How Relationships Bias Moral Reasoning: Neural and Self-Report Evidence: A Replication Study

Amanda Chan, Nasia Delis, Zag Hervas, Janaki Krishna, Sercy Muyot

Cognitive Science and Psychology Undergraduate Laboratory at Berkeley

Undergraduate Student Mentor: Linda Kawamoto

University of California- Berkeley

Abstract

Implicit biases often cloud our moral judgments when assessing and reporting people's behaviors and crimes. Berg and colleagues (2021) explored this phenomenon, and in this paper, we replicate their methods utilizing multiple regression in Experiment 2B to examine the reliability and validity of their results. In their study, 453 participants read moral scenarios in which a serious crime was committed by either a distant or close other. During this trial, participants were assigned to either think about the relational proximity to the participant or the information about the crime. Each individual then indicated their likelihood of calling the police to report the offender. The findings show that people were more likely to report the stranger and protect the close other. When focusing on either the perpetrator or the crime, emphasizing the former resulted in higher protection from the participants while the latter resulted in higher reporting. Their results are significant in that they present the final causal link between closeness and crime – that people make varying judgments in response to crimes hese decisions can be manipulated by shifting the attention onto a certain subject. These outcomes were replicated successfully in this paper.

Keywords: implicit biases, moral judgments, relationships, crime, morality

Introduction

Berg and colleagues (2021) conducted an experiment to determine how implicit biases affect our moral judgments when considering how close the perpetrator is to the individual being questioned. The results of this study showcased that individuals were more likely to report a stranger rather than a loved one as they hoped to protect those close to them (Berg et al., 2020). The replication of Experiment 2B serves its purpose as it provides convincing evidence that individuals tend to protect the perpetrator when focusing on the individual rather than the crime. This can be utilized in real-life situations and has been a baseline for several other research studies involving implicit biases and moral judgment.

Similar experiments in the past provide contemporary evidence as well as further context when conducting this replication study. Weidman tested whether people are more likely to protect close (vs. distant) others following immoral acts. The majority of individuals deem that they will protect the perpetrator regardless of their relationship status, concluding that people did not view close others' moral infractions as any less immoral (Weidman et al., 2020). When asked to briefly self-distance from the perpetrator, Weidman and colleagues (2020) found that an individual's tendency to protect their loved ones was significantly reduced when facing highly severe immoral acts. Emotions also tend to play a critical role in moral judgment, and individuals are often influenced by anger, disgust, embarrassment, sadness, etc. Maibom, H., (2010) revealed that emotions are intertwined in the decision-making process rather than purely being implicated in the moral judgment itself. To truly analyze the role that emotions play in moral judgments, one must distinguish between rationalism and sentimentalism. In other words, differentiate between actions based on reason and knowledge and the expression of tenderness and nostalgia.

Determining how moral biases influence decisions when considering the severity of a crime is highly significant as its applications are endless. Replicating research studies is crucial as errors can be eliminated and new observations can be made (Plucker & Makel, 2021). As more and more studies are replicated and conducted, various results become apparent and more consistent, thus allowing researchers to come to new conclusions with reliable arguments. Burgoon (1993) concluded that although the research provides insight into interpersonal relationships, additional research is required to have a well-rounded understanding as well as more evidence to provide a convincing argument (p.30-48). By replicating Berg's (2021) Experiment 2B, the original research is validated, and the findings would suggest that the original study can be generalized for larger applications and future research studies.

Methods of the Original Paper

In conducting our replication of this experiment from Berg et al. (2021), it is important to understand the methodology and implications behind the original research. The experiment had participants imagine scenarios in which a high-severity crime was being conducted either by somebody with whom they had a close relationship, such as a friend or family member, or a distant relationship, such as a doctor or neighbor, to further study the way that the perpetrator's relation to an observer of a crime holds influence over the observer's decision to punish or protect them. This experiment and its goals are relevant in the context of the study as they seek to narrow down the findings of the previous experiments, which found that high-severity crimes do not diminish the effect of the closeness to the perpetrator, and also have higher moral stakes, thus making for a stronger test. Furthermore, the experiment is a continuation of experiment 2a,

which found that observers were more likely to protect a perpetrator when they focused on who they were rather than the immoral action in a given scenario, so this experiment seeks to prove this finding in terms of closeness to the perpetrator as well.

In the original study, 799 participants were recruited through Prolific Academy. From the pool of selected responses, responses were excluded due to participants spending 12 seconds or less imagining the scenario, a time selected before data collection, and an additional ten responses were excluded due to participants self-reporting their answers as invalid.

