

Relative clause attachment biases are affected by the form of the relativiser: Evidence from French

Claire Delle Luche, Roger van Gompel, Frédérique Gayraud and Christophe Coupé (Laboratoire Dynamique du Langage, Université de Lyon, CNRS, University of Dundee)

Accessibility and givenness hierarchies^{1,3,4} claim that referential expressions are ranked in a hierarchy and that their form signals the accessibility of the referred entity in the discourse. The less informative and more attenuated a referring expression is, the higher it is on this hierarchy. Pronouns are high on the hierarchy because they are short and semantically uninformative, whereas complex NPs are lower, being more informative and less attenuated.

We tested whether accessibility/givenness hierarchies can be extended to relativisers. Since relativisers are referential expressions, their form may signal the degree of accessibility of the NP to which the RC is attached. Consider the French sentences in (1). French has two forms of relativisers, *qui* and *lequel*, for subject-RCs. *Lequel* is more informative (marked for gender and number) and less attenuated than *qui* (two vs. one syllable) and should therefore signal a less accessible antecedent. Assuming that NP1 is more accessible than NP2 (because NP1 is the head and part of the main assertion of the sentence²), *qui*-RCs should be attached to NP1 more often than *lequel*-RCs. In contrast, *à qui* and *auquel*, used for dative-RCs, should have similar positions on the accessibility hierarchy: Their attenuation is comparable and they are similar in informativity: *Auquel* is marked for gender and number, but *à qui* is marked for animacy. Therefore, they should have similar attachment preferences.

A study on sentences containing subject- or dative-RCs preceded by “NP1 of NP2” in which linear-mixed-effect models were computed. For subject-RCs, there was an overall bias towards NP2 attachment. Most important, relativiser form contributed significantly to the model: There was a stronger NP2 attachment bias with *lequel* than *qui*, confirming the hypothesis that the relativiser form signals its antecedent’s accessibility. Furthermore, the relativiser effect interacted with NP1 animacy: for *lequel*-RCs, there was a strong NP2 bias regardless of NP1 animacy, but *qui*-RCs attached more often to animate than inanimate NP1, suggesting that *qui* has a stronger bias to attach to animate NPs than *lequel*, because animate NPs are more salient than inanimate NPs. The relativiser effect also interacted with NP1 syntactic function: With *qui*-RCs, the bias to attach to NP1 was stronger when it was the subject than a different role, but with *lequel*-RCs, this bias was weaker. This suggests that *qui*-RCs have a stronger bias to attach to the subject than *lequel*-RCs, because the subject is more accessible than other syntactic roles⁵. In contrast, dative-RCs did not show any effect of relativiser or interactions with relativiser form.

Questionnaires using sentences such as (1) and (2) showed similar results: Participants exhibited a weaker preference to attach to NP2 with *qui* than *lequel*, whereas attachment preferences with *à qui* and *auquel* did not differ. In sum, our results show that RC-attachment biases are affected by the relativiser form. This suggests that, like other referential expressions, relativiser form signals the accessibility of the antecedent, extending accessibility and givenness hierarchies.

(1a) *Je connais le père du maçon, qui est amusant. (I know the father of the mason who is funny)*

(1b) *Je connais le père du maçon, lequel est amusant. (identical meaning)*

(2a) *Je n’oublie pas le grand-père du marié, à qui le témoin apporte le dessert. (I don’t forget about the grand father of the groom to whom the bestman is bringing the dessert)*

(2b) *Je n’oublie pas le grand-père du marié, auquel le témoin apporte le dessert. (identical meaning)*

References

¹Ariel, M. (1990). *Assessing noun-phrase antecedents*. London: Croom Helm.

²Frazier, L. (1990). Exploring the architecture of the language-processing system. In G. T. M. Altmann (Ed.), *Cognitive models of speech processing*. Cambridge: MIT press.

³Givón, T. (1983). Topic continuity in discourse: An introduction. In T. Givón (Ed.), *Topic continuity in discourse: A quantitative cross-language study* (pp. 5-41). Amsterdam: John Benjamins.

⁴Gundel, J. K., Hedberg, N., & Zacharski, R. (1993). Cognitive status and the form of referring expressions in discourse. *Language*, 69, 274-307.

⁵Keenan, E. L., & Comrie, B. (1977). Noun phrase accessibility and universal grammar. *Linguistic Inquiry*, 8, 63-99.