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Crime and Biased Punishment:
The Biasing Effect of Pretrial Incarceration on Judgement

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Abstract

The present study examined whether a defendant's treatment prior to trial biases people's perceptions of the defendant's guilt, the perceived severity of the crime, and ratings of the fairness of the legal process. Participants (N = 146) were informed of the defendant's pretrial treatment (at home; incarcerated; no information) and his income (45,000/yr or 110,000/yr). Participants read information about a crime, made judgments, and completed both individual and general measures of Belief in a Just World (BJW). When informed that the defendant was incarcerated prior to trial, participants rated the defendant as significantly less likely to be guilty than those who received no information. Incarceration prior to trial was also judged as the least fair of the pre-trial treatment conditions. The defendant's income had no significant effects; however, when participants were informed that the defendant was incarcerated prior to trial and had a low annual income, they provided a more detailed justification of their ratings than participants in any other condition.

Keywords: pretrial incarceration, just world theory, cognitive bias

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The Office of the Federal Ombudsman for Victims of Crime states that in Canada, a person may be detained in custody pre-trial to ensure public safety, to perpetuate trust in the administration of justice considering the seriousness of the crime, or to guarantee their presence in court (2017). Alternatively, the court can decide to release the defendant back into the community while they await trial; an individual may be released on 'judicial interim'- under conditions determined by the court- failure to uphold the conditions of their release will result in a predetermined fine (Criminal Code, 1985, s 515 (2)). Canada has experienced an annual decline in incarceration rates over the past four years. This decline has created a situation in which the number of adults in provincial/territorial correctional services' remand population (awaiting trial or sentencing) tends to exceed the number of adults in sentenced custody (Malakieh, 2020). Ergo, though the country has seen a decline in incarceration, individuals have been placed in remand at exceptional rates when compared to the sentenced population.

In other countries, such as the United States of America, most defendants are required to pay for release on bail; many of whom are unable to afford the required sum (Dobbie et al., 2018). Thus, individuals who have committed the same crime may experience very different living conditions prior to their appearance in court. A potential source of biasing information is knowledge of the defendant's pretrial living conditions (incarcerated or not). Just world theory (Lerner, 1980) and the cognitive dissonance (Festinger, 1957) literature reveal that individuals are inclined to believe that people are granted what they deserve and that if they truly did not deserve to be in prison, they would not have been; believing otherwise would likely result in discomfort for the individual determining guilt (Bai et al., 2014; Monacell, 1977). However, research to determine whether awareness of pretrial incarceration (included in the remand population in Canada) may become a source of bias in the judicial decision-making process is limited.

While some studies have considered the effects of pretrial incarceration on verdict outcomes, many have done so by examining available statistics from previous trials in America (Dobbie et al., 2018; Oleson et al., 2016; Stevenson, 2018; Tartaro & Sedelmaier, 2009). The existing literature has established a relationship between pretrial incarceration and conviction, such that being incarcerated before trial has been found to increase a defendant's likelihood of conviction (Dobbie et al., 2018; Stevenson, 2018). Additionally, the literature suggests that being

detained pretrial is associated with longer sentencing lengths (Oleson et al., 2016). The purpose of the present study is to investigate the effect of knowledge of pretrial incarceration on subsequent judicial judgements.

Theoretical Framework

Cognitive Bias

'Bias' refers to instances in which people systematically deviate from evidence-based information processing or judgement (MacLean et al., 2020). The literature surrounding cognitive bias postulates that extraneous variables create bias when an individual is faced with the task of making decisions or judgements (Edmond & Martire, 2019; MacLean & Dror, 2016). These variables are cognitively processed without a person's knowledge or control. As such, all people, even judges who are trained in decision-making, are susceptible to bias. For instance, research has demonstrated that the expectations judges hold create a biasing effect in the judicial decision-making process, such that a judge's beliefs regarding the defendant's guilt have a considerable impact on the jury instructions and, as a result, on the verdict (Edmond & Martire, 2019). Though judges are often thought of as being exceptionally skilled at considering information impartially, bias has been found to be impervious to intelligence, occupation, and expertise (Edmond & Martire, 2019). These effects may be particularly salient when making judgements about something, such as the likelihood of a defendant's guilt because the veracity of such decisions is not readily available (MacLean & Dror, 2016). There are many sources of bias, though this research will focus primarily on irrelevant contextual information, cognitive dissonance, and belief in a just world as biasing factors.

