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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 37(0)

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Publication Date

2015

Peer reviewed

Gricean maxims influence inductive inference with negative observations

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Abstract: A robust finding in category-based induction tasks is for positive observations to raise the willingness to generalize to other categories while negative observations lower the willingness to generalize. This pattern is referred to as monotonic generalization. In earlier work, we have found evidence for non-monotonic generalization when negative observations are involved. For example, we presented participants with the information that Mozart's music has a certain property, asking to judge the likelihood of the conclusion that Metallica's music too has the property. We found people more willing to accept the conclusion if they were additionally informed that the sound of a falling rock does not have the property. Here, we test the hypothesis that non-monotonic generalization following negative observations crucially depends on the reasoner's assumptions regarding the way the arguments were constructed. We find that people may generalize non-monotonically when they assume the observations were intended to be helpful.