

Can Behavioral Experts Predict Outcome Heterogeneity?

Rumen Iliev

Toyota Research Institute, Los Altos, California, United States

Alexandre Filipowicz

Toyota Research Institute, Los Altos, California, United States

Emily Sumner

Toyota Research Institute, Los Altos, California, United States

Francine Chen

Toyota Research Institute, Los Altos, California, United States

Nikos Arechiga

Toyota Research Institute, Los Altos, California, United States

Scott Carter

Toyota Research Institute, Los Altos, California, United States

Totte Harinen

Toyota Research Institute, Los Gatos, California, United States

Kate Sieck

Toyota Research Institute, Los Altos, California, United States

Charlene Wu

Toyota Research Institute, Los Altos, California, United States

Abstract

Recently Milkman et al. (2021) reported that heterogeneity of outcomes is extremely difficult to predict in advance and that behavioral experts, despite their educational background or their extensive applied research experience, might not be better in their predictions than non-experts. Such findings are rather concerning and deserve more attention. In the current project we present three studies aimed at assessing the quality of human predictions in respect to outcome heterogeneity of behavioral interventions. We borrow methods from anthropology and cognitive psychology to assess both consensus and accuracy of such predictions as well as to evaluate the potential role of behavioral expertise. Our results are more optimistic than previous findings and reveal that experts' predictions are significantly better than a chance level. These findings have implications for applied behavioral research and further advance our theoretical understanding of expertise.