Irrelevant Contextual Information

In decision-making, errors occur when context supports easy access to certain knowledge relative to the material being analysed, or favours perceiving a scenario as more stereotypical than would be reasonable given a rational assessment of the facts (MacLean & Dror, 2016). Irrelevant contextual information includes immaterial variables that may have an impact on an outcome; this information should not be taken into account when making judgements. For example, a study that utilized a forensic comparison task found that when examining fingerprints, contextual information about the case, such as how severe the crime was reported to be, was found to influence experts' conclusions (Searston et al., 2016). Previous research has yielded extensive evidence to support the notion that contextual details influence judicial-decision making where

verdicts and discretion in sentencing are considered (Kahneman et al., 2021; Tartaro & Sedelmaier, 2009).

Cognitive Dissonance in Decision-Making

According to Festinger's (1957) theory of cognitive dissonance, people experience psychological discomfort when presented with cognitions (i.e., knowledge, beliefs, opinions, and awareness of their actions) that are discerned as being in conflict. For instance, a jury member who acquitted a defendant who they believed might truly be guilty would likely experience dissonance due to the inconsistency between their beliefs and actions. When a person experiences these discrepancies among cognitions, the resulting negative psychological state motivates them to reduce dissonance (Hinojosa et al., 2017). A common method for the reduction of dissonance is the change or elimination of contradictory cognitions, namely, those that are the most susceptible to change (Hinojosa et al., 2017; Monacell, 1977). This reduction strategy becomes problematic when examined in the context of decision making. When dissonance reduction is accomplished by altering the appraisal of information used to make decisions, it can lead to inaccuracies in people's perceptions and judgements (Beasley, 2016).

This knowledge can accordingly be applied to the criminal justice system. In criminal trials, it is the duty of both the judge and the jury to determine beyond a reasonable doubt whether the defendant is guilty; this decision is to be reached on the basis of judgements of presented evidence (Maegherman et al., 2021). In a review of the jury decision making literature in capital death cases, Springer and Lalasz (2019) proposed that jurors are more likely to judge a defendant guilty as a method of resolving the conflict they experience between the trust that they are encouraged to maintain in the criminal justice system (and their detainment of guilty people), and a defendant on trial whom they are asked to perceive as innocent until proven guilty. Furthermore, in situations wherein individuals must choose between alternatives, their decision is more likely to be influenced by dissonance when the consequences of the choice are perceived as severe (Vidmar, 1972). An example of this took place when people were asked to make sentencing decisions for a mock trial and tended to select a lesser sentence when they perceived the alternative as too severe given the nature of the crime (Vidmar, 1972). Therefore, we can assume that when making judicial judgements, biases arising from cognitive dissonance can influence the outcome.

Just World Theory

The just world theory proposes that people believe that the world is a fair place in which individuals get what they deserve ("Just-world hypothesis," 2020), a phenomenon referred to as belief in a just world (BJW). This belief allows people to feel as though they have control over their lives and view the world as a manageable place (Schindler et al., 2019). Belief in a just world shapes people's appraisals of others. Lerner (1980) states that when faced with an injustice, people will seek to eliminate it; this is done by reappraising the situation so that responsibility is placed on the victim of the injustice, the outcome is interpreted as desirable, or the victim is seen as deserving of their fate. Facing injustice may threaten an individual's belief in a just world, a situation that evokes cognitive dissonance as they face the conflict between believing the world is a fair place and considering an unfair situation.

Research has demonstrated that BJW influences perceptions of both victims and perpetrators of crime (Bai et al., 2014; Hafer, 2000; Scott et al., 2014; Strömwall et al., 2017). For instance, when people were given information about a victim who gained no retribution for the crime against them, individuals appraised the victim's character more negatively; in this case, BJW likely conflicted with participants' knowledge that the victim did not receive justice, creating the impetus for the lesser appraisal of the victim (Hafer, 2000). Previous research has established that when an individual holds a strong just world belief, they are likely to perceive an individual's corruptive behaviour as less intentional, thus reducing the blame placed on the perpetrator (Bai et al., 2014). Additionally, several studies have demonstrated that those who hold stronger BJW hold the victim more accountable and the perpetrator less accountable than those who hold less BJW (Scott et al., 2014; Strömwall et al., 2017).

This information becomes critical when examined in the context of judicial decision-making. The notion that individuals who hold stronger BJW are more inclined to place blame on the victim of a crime (Hafer, 2000; Scott et al., 2014; Strömwall et al., 2017) carries serious implications for judgements of guilt in a criminal trial.

