

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Towards an integration of verbal and formal theories of risky choices

Permalink

<https://escholarship.org/uc/item/3bf4w5pb>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 46(0)

Authors

Lob, Aaron Benjamin

Fischer, Olivia

Frey, Renato

Publication Date

2024

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Towards an integration of verbal and formal theories of risky choices

Aaron Lob

University of Zurich, Zurich, Switzerland

Olivia Fischer

University of Zurich, Zurich, Switzerland

Renato Frey

University of Zurich, Zurich, Switzerland

Abstract

Which are the psychological mechanisms shaping people's risky choices? While the behavioral sciences have produced many theories to address this question, attempts to integrate their different assumptions are sparse: Verbal theories may explain real life decisions with high face validity but lack precisely testable predictions. Conversely, formal theories allow for clear mathematical predictions but often focus on artificial lab tasks. We aim to bridge this gap and harness each approach's respective advantages. To this end, we created a taxonomy of the most important psychological mechanisms involved in risk taking spanning different aspects of cognition, including attentional, affective, motivational, and psycho-social mechanisms proposed in the literature. As such, this taxonomy is the basis for an integrative process model quantifying the psychological mechanisms involved in decisions under risk and uncertainty, and may help researchers to identify similarities and discrepancies between different theories of choice.