Counterfactual Statements and Monetary Compensation in a Mock Judicial Context: Who Makes an Ideal Compensatory Juror?

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The present study examined the application of counterfactual thinking to the judicial system; specifically whether juror's personality and empathy predicted the amount of monetary victim compensation. Results indicated both Fantasy and Perspective-Taking were strongly correlated with both monetary compensation and counterfactual statement production, whereas Agreeableness was not. Finally, ten items within these two empathy subscales (comprising a Counterfactual Victim Compensation Scale) reliably predicted which participants would grant higher monetary rewards. Future research directions and applications to jury selection are discussed.

Keywords: Counterfactuals; Empathy; Jury; Monetary Compensation.

Introduction - Who makes an Ideal Compensatory Juror?

When faced with an adverse event, people often think of how things may have been different "if only" the antecedents leading to the event were different. This cognitive process is known as counterfactual thinking, wherein people create a hypothetical precedent to undo a less fortunate factual outcome1. Counterfactual literally means contrary to facts2, so an individual is motivated (especially under stress) to envision various scenarios of events that did not take place in an effort to derive meaning3 and avoid future harm from those events that took place4. A motor vehicle accident, for example, may be an opportunity where victims will think counterfactually. Victims may imagine different routes taken or different timing of traffic lights: "if only I hadn't taken that detour, I would not have been in that accident."

Whereas research on counterfactual thinking is abundant5, research has been limited with respect to the practical applications. The application of counterfactual thinking to the judicial process of monetary compensation in civil lawsuits6 is of relevance to the present study. Jurors are required to utilise

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1 Jasper, Barry & Christman (2008); Rafetseder & Perner (2010).
2 Roese (1997).
3 Kray, Galinsky & Markman (2007).
5 Alicke, Buckingham, Zell & Davis (2008); Roese (1997).
6 Colwell (2005); Daftary-Kapur & Berry (2010).

https://doi.org/10.30958/ajl.4.2.2
doi=10.30958/ajl.4.2.2
counterfactual thinking by recreating situations based on available evidence\textsuperscript{7}, which will have important implications for jury selection. We ask presently the extent to which a juror's personality and, more importantly, the degree of empathy would influence the amount of compensation believed suitable to award a wronged plaintiff.

### Counterfactual Thinking

In early conceptualizations, Mandel and Lehman\textsuperscript{8} found counterfactuals were closely related to preventability ascriptions, based on the perceived controllability of the events; people may perceive an event to be controllable if they can assign a direct cause to that event. They showed counterfactual thinking may illustrate cause/effect relations. Consider a vehicular accident that befalls an individual who elects to take a unique route as part of a daily drive. That individual is likely to process the accident as caused by the unordinary occurrence (the alternate route): "if only I had taken my regular route, then this accident would not have happened." Thus, people are inclined to assign causality to an unordinary event based on the way in which the events are processed. Moreover, individuals who have taken an alternate route resulting in an accident will be more likely to describe that event as preventable had they simply taken the regular route. In this way, they believe the cause of the accident resulted from the alternate route taken, and they may believe they had control over the outcome\textsuperscript{9}.

Many have noted the complexities of human cognition often involve the use of mental simulations, which contrast reality with a mental image of an alternative outcome, directly implicated in counterfactual thinking\textsuperscript{10} found that counterfactual thinking instills "a mental simulation mind-set" where the participant's consideration of alternative outcomes manifests itself behaviourally, further suggesting the plausibility that counterfactual thinking in a judicial system could be used in victim empathy and subsequent compensation.

Counterfactual research uncovers the importance of novel stimuli to the targeted event. When counterfactuals occur without conscious direction in response to spontaneous stimuli, they are termed automatic counterfactuals\textsuperscript{11}, empirically shown to occur more frequently with unexpected, unusual, or undesired outcomes\textsuperscript{12}. This perception of alternative adverse outcomes plays an important role in human affect. In fact, extensive research supports the idea that negative affect results from the generation of counterfactual statements to explain past negative events\textsuperscript{13}. For instance, Kahneman and Miller\textsuperscript{14} found that

\textsuperscript{7} Weiner et al. (1994); Winter & Greene (2007).
\textsuperscript{8} Mandel & Lehman (1996).
\textsuperscript{9} Petrocelli, Percy, Sherman, & Tormala (2011).
\textsuperscript{11} Roese (1997).
\textsuperscript{12} Kahneman & Miller (1986); Kahneman & Tversky (1982)
\textsuperscript{13} Roese (1997).
\textsuperscript{14} Kahneman & Miller (1986).
when imagined alternatives to an event were easier to construct, the resulting affective reaction was stronger. Further research on counterfactuals indicated that the presence of counterfactual cognitions influences both affective reactions and future judgments\textsuperscript{15}. In fact, counterfactual thoughts serve as emotional regulators that self-monitor affect, which may contribute to causal attributions such as regret or blame\textsuperscript{16}. Likewise, Miller and MacFarland\textsuperscript{17} found that processing information leading to causal attributions stimulates sympathy and victim compensation.