Focus of the Current Study

There are many sources of bias to consider when examining the legal system. Our interest is in examining irrelevant contextual information, cognitive dissonance, and belief in a just world as potential biasing factors in judicial judgements. Some research has explored pretrial incarceration effects on verdict outcomes as well as sentencing lengths. None of the existing

literature has undertaken a controlled lab-based exploration of the topic. Research shows that knowledge of pretrial incarceration predicts the likelihood of conviction, as well as the sentencing length of defendants (Oleson et al., 2016; Dobbie et al., 2018). Much of the existing literature, however, focuses on pretrial detention in relation to demographic factors such as race and economic status. Additionally, the aforementioned studies only explore data relating to cases in the United States, none of which utilized a controlled experiment to test the effects of pretrial incarceration on judgement. The present study aimed to determine, using a controlled experiment, whether knowledge of pretrial detention alone has a biasing effect on judicial decision making.

Hypotheses

Because of the natural tendency for people to view the world as a just place, we believed they would be influenced by the knowledge that the defendant was incarcerated before trial and, believing people get what they deserve, would be inclined to view the participant as guilty. Additionally, we believed that the arising discomfort from the knowledge that the defendant spent time in prison awaiting trial - but may not have been guilty - would motivate participants to reduce dissonance by reinterpreting the information and appraising the defendant as guilty. Thus, we predicted that individuals who were aware that the defendant was incarcerated before trial would rate the victim's guilt, the crime's severity, and the justness of the legal process higher. Additionally, we predicted the occurrence of a moderation effect of strength of belief in a just world (BJW), such that a stronger BJW would increase the magnitude of the relationship between knowledge of pretrial incarceration and participants' legal judgements.

Intimately interwoven into criminal situations are defendants' socioeconomic status (SES) and their ability to post bail. We did not anticipate achieving a main effect of income level on our dependent variables. SES is a factor that could, however, affect how our participants experienced our critical manipulation, and thus, we controlled for it by manipulating it. We also acknowledged the possibility that we would find a defendant treatment by income level interaction, such that those in the low-income/incarcerated condition would have the highest ratings of guilt, crime severity, and justness of the legal process as this is the most dissonance inducing condition.

Method

Participants

Participants were recruited through the Kwantlen Polytechnic University [KPU] research pool (SONA), through social media platforms such as Facebook, and through Mechanical Turk

[MTurk]. Student participants in KPU courses whose instructors gave bonus credit for research received course credit for their participation. Participants who gained access to the study via MTurk received monetary compensation in accordance with the platform's policies and posted compensation rate. Those who were recruited through social media or whose courses did not participate in bonus credits did not receive any compensation for their participation.

According to a priori power analysis conducted using G*Power 3.1, a minimum of 158 participants were required to observe our smallest effect of interest (i.e., a test for main effects of our independent variable; $d = .25$; $a = .05$; $[1 - ß] = .8$). To obtain equivalency in each of the six groups we rounded this number to 162. Additionally, we accounted for an anticipated 20% data loss due to failed attention checks and/or missing data. Taking the 20% data omission into consideration, we aimed to recruit 33 additional participants for the study. Therefore, our minimum total N was 195 participants. Participants were required to be 16 years of age or older.

All data was collected prior to analysis and coding to protect its integrity. Our initial sample was 296 participants; however, our final sample was comprised of 146 participants after assessment of participants' responses to manipulation and attention check items.

The manipulation check items asked participants to indicate the defendant's living conditions prior to trial ('At home', 'In jail', or 'There was *no information* about where he was living'), in addition to the defendant's average yearly income ('45,000', '75,000', '110,000', or 'I don't know'). Participants who did not correctly answer these questions were excluded from data analysis. After analyzing responses to the manipulation check items, eighty-eight participants were removed (30% of the initial sample). The attention check item asked participants to indicate the amount of money required for the defendant to be released on bail ('5,000', '10,000', or 'I don't know'). Failure to correctly answer the attention check resulted in the exclusion of data. Four participants were excluded for incorrectly answering the attention check question. An additional thirty-nine participants failed to provide responses to one or more of the manipulation or attention check items and were subsequently excluded. Six participants indicated that they wanted their data removed from the analysis, they were also excluded. To ensure that data of poor quality was not being considered for analysis, participants who took longer than forty-five minutes or less than five minutes to complete the survey were removed, resulting in the loss of an additional eight participants.

Materials

Background information

Participants were provided with information about 'Mr. Paul' (Mr. Paul was the defendant in the vignettes that followed), which contained the critical manipulations; the manipulations were the treatment of the defendant (Release, No Release, Control) as well as the income level of the defendant (High, Low) (see Appendix A). The defendant was either described as having a low or high income and was released on bail, detained awaiting trial, or the information was not provided (control condition), depending upon which condition the participant was randomly assigned to.

