Supplemental Materials

**Pilot Study: Do Naturally Occurring Pathogen Threats Decrease Risk Tolerance?**

A correlational pilot study was conducted during the month of October 2014 – during the height of the Ebola scare in the United States. We conducted the study at a university located in the same metropolitan area as the Dallas, Texas hospital where two people contracted Ebola and a third man died from the disease (Burrough, 2015). To test whether people’s perceptions of the threat posed by pathogens would be related to their risk tolerance, we asked participants to complete a scale assessing their general preference for safe versus risky behaviors and had them indicate whether they were concerned about an Ebola outbreak. We predicted that participants who reported being concerned with contracting Ebola would tend to exhibit lower risk tolerance than participants who indicated that they were not concerned with the possibility of an Ebola outbreak.

**Method**

**Participants.** Participants were 76 undergraduates (*M*age = 19.95 years, *SD* = 3.63, 39 women) at a medium sized, liberal arts college in North Texas. All students received partial course credit in exchange for their participation.

**Procedure and materials.** Upon arrival to the experimental room, students were run in small group sessions where they were seated at privately partitioned computer terminals. All instructions and stimuli were presented via Qualtrics web-based experimental software. Participants were told they would complete a study designed to explore individual personality differences in decision-making. Participants first completed a risk tolerance questionnaire measure. The experiment ended with participants filling out a short battery of demographic questions, during which they indicated their current level of concern about Ebola.

***Risk tolerance.*** To measure risk tolerance, participants completed the Risk Subscale of the Disinhibition Inventory (Dindo, McDade-Montez, Sharma, Watson, & Clark, 2009). This scale consisted of eight statements that assessed a person’s self-reported general inclination towards taking risks (e.g. “I enjoy taking risks.”, “I seek thrilling experiences.”) All ratings were made on 5 point rating scale (endpoints: 1 = *strongly disagree*, 5 = *strongly agree*). No other risk tolerance measures were collected in Study 1.

***Perceived pathogen threat.*** During the time period that this study was administered, there was an outbreak of Ebola virus in the same metropolitan area as the university (Zavis, Dixon, Hennessy-Fiske, & Morin, 2014). The study took place between October 7, 2014 and October 28, 2014 when fear over the potential of an Ebola outbreak spreading across North Texas was at its height (Burrough, 2015). To measure participants’ perceptions of pathogen threats in their environment, we asked them at the end of the survey: “Are you worried about the spread of the Ebola virus in the U.S.?” Participants answered either yes or no to this question. People who were worried about the spread of Ebola were labeled as being high in perceived pathogen threat (*n* = 40), whereas people who were not concerned about the outbreak were labeled as being low in perceived pathogen threat (*n* = 36).

**Results**

First, we created a composite measure of risk tolerance by averaging participants’ scores on the risk subscale (α= .88). In the resulting composite measure, higher scores indicated a greater inclination to take risks (i.e. greater risk tolerance). Next, we used an independent samples *t*-test to analyze differences in risk tolerance between those with high versus low pathogen threat concerns. Results revealed a significant effect of pathogen threat concerns on participants’ risk tolerance, *t*(74) = -2.10, *p* = .04*, d* = .49. Concern about the threat of an Ebola outbreak was associated with a significantly lower desire to take risks (*M* = 2.93, *SD* = .81) compared to those who reported low levels of concern about an outbreak (*M* = 3.28, *SD* = .60).

**Discussion**

Results of the pilot study revealed evidence that real world events that increase the salience of pathogen threats may play an important role in calibrating risk tolerance. Specifically, we found that people who reported being concerned with the threat of an Ebola outbreak expressed a lesser desire to engage in risky behaviors compared to those who reported being relatively unconcerned with the threat of an Ebola outbreak. This result is consistent with the hypothesis that pathogen threats in the environment may play an important role in modulating risk tolerance.

Supplemental References

Burrough, B. (2015, February). Trial by Ebola. *Vanity Fair*. Retrieved from http://www.vanityfair.com/news/2015/02/ebola-us-dallas-epidemic

Dindo, L., McDade-Montez, E., Sharma, L., Watson, D., & Clark, L. A. (2009). Development and initial validation of the disinhibition inventory: A multifaceted measure of disinhibition. *Assessment*, *16*(3), 274-291. doi: 10.1177/1073191108328890