

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Interaction of generalised aversive beliefs and avoidance behaviour

Permalink

<https://escholarship.org/uc/item/3v0301vv>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 47(0)

Authors

Verra, Luinta

Wise, Toby

Zika, Ondrej

et al.

Publication Date

2025

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

Interaction of generalised aversive beliefs and avoidance behaviour

Luiana Verra

Max Planck Institute for Human Development, Berlin, Germany

Toby Wise

King's College London, London, United Kingdom

Ondrej Zika

Max Planck Institute for Human Development, Berlin, Germany

Nicolas Schuck

Universität Hamburg, Hamburg, Germany

Abstract

Beliefs about potential threats motivate avoidance behaviour. However, avoidance may also provide new learning experiences that can impact threat beliefs. Here, we use a novel task to explore this bidirectional relationship between aversive beliefs and avoidance. Specifically, we evaluate changes in outcome expectancies for locations on a grid-like sea-world before and after participants navigate a boat and avoid threatening locations. Using computational modelling we assess how participants generalise threat information to nearby locations and how these beliefs change as a result of avoidance. Initial piloting indicates that participants differ in the degree to which they generalise beliefs to nearby locations. Simulations further show how increased generalization influences avoidance and highlight the role of avoidance costs in shaping behavior. This work explores individual differences in belief-avoidance interplay and contributes to our understanding of how this interaction can lead to maladaptive patterns typical of anxiety.