Vignettes

The participants were given one of two vignettes that describe the details of the committed crime and the details surrounding bail (See Appendix A). One vignette described a physical fight occurring outside of a bar in which a man suffered life threatening injuries; the vignette included the details of the defendant's arrest as well as the set bail. The other vignette described a hit-and-run vehicle accident in which a man suffered life-threatening injuries; again, the vignette included details of the defendant's arrest as well as the set bail. The two vignettes were equivalent in severity, but the crime was different. A single attention check item was added to ask about the bail set for the defendant's release. Failure to answer this question correctly resulted in the exclusion of data.

Measures

Demographics

Participants received a four-item questionnaire asking about their age, gender identity, ethnicity, and English language proficiency.

Perceived Guilt, Crime Severity, and Justness of the Legal Process

Participants were presented with our dependant variables in the format of an eight-item questionnaire (see Appendix B). Participants were asked about perceived guilt of the defendant, how just they believed the legal process to be, how severe they believed the crime to be and why they believed the participant did or did not pay bail. Two attention check items were added which ask about income level as well as where the defendant was living. Failure to answer these questions correctly resulted in exclusion of data.

Belief in a Just World Scales

Two scales developed by Dalbert (1999) were utilized to measure the strength of participants' individual and general just world beliefs. The individual scale was comprised of a seven-item measure answered on a six-point scale from strongly disagree to strongly agree. The general scale was a six-point scale of the same structure. Drawing on the literature supporting the use of differentiated individual and general scales (Lipkus et al., 1996; Dalbert, 1999), we included separate measures of the two constructs. Both scales have been tested for validity and found to be reliable (Dalbert, 1999).

Procedure

The current study utilized a quantitative between-subjects design to investigate the effect that knowledge of a defendant's living conditions prior to trial would have on subsequent judicial judgements. Participants were randomly assigned to one of six conditions in which they received background information about 'Mr. Paul' (income level: high, low) and his living conditions prior to trial (pretrial treatment: at home, in jail, no information).

Participants used the Kwantlen Polytechnic University SONA research pool, social media, or Amazon's Mechanical Turk (MTurk) to gain access to the 30-minute online study conducted via the Qualtrics survey system. After providing informed consent, participants received information about 'Mr. Paul' which contained the critical manipulations (See Appendix A). Following the initial manipulations, the participants were given one of two vignettes that describe the details of the committed crime and the details surrounding bail (See Appendix A). After reading the vignettes, the participants were presented with our dependant variables (See Appendix B). Participants answered questions about the information they just received. Succeeding the dependant variable questions, participants were presented with the global belief in a just world scale (see Appendix C). Finally, the participants were debriefed.

Explanation of Ratings: Coding

Responses to the open-ended question, "Please explain your rating of the likelihood of the accused's guilt," were coded by two raters. A thorough set of definitions was developed based on identified trends in the responses, which both raters followed while coding. Thirteen items were identified (See Appendix D), which can be categorized in the two broad categories: statements of guilt and statements of innocence. Statements of guilt included reference to evidence which participants considered reliable or incriminating. Statements of innocence included reference to

evidence which participants considered exonerating or insufficient for conviction. Under each category, a global statement of insufficient or unreliable evidence contributing to innocence, a global statement of sufficient or reliable evidence contributing to guilt, and more specific items regarding the details of the evidence were included. We obtained an inter-rater agreement rate using Cohen's kappa, which was found to be .91. Variability in coding was corrected through debate and agreement using the coding principles.

Results

Analysis of the results included the implementation of univariate 2 (Income level; high versus low) x 3 (pretrial treatment; at home, in jail, or no information was provided) between-subjects ANOVAs on the dependent variables of likelihood of guilt, perceived fairness of the legal process, and perceived crime severity. The effects of the ANOVAs were tested at the $\alpha = .05$ level of significance.

Guilt Likelihood

The results revealed a significant main effect of treatment, $F(2,140) = 4.09$, $p = .02$, $\eta_p^2 = .05$, on the dependent variable of the likelihood of guilt. Post hoc pairwise comparisons using the Bonferroni test of significance indicated that participants in the 'no information' condition perceived the defendant as significantly more guilty than participants in the 'in jail' condition ($M = -14.46$, $SD = 5.28$), $p = .02$. No significant differences were found among other conditions. No main effect of income was observed, $F(1,140) = 0.62$, $p = .43$, $\eta_p^2 = .004$.

Fairness of the Legal Process

The dependant variables 'fairness of the legal process' and 'fairness of the defendant's treatment' appeared to be highly correlated. We ran a reliability analysis on the two variables to determine Cronbach's alpha, which was found to be .912. Thus, the two variables were collapsed to create the dependant variable of 'fairness of the legal process'.

