayer 1984). Unlike the English whereCOMP, it licenses wh-movement over it (as do that and Ø) since Bavarian requires both a relative pronoun and a complementizer in its relative clauses. The possibility of resumptive pronouns is therefore out of the question. Much closer to the case of whereCOMP, however, is the Yiddish vos (Lowenstamm

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8 Comrie (1999: 89) argues that whose is also cumbersome in speech, and speculates that it is this that is at least partially responsible for the appearances of the nonstandard forms of relative clauses that he has encountered.
1977); it also means ‘where’, and can serve as either a relative adverb or a relative complementizer depending on the semantic context. As a complementizer, it prompts the appearance of resumptive pronouns. Similar shifts have also been identified outside the Germanic languages.9

5. Conclusion
Colloquial present-day English now contains two senses of where: the relative adverb, locative as always; and the nascent relative complementizer, which prefers types and categories as head nouns. The behaviour of the latter has not only diverged appreciably from that of the former, but has come to be unlike that of any other relativizer in PDE.

As it stands, there is relatively little documentation of the more or less analogous shifts in Afrikaans, Bavarian, and Yiddish. Although there remains much to be done when it comes to tracing the evolution of the English whereCOMP to date,10 its existence might well help provide insight into the intermediate stages that might occur during a case of grammaticalization from relative pronoun to relative complementizer.

References

9 The Bulgarian general-purpose relativizer détò has developed from a locative relative adverb kádetò, also meaning ‘where’; the Greek pù (‘where’ and/or ‘that’) appears to have done the same. (Thanks to Elena Dimova for bringing this to my attention.)
10 For instance, a corpus study would be revealing.