Judgments About Pre-Meds: Dissecting Stereotypes

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Sponsored by: Rice University's Department of Psychology

Introduction

The Representativeness Heuristic

Heuristics are mental shortcuts that are used to make quick judgments in decisions. People are likely to judge something based on its representativeness of the category rather than noting a known or given probability (Tversky & Kahneman, 1972).

Motivations

Psychology students at Rice and undergraduates in general are often the participant pool for experiments. It could be a concern for researchers, however, if knowledge of psychological theory affects performance on experiments, especially in decision-making. We are investigating whether knowledge of the heuristic affects an individual’s usage of it.

Method

For this experiment, we had 134 Rice undergraduates participate in a survey. They received the base rate information that 20% of Rice students identify themselves as pre-med. Half of participants also received a definition of the representativeness heuristic. They were then given 10 profiles of students. 5 of these were stereotypically pre-med and 5 were not. After each profile, participants were asked to judge whether or not the student seemed pre-med.

We expected that students primed with the blurb would more consciously follow the base rate information since they were aware of the heuristic. They should rate closer to 20% (2 out of 10) profiles pre-med while the participants who aren’t primed should judge on stereotypical information and rate 5 out of 10 as pre-med.

Sample Profile

Directions:

20% of Rice students self-identify as following a pre-medical track. Please go through the student profiles below and indicate whether or not you believe these students are pre-med.

Sample:

Ashley is a junior from Brown College. She’s a Computer Science major who is involved in the SA. Her friends describe her as being very timely and organized. She loves to hang out with friends when her schedule allows. Ashley gets stressed out easily by upcoming deadlines and schoolwork. Is Ashley pre-med?

- Yes
- No

How confident are you in your answer?

References


Results

A 2X2 ANOVA on student responses revealed a statistically significant main effect of type of story read, F(1,132)=620.877, p<0.05, η=0.825; regardless of priming, subjects responded there being more pre-med stories (M=0.77) than non-pre-med stories (M=0.144). The main effect of priming was not significant, F(1,132)=0.482, p>0.05, η=0.004. The interaction was not significant, F(1,132)=0.444, p>0.05, η=0.003; the effect of priming did not depend on type of story read.

Discussion

Our results didn’t show an effect of priming as originally anticipated. Even with the priming paragraph, participants continued to demonstrate use of the representativeness heuristic. In fact, although the results were not significant, participants were more likely to resist the heuristic and judge profiles based on given probability if they were not primed. We believe these results were obtained because participants who were primed did not pay attention to and apply the Rice premed population percentage when judging the profiles. We believe our manipulation did not work, even though participants were asked to confirm that they read and understood our blurb about the representativeness heuristic.