We observed a significant main effect of treatment, $F(2,137) = 23.12$, $p < .001$, $\eta_p^2 = .25$, on the dependent variable of fairness of the legal process. When participants were asked how fair they believed the legal process and treatment of the defendant to be, participants who were in the 'jail' condition rated the process as more unfair than those in the 'no information' or 'home' conditions. Post hoc pairwise comparisons indicated a significant difference between the 'jail' and the 'no information' conditions, $p < .001$, as well as a significant difference between the 'jail'

and 'home' conditions, $p < .001$. No main effect of income was observed, $F(1,137) = 0.87$, $p = .35$, $\eta_p^2 = .01$.

Sentencing Length

We analyzed responses from 104 participants to examine the dependant variable of sentencing length (from 1 day to 10 years). A total of 42 responses were excluded from the analysis due to an absence of data and responses in which days or months were not specified. Due to the loss of data, we examined only descriptive statistics on this variable, and no ANOVAs were conducted.

Participants indicated an average of 1578 days ($SD = 1345.2$), or 4.3 years, as the deserved sentence length should the defendant be found guilty. Sentence length differed across treatment conditions; those in the 'home' condition suggested the longest sentences on average ($M = 1692.4$, $SD = 1570.80$), followed by the 'no information' condition ($M = 1581.63$, $SD = 1171.30$), and finally, participants in the 'jail' condition indicated the lowest deserved sentence length on average ($M = 1462.45$, $SD = 1214.67$).

Crime Severity

No main effects of treatment, $F(2,140) = .56$, $p = .57$, $\eta_p^2 = .01$ nor income, $F(1,140) = 1.11$, $p = .29$, $\eta_p^2 = .01$, were observed on the dependent variable of crime severity.

Belief in a Just World Measure

A Pearson correlation coefficient was calculated to evaluate the relationship between Belief in a Just World (BJW) scores and each of our dependent variables. A significant positive correlation was found between BJW scores and fairness of the legal process, $r(139) = .27$, $p = .001$. Correlations between BJW scores and both likelihood of guilt, $r(139) = .08$, $p = .34$, and crime severity, $r(139) = .01$, $p = .91$, were nonsignificant.

To investigate whether BJW influenced the relationship between treatment and fairness of the legal process, a moderation analysis was conducted using the Hayes PROCESS model. The predictor variable was treatment, the outcome variable was the fairness of the legal process, and BJW was the proposed moderator. The interaction between fairness of the legal process and BJW was not found to be statistically significant, B = -.97, 95% CI [-7.46, 5.52], $p = .77$. This interaction must be statistically significant to support the moderation hypothesis (Baron & Kenny, 1986); thus,

the results revealed that BJW does not moderate the relationship between treatment and how fair participants perceived the legal process to be.

Open-Ended Responses

Three variables were created from the coded responses, which asked participants to explain their guilt ratings. One variable was created with the total number of details included by participants in their responses; this included the sum of all identified items (see Appendix D) apart from the global statements of innocence and guilt. A variable was also created for each general category (statements of innocence and statements of guilt). By creating these variables, we were able to examine whether differences in statement density, i.e., the level of detail included, occurred between conditions and whether certain conditions identified more evidence contributing to guilt/innocence than others.

Analysis of statement density was conducted using a univariate 2 (Income level; high versus low) x 3 (treatment; incarcerated, not incarcerated, no information) between-subjects ANOVA, tested at the $\alpha = .05$ level of significance. Results exhibited a significant income x treatment interaction, $F(2,138) = 5.20$, $p = .007$, $\eta_p^2 = .07$. A simple effects analysis of the interaction demonstrated that the statement density from participants in the low-income condition was significantly higher ($M = 1.88$, $SE = .21$) than those in the high-income condition ($M = 1.00$, $SE = .19$). The statement density in responses was similar in the high and low income conditions for participants in the not incarcerated and no information conditions.

To explore the differences between statements of innocence and statements of guilt across treatment conditions, a repeated measures ANOVA was performed. Results revealed a significant effect of frequency of statement type, $F(1,38) = 108.07$, $p < .001$, $\eta_p^2 = .044$, such that participants made significantly more statements of innocence ($M = 1.52$, $SE = .10$) than statements of guilt ($M = .27$, $SE = .05$). Effects of treatment on the frequency of statement types was insignificant, $F(2,138) = 2.31$, $p = .10$, $\eta_p^2 = .03$, as were the effects of income level, $F(1,138) = 2.64$, $p = .11$, $\eta_p^2 = .02$.

