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**Contingency Learning in a Medical Context**

**DEBRIEF STATEMENT**

**Details of the Study**

The experiment was conducted during Semester 1, 2018 by Julie Chow (jcho6167@uni.sydney.edu.au) under the supervision of Dr Evan Livesey ([evan.livesey@sydney.edu.au](mailto:evan.livesey@sydney.edu.au)).

**Aim of the Study**

The aim of the study was to investigate whether varying relationships between a cue and outcome will influence subsequent judgements of their causal relationship.

**Background:**

People are relatively good when assessing the relationship between a potential cause and an outcome (Allan & Jenkins, 1983). However, people may also falsely believe that an unrelated cause produces an effect where no such relationship exists (Blanco, Matute & Vadillo, 2009). Our study is interested in investigating the factors that influence people’s ability to learn about causal relationships in a medical context.

In this task, participants were asked to determine the effectiveness of a fictitious drug in treating a condition. They were then presented with a series of trials where the drug was administered or not (No Treatment), and were asked to make predictions about the target outcome. They were then shown the actual medical outcome for that patient in that trial. At the end of the task, participants were asked to make judgements about the drug and its effectiveness in producing the target outcome.

Critically, we are interested in two factors that may influence how direct experience with treatment and outcome are interpreted: what people were told prior to any direct experience, and the overall rate at which they experience the target outcome regardless of the treatment. The first factor was manipulated by presenting groups of participants with slightly different instructions at the start of the study, whereas the second factor was manipulated by controlling the frequency of the target outcome occurring across the entire task.

We predict that although the effectiveness of the drug in producing the target outcome was the same for all participants, variable task instructions and overall frequency of the outcome occurring may result in different interpretations of the causal relationship, thus producing differences in judgements of treatment efficacy.

**References:**

Allan, L. G., & Jenkins, H. (1983). The effect of representations of binary variables on judgment of influence. *Learning and Motivation, 14*(4), 381-405.

Blanco, F., Matute, H., & Vadillo, M. A. (2009). Depressive realism: Wiser or quieter? *The Psychological Record, 59*(4), 551-562.