Participants were first asked to name people they deemed close to them and deemed distant. They were briefly asked about their relationships with these people to confirm the closeness of each individual. After identifying these close and distant others, participants were asked to imagine themselves witnessing an immoral act of high severity committed either by a named close or distant person.

Next, in order to test for variations in response based on focusing one's attention or the crime itself, in addition to the variations in closeness of the given, participants were given 30 seconds after having imagined this scenario to focus on the assigned variable type, either the person committing the crime or the crime that was committed. Predictions of people's intentions to protect the perpetrator given these factors and their interactions together were estimated using a linear regression model.

Having imagined the scenario and considered either the action or the person involved, participants were then asked to decide whether they would report the person having committed the crime to a police officer. Finally, participants were tasked with rating the extent to which their decision had been influenced by who had committed the crime in the scenario (close versus distant other), as well as by the immoral act itself,.

Methods of your Replication Data Analysis

Our group conducted the replicated study and overview of data analytics through a series of step-by-step processes in which we could verify and even add to the data created through the original study. Study replication is important to verify the evidence that Experiment 2b claims to provide regarding the relationship between closeness and the "crime vs. person" factor to the likelihood of the participant to protect the perpetrator. Conducting replications allows for the validation of the experiment results and for the study to potentially be a foundation to future related studies. In this case, our group used R code or RStudio to replicate and analyze the data. During this process, we ensured that all factors were accounted for, verified if all the questions and methods taken were necessary for the findings, and included statistics typically not highlighted in the original study regarding the data.

We received the data from the original study, which we had obtained through osf.io. We then inputted the data into Rstudio using the "read.csv" function. Our first step was to review the methods from the original study regarding excluding participants. The original study excluded two groups of participants: those who perceived their response as untrustworthy in the survey and those who did not take at least 12 seconds to read the study. Our group collectively decided that both of these exclusions were reasonable and important to the validity of the study's results. Thus, we chose not to change the number of answers included and to keep the numbers and variables the same.

Before being able to use the data to draw conclusions, it is important to conduct data cleaning to allow for the statistics to be easily understood and used for replication. Using the "as.numeric" function, we reviewed the age group distribution of the participants' age group

distribution and ensured that the gender distribution was relatively equal and valid. Next, we proceeded to rename a variable for convenience by changing "report_1" [referring to the level of likelihood to report] from the original study to "Report" in our study. We then created a new variable named "Protect" by flipping the "Report" scale. For example, for "Report," we used a scale of one to six of which six was most likely to report, and flipped this scale for "Protect." We then adjusted the closeness and crime vs. person factor variables to a numeric value on a scale of -0.5 to 0.5. For instance, -0.5 would represent poor closeness and that the factor assigned to the person was crime. We then reviewed the statistics assigned to the participants to verify that a fair number of participants were assigned the variables regarding closeness [whether they are distant or close to the perpetrator] and crime vs. person factor [whether they were asked to think about the person or the immoral act before reporting].

The final step in putting together the replication study for analysis and conclusion was creating the multiple linear regression model. Our group used this model to predict the relationship between the two independent variables of closeness and person vs. crime and the dependent variable of the likelihood of protecting the perpetrator. We also analyzed the concept of interaction in the study, which is the relationship between the two independent variables in terms of the dependent variable. However, we found the correlation between the independent variables to be very minute in our study and thus did not focus on interaction in our replication analysis. Using the "lm()" function, we constructed the multiple regression model to analyze the data and the results.

Results of the Replication

Consistent with the original study, our data analysis showed the same results with participants being more likely to protect close versus distant others (95% CI [1.46, 2.03], $p <$

.001). Our replication also aligned with the original results of (95% CI [0.06, 0.61], p = .02) concerning the causal link of having the focal information be on the perpetrator than the crime itself and protecting the perpetrator. This experiment solidifies the causal link between the participant focal point and the treatment of the perpetrator.

Discussion and Future study

In our replication study, we successfully re-ran the data analysis with R and duplicated the experiments in the paper. Breg's conclusion in the original paper is well-defended by the testable data, which reveals that the closeness of the perpetrator affects people's moral judgment. Our replication study supports that the original experiments and methods are meaningful. The study also contextualizes many claims in the original paper. For example, we see more directly with numbers that there is a huge statistical difference when the participant is asked to focus on the individual and the crime, respectively. While our study dug deeper into the 2B experiment, one possible limitation of it is that it is possible to overlook the larger context of the paper and where the paper is situated in the development of moral reasoning. A big-picture concern for replication studies, in general, is that not enough studies are being done. Replication study is vital for future development in psychology for reliability checks that increased use of replication is called for.