Discussion

Defendant Treatment

Knowledge of the defendant's pretrial living conditions influenced participant's perceptions of both the likelihood of guilt and the fairness of the legal process. Based on the literature which posits a tendency for individuals to eliminate apparent injustices by reappraising

the situation to place blame on the victim (Lerner, 1980; Scott et al., 2014; Strömwall et al., 2017), we predicted that participants would be inclined to rate the defendant as more guilty when presented with the knowledge that he spent time in prison awaiting trial. If the defendant were found to be innocent, he would have spent two years in prison awaiting trial and faced the loss of his job in the process for no reason, thus becoming a victim of injustice. However, contrary to our predictions, participants who were given information that the defendant was incarcerated before trial perceived him as the least guilty. One possible explanation for this discrepancy between our predictions and results is that the participants engaged in dissonance-reducing tactics, such as reappraisal of information, in such a manner that they placed more blame on the victim of the crime rather than the defendant. The literature surrounding BJW and victimization has demonstrated that when individuals hold a higher level of BJW, they attribute more victim blame (Strömwall et al., 2017). However, participants in the incarcerated condition rated the process as the least fair, demonstrating a belief that the defendant was in some way a victim of injustice, so it is more plausible that they did recognize the defendant as a victim but employed other means of reducing dissonance.

An alternative explanation of our findings draws on intergroup relationships and self-construal levels. Intergroup research has demonstrated that people have a propensity to be harsher on ingroup offenders than on outgroup offenders (Kerr et al., 1995). In essence, they are more punitive toward offenders who are similar to themselves. Lerner and Miller (1978) postulate that individuals feel a decreased need to defend their just world beliefs when injustice occurs outside of their social environment. In line with this research, social self-construal (the aspect of one's self-concept that integrates oneself with others) is associated with higher levels of victim blame, and individual self-construal (the aspect of one's self-concept that distinguishes them from others) is associated with lower levels of victim blame (van Prooijen & van den Bos, 2009). It is conceivable that participants in our study did not identify strongly with the defendant, and, therefore, did not attribute blame to him, even though they appeared to view him as a victim of injustice. The threat posed by the defendant to the participants' just world beliefs may not have been adequate to induce severe judgements; it is possible that a fundamental difference is perceived between criminals and noncriminal participants.

Cognitive Effort in Open-Ended Responses

Interestingly, we found that individuals exposed to the incarcerated/low-income condition, the condition which we identified as the most dissonance-evoking, expended the most cognitive effort in justifying their ratings of guilt. The literature surrounding cognitive dissonance suggests that a dilemma perceived as more difficult will elicit greater effort in the reduction of inconsistencies (Lindholm et al., 2020). Decisions such as judgements of guilt are ambiguous because access to the truth is not readily available (MacLean & Dror, 2016), hence, they are more difficult than if decision-makers could determine with certainty whether the defendant was guilty. So, it is then possible that when faced with a more difficult decision (i.e., whether the defendant was guilty), participants invested more cognitive effort in forming their judgement. This contradicts our initial assumptions that participants would rely on heuristics to make judgements about the defendant.

Moreover, theory surrounding the motives behind helping behavior gives some insight into the interaction between income and treatment level. Research has found that individuals are more likely to help someone when the cause of their need is uncontrollable (Rudolph et al., 2004). Participants included significantly more detail in justifying their decisions of guilt when the defendant had a low income and was incarcerated than when he had a high income or any other living conditions pretrial. Hence, participants may have been more inclined to help the defendant by devoting more effort to their response when they believed that the circumstances surrounding his living condition were out of his control.

Limitations

A major limitation of this study was certainly the loss of data we experienced due to failed manipulation checks. Notably, forty-six participants in the 'no information' condition failed the question which asked them to recall where the defendant was living prior to trial. This resulted in a lower sample size ($n = 33$) for the no information condition than that of the incarcerated ($n = 53$) and not incarcerated conditions ($n = 60$). As a result of data loss, we were also unable to run statistical analyses on the dependant variable of sentencing length.

Use of a convenience sample also raises the issue of the external validity of our research. Within the field of legal psychology, many considerations about generalizability to real-world situations must be taken into account. Konečni and Ebbesen (1976) have demonstrated that employing different research designs, testing different subjects, conducting research in different

settings, and employing the use of different research materials can produce drastically different results when examining the same legal decision; archival research is then identified as more reliable than simulated studies (1979). However, when investigating an individual potentially biasing piece of information, such as pretrial living conditions, conducting archival research on the topic may provide researchers with only the knowledge that a bias is occurring but may not inform us as to how it occurs. Accordingly, future research on this topic may consider employing the use of archival data prior to investigation in a simulated manner.

Conclusion and Application

Our results reveal that knowledge of a defendant's living conditions prior to trial does have some influence on perceptions of both guilt likelihood and the fairness of the legal process. Further, our findings imply that individuals consider information more thoroughly when faced with an unjust situation. Replication of this study in future research may generate clearer results.

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Appendix A

Materials

MATERIALS

Details about Mr. Paul

Mr. Paul is a 25-year-old Caucasian male.

