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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Permalink

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 39(0)

Authors

Orenes, Isabel

Madruga, Juan Antonio Garcia

Gómez-Veiga, Isabel

et al.

Publication Date

2017

Peer reviewed

Tracking the temporal course of counterfactual understanding

Isabel Orenes

UNED

Juan Antonio Garcia Madruga

UNED, Spain

Isabel Gómez-Veiga

UNED, Spain

Orlando Espino

Universidad de La Laguna

Ruth Byrne

TRINITY COLLEGE DUBLIN, UNIVERSITY OF DUBLIN, IRELAND

Abstract: This paper explores the dual meaning of counterfactual conditionals, such as ‘if there had been gloves, then there would have been scarves’, by tracking the temporal course to envisage the possibility corresponding to the conjecture ‘there were gloves and there were scarves’ and the presupposed facts, ‘there were no gloves and there were no scarves’. To test this, we used the visual world paradigm, in which counterfactual and indicative conditionals were heard while four images corresponding to the conjecture, such as an image of gloves and scarves, and the presupposed facts, such as an image of no gloves and no scarves, and two distractors were shown on the screen and eye movements were monitored. We found that people looked at the affirmative image in the indicative conditional, and both types of images (affirmative and negative) in the counterfactual conditional. Results support the dual meaning of counterfactuals.