

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Cost of Information Acquisition and Evolving Strategies

Permalink

<https://escholarship.org/uc/item/6sn8s8t0>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 31(31)

ISSN

1069-7977

Authors

Gray, Wayne D.
Schoelles, Michael J.
Veksler, Bella Z.

Publication Date

2009

Peer reviewed

Cost of Information Acquisition and Evolving Strategies

Bella Z. Veksler

Rensselaer Polytechnic Institute

Wayne D. Gray

Rensselaer Polytechnic Institute

Michael J. Schoelles

Rensselaer Polytechnic Institute

Abstract: Currently, theories of judgment and decision-making lack predictive and explanatory power when it comes to the cost of information acquisition. We ran two studies intended to determine how factors that affect immediate interactive behavior influence decision-making. In particular, we varied the duration a participant had to wait before a value would appear. Our hypothesis was that when the cost of information acquisition is higher (longer wait time involved), a participant would be more likely to satisfice i.e. decide, that he/she has enough information and make a choice even when this means making a choice with incomplete information. As a result of satisficing, we should see a drop in performance. We also predicted that strategies should evolve as participants became more experienced with the task environment. Our data indicates that this is indeed the case, as the cost of information access increases, satisficing likelihood does as well, and accuracy decreases.