Insert **Treatment Manipulation** here

Insert **Income Manipulation** here: "Mr. Paul's annual income is ------

(1) Treatment Manipulation

Release: "Mr. Paul spent two years living at home awaiting trial. During that time, Mr. Paul maintained his job. Two years after his arrest, Mr. Paul stood trial for the assault."

No Release: "Mr. Paul spent two years in jail awaiting his trial. During that time, Mr. Paul lost his job. Two years after his arrest, Mr. Paul stood trial for the assault."

Control. "Two years after his arrest, Mr. Paul stood trial for the assault."

(2) Income Level Manipulation

High: $110,000/yr
Low: $45,000/yr

Vignettes

1. Assault Vignette:

On the evening of November 21, a 24-year-old male was assaulted outside a bar in Edmonton, Alberta. The man was severely beaten and suffered life-threatening injuries. Though he survived, he remained in a coma more than 2 years after the assault. Just over a week after the assault, Robert Paul was arrested on charges of attempted murder.

A judge set his bail at $30,000 which included a $5,000 cash deposit to the court. Thus, in order to live at home and be in the community while awaiting his trial, Mr. Paul would have to show that he had $30,000 in cash or assets that would be forfeited if he did not appear for his trial. In addition to showing he had $30,000 in assets, Mr. Paul also had to provide a deposit of $5,000 cash to the court.

At trial, the victim was not able to attend due to his medical condition. There was one eyewitness to the assault who testified, with certainty, that Mr. Paul committed the assault. On cross-examination, it was revealed that the eyewitness did not know Mr. Paul before the incident and that the lighting conditions at the time of the event were poor. A friend and co-worker testified that Mr. Paul was at work until after the assault occurred and so could not have committed it. A fingerprint from the assailant was found at the scene. Although, analysis of the print could not rule out Mr. Paul, it was too degraded to make a conclusive judgment.

2. Hit-and-Run Vignette

On the evening of November 21, a 24-year-old male was struck by a vehicle in Edmonton, Alberta. The event was a hit and run. The man who was struck was severely injured and suffered life-threatening injuries. Though he survived, he remained in a coma more than 2 years after the incident. Just over a week after the hit and run, Robert Paul was arrested on charges of attempted murder.

A judge set his bail at $30,000 which included a $5,000 cash deposit to the court. Thus, in order to live at home and be in the community while awaiting his trial, Mr. Paul would have to show that he had $30,000 in cash or assets that would be forfeited if he did not appear for his trial. In addition to showing he had $30,000 in assets, Mr. Paul had to provide a deposit of $5,000 cash to the court.

At trial, the victim was not able to attend due to his medical condition. There was one eyewitness to the hit and run who testified, with certainty, that Mr. Paul committed the hit and run. On cross-examination, it was revealed that the eyewitness did not know Mr. Paul before the incident and that the lighting conditions at the time of the event were poor. A friend and co-worker testified that Mr. Paul was at work until after the hit and run occurred and so could not have committed it. Tire marks from the assailant's vehicle were found at the scene. Although analysis of the tire

marks could not rule out Mr. Paul's vehicle, they were too degraded to make a conclusive judgement.

Appendix B

Dependent Variables

DEPENDENT VARIABLES

Please think back to the scenario you just read and respond to the questions below:

Where was Mr. Paul living in the time between the incident and going to trial?

    A) There was *no information* about where he was living

    B) At home

    C) In jail

What was Mr. Paul's average yearly income?

    A) $45,000

    B) $75,000

    C) $110,000

    D) I don't know

Mr. Paul's bail was set at $30,000 in assets and cash. To be released on bail, and thus live at home while awaiting trial, how much money did the court require that Mr. Paul pay?

    A) $5,000

    B) $10,000

    C) I don't know

----

1. How likely do you think it is that the accused is guilty?

      From 0 (not at all likely) to 100 (extremely likely) _____

2. Please explain your rating of the likelihood of the accused's guilt.

3. How serious do you believe the crime is?

0 (not at all serious) to 100 (extremely serious): _____

4. Two years passed between when the accused was arrested and when the trial took place. Given the information provided in the scenario, how fair/just do you believe the treatment of the accused was in that two-year period?

0 (not at all fair/just) to 100 (extremely fair/just)

5. What is the primary reason why you rated the treatment of the accused as fair/just or unfair/unjust?

6. Given the information provided in the scenario, how fair/just do you believe the entire legal process was in this case?

