

SUPPLEMENTARY: Risk-taking following large and small-scale disasters in a microworld

Supplementary Materials for: The day after the disaster: Risk-taking following large and small-scale disasters in a microworld

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Comparison of decisions under risk and uncertainty

As requested by a reviewer, we add an analysis of participant choices that compares decisions from description with decisions with description and experience combined. We define decisions from description as the choice participants make on the very first trial when they have read the descriptions of risks associated with each village but have yet to experience an outcome. All subsequent choices (2-400) are defined as experience-based choices. Note that both scattered-common and concentrated-rare villages were risky and so these choices are combined. One prediction from Prospect Theory (Kahneman & Tversky, 1979) is that participants will overweight the probability of rare events in the initial descriptive choice, leading to a preference for the safe option.

Counter to this prediction, the data shown in Figure S1 show that descriptive choices (red and orange points) generally fall above 0.5 on the Y-axis suggesting a slight preference for the risky option on the first trial. In description-based choices in the severe environment, the proportion of subjects choosing the risky option is exactly 50%.

Experienced-based choices, shown in the black points, tend to vary between the datasets suggesting experience in the remaining trials did not confer a consistent preference for risk seeking. It is worth noting that descriptions remained present throughout the experience and so, our datasets do not present a pure test of experienced-based decision making. As noted in the main manuscript, it is possible that these persistent descriptions may have reassured participants (to the extent that they believed the information) about the rarity of disasters and so further encouraged risk seeking.

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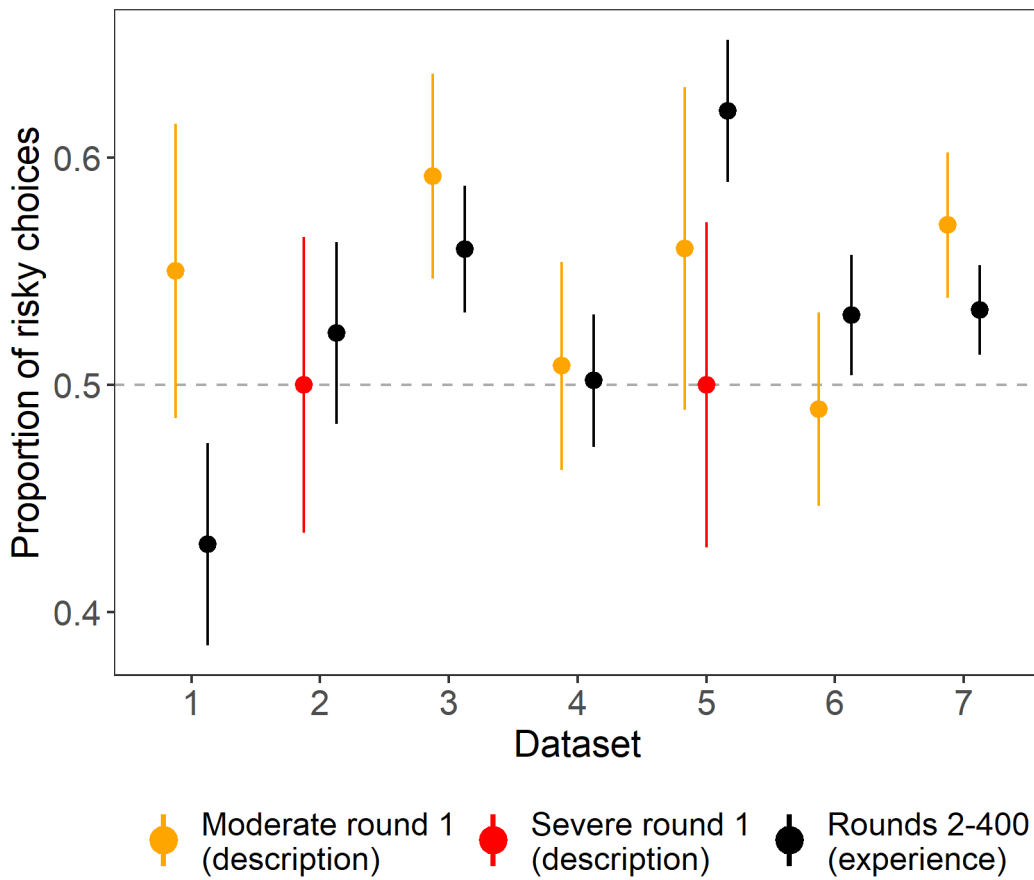


Figure S1. Proportion of risky choice as a function of dataset and the type of response based on description (shown in orange and red) and experience. Note that the two description datapoints emerge because in dataset 2 & 5, the first choice was made in the severe environment. Dotted horizontal intercept represents 50% proportion where values above show a preference for the risky option whereas values below show an aversion to risk.

Data Availability

All data and analysis scripts are available at the following link:

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https://osf.io/fvk4s/?view_only=e0a2ce70e0fc43d78ce98ae673bb090f

References

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