0 (not at all fair/just) to 100 (extremely fair/just)

7. What is the primary reason why you rated the treatment of the accused as fair/just or unfair/unjust?

7. For the next two questions only, assume that Mr. Paul was convicted and found guilty at trial.

(a) The judge has discretion to sentence Mr. Paul to either incarceration (i.e., going to prison) or probation without incarceration (i.e., live in the community, but with restrictions). Should Mr. Paul sentenced to:

Incarceration _____

OR

Probation without incarceration _____

(b) Assuming a period of incarceration (i.e., prison), the judge may sentence Mr. Paul to between 1 day and 10 years. For how long should the judge incarcerate Mr. Paul? Note: Any time Mr. Paul has already spent in prison will be deducted from his sentence (for example, if he spent two years in prison awaiting trial, and he was sentenced to 10 years, he would spend another 8 years in prison. The sentence you recommend should reflect the full sentence—do not consider pre-trial incarceration).

_____

8. What do you believe is the most probable reason Mr. Paul paid the $5,000 bail? (1 reason)

8. What do you believe is the most probable reason Mr. Paul didn't pay the $5,000 bail? (1 reason)

Appendix C

Individual and General Belief in a Just World Scales

Please indicate how strongly you agree with each statement from 1 (strongly disagree) to 6 (strongly agree)

1. I believe that, by and large, I deserve what happens to me.
2. I am usually treated fairly.
3. I believe that I usually get what I deserve
4. Overall, events in my life are just.
5. In my life, injustice is the exception rather than the rule.
6. I believe that most of the things that happen in my life are fair.
7. I think that important decisions that are made concerning me are usually just.

Please indicate how strongly you agree with each statement from 1 (strongly disagree) to 6 (strongly agree)

1. I think basically the world is a just place.
2. I believe that, by and large, people get what they deserve.
3. I am confident that justice always prevails over injustice.
4. I am convinced that in the long run people will be compensated for injustices.
5. I firmly believe that injustices in all areas of life (e.g., professional, family, politics) are the exception rather than the rule.
6. I think people try to be fair when making important decisions.

Appendix D

Open-ended Responses: Guilt Likelihood

Categories:

Global- sufficient: A general statement claiming the evidence is sufficient/incriminating

Examples:

(P19): "yes Mr.s Paul just somewhat guilty about their problems"

Global- insufficient*:* A general statement claiming that the evidence is insufficient/there is not enough

Examples:

(P110): "There is no real evidence."

(P146): "There is not enough evidence against Paul. All are insufficient."

Physical (fingerprint/tire) – sufficient*:* Statements claiming that the physical evidence (i.e., fingerprints or tire tracks) are sufficient for conviction or incriminating

Physical (fingerprint/tire) – insufficient*:* Statements claiming that the physical evidence (i.e., fingerprints or tire tracks) are insufficient for conviction or unreliable

Examples:

(P74): "Because the fingerprint found was not his"

Eyewitness – insufficient*:* Mention of the eyewitness as an unreliable piece of evidence or not enough cause to believe the defendant is guilty – mention of lighting conditions in relation to eyewitness credibility

Examples

(P287): "eye witness could be wrong"

(P88): "I think the evidence is very weak in this case, and the eyewitness is not likely to be very reliable."

Eyewitness – sufficient: Mention of the eyewitness as an incriminating piece of evidence or cause to believe the defendant is guilty– mention of lighting conditions in relation to eyewitness credibility

Examples:

(P95): "I think he did it based on the eyewitness statement"

(P296): "There were unbiased eye witnesses present…"

Alibi – insufficient: Mention of the alibi as insufficient for proving the defendant's innocence/ unreliable evidence

Alibi – sufficient: Mention of the alibi as a sufficient piece of evidence that the defendant is innocent

Examples:

(P112): "His friend and co-worker said he was at work during the crime. Seems like a proper alibi."

(P108): "He has an alibi corroborated by a co-worker."

Victim not present sufficient: Mention of the victim's inability to testify (due to his medical condition) as contributing to the likelihood of the defendant's guilt

(P38): "Because the victim was not able to attend due to his medical condition."

Victim not present insufficient: Mention of the victim's inability to testify (due to his medical condition) as insufficient evidence

Extra causal: Extra casual factors are mentioned which people found to be incriminating pieces of evidence or contribute to the likelihood that he is guilty

Examples:

(P232): "as being a 25 years old, he could be involved in illegal activities…"

(P58): "He doesn't make a large wage and was fairly young. Since a bar included, he was probably drunk and assualted the other guy. No mention of time clock or cameras."

Extra exonerate: Other factors which people have identified as contributing to the likelihood that the defendant is innocent

Examples:

(P249): "…In addition, there were not any notes on the condition of Mr. Paul's vehicle--if he was in fact, involved in the accident, shouldn't there be evidence of impact on his vehicle?"

Other punishment: Responses which suggest an alternate punishment for the defendant (i.e. a fine)