Past research attempted to explain judiciary actions, such as plaintiff damages, in terms of counterfactuals. McCloy and Byrne\textsuperscript{18} found that "stories with salient, mutable events evoked less sympathy for their portrayed victims, relative to control stories." The authors postulated that working memory tasks would interfere with the assessment of counterfactuals, resulting in decreased levels of victim sympathy. Conversely, Miller and McFarland\textsuperscript{19} found a link between counterfactuals and victim compensation, so that unusual actions would elicit greater victim sympathy and higher victim compensation. They suggested an increase in counterfactuals will elicit more victim sympathy. Similarly, Macrae and Milne\textsuperscript{20} found participants awarded more financial compensation to a victim when circumstances were preceded by exceptional events.

**Methods of Jury Selection**

Jury selection is a critical element within both civil and criminal trials. Current methods lack time-efficiency and require considerable effort. These factors intensify judicial costs and the time required to obtain a judicial hearing\textsuperscript{21}. One method to facilitate jury selection involves jury consultants, utilizing standardised procedures to determine trends in jury behaviour and stereotyping; however this route is costly, totalling $10,000 to $15,000 per trial\textsuperscript{22}. Indeed, it is more common for lawyers to utilise jury questionnaires to minimise jury selection costs. This method (while time-efficient and economical) allows lawyers to confirm desired characteristics in a juror without exorbitant consultant expenses. Relevant presently is the argument that researchers should empirically uncover links among behaviour, cognition, and outcomes on a particular questionnaire to make accurate predictions about prospective jurors. Specifically, personality and empathy are two psychological constructs showing promise.

\textsuperscript{15} Roese (1997); Taylor & Schneider (1989).
\textsuperscript{16} Alicke et al. (2008); Byrne & McEleney (2000).
\textsuperscript{17} Miller & MacFarland (1986).
\textsuperscript{18} McCloy & Byrne (2000) at 83.
\textsuperscript{19} Miller & McFarland (1986).
\textsuperscript{20} Macrae & Milne (1992).
\textsuperscript{21} Schniederjans & Hollcroft (2005).
\textsuperscript{22} Schniederjans & Hollcroft (2005).
The Role of Juror Empathy

Investigators currently describe the cognitive empathy process quantitatively and qualitatively, yielding comparable conclusions: empathy involves an interaction between emotional and cognitive processes. Davis broadly defines empathy as "the reactions of one individual to the observed experiences of another," and hypothesises that empathy involves four components, rather than a traditionally unitary construct. Each of the four constructs involves a degree of responsivity to interpersonal relationships based on cognitive or emotional reactivity. To this end, Davis developed the multidimensional Interpersonal Reactivity Index (IRI), consisting of four 7-item empathy subscales: Perspective-Taking and Fantasy Scale (both cognition-based) and both Empathic Concern and Personal Distress (both emotion-based). Perspective-Taking measures an individual's underlying ability to assume the psychological viewpoint of others. Fantasy identifies imaginative individuals who can transpose themselves into the feelings and actions of fictitious characters through media such as writing, film, and theatre. Empathetic Concern assesses the individual's concern for those who are less fortunate, and Personal Distress measures the individual's feelings of distress and anxiety in tense and anxiety-provoking situations. Most relevant presently are both Fantasy and Perspective-Taking. Fantasy is arguably important because the ability to fantasise has been shown to influence both emotional reactions and helping behaviour with a tendency towards more counterfactual thought, whereas Perspective-Taking involves the ability to adopt the psychological viewpoint of others. The ability to appreciate others' position is critical when considering victim compensation in a judicial context. In short, the IRI as an empathy measure may be useful for selecting jurors for civil trials.

The Five-Factor Model of Personality

Ideal jurors may also be identified by general personality traits. The Neuroticism-Extraversion-Openness Personality Inventory (NEO-PI) consists of five personality constructs: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Neuroticism identifies individuals who are highly anxious, temperamental, self-conscious, self-pitying, and emotional; Extraversion identifies people who are gregarious, talkative, fun-loving, and impulsive; Openness to Experience refers to individuals who are imaginative, creative, prefer variety, and curious; Agreeableness identifies those who are soft-hearted, trusting,
generous, and good-natured; Conscientiousness refers to people who are hard-working, well-organised, punctual, and ambitious.

**Present Study and Hypotheses**

The present study assessed general and empathic personality dimensions prior to exposure to a mock jury scenario. We measured both the number of counterfactual statements as well as the amount of victim compensation. We hypothesised (1) the volume of counterfactual thinking will be significantly related to monetary compensation; for example, that those who score higher on Fantasy, Perspective-Taking, and Agreeableness will be more likely to empathise with victims in a counterfactual vignette (based on the volume of counterfactual statements), and award greater monetary compensation. (2) Participants will assign greater monetary compensation when behaviour is preceded by an aberrant or atypical counterfactual event. We expected a link between Agreeableness and both Fantasy and Perspective-Taking.

**Method**

**Participants**

There were 73 females and 24 male undergraduate students recruited from an Introduction to Social Psychology course who participated for partial course credit.

**Materials and Procedure**

Participants completed the NEO-PI\(^{29}\) and the IRI\(^{30}\); both demonstrated adequate internal consistency and discriminant validity in cognitive and emotional reactions to empathy-related stimuli\(^{31}\). Item responses utilised a 5-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree). Rallings and Webster's\(^{32}\) evaluation of IRI retest reliability (after 2 weeks) was significant in each subscale, and internal consistency for each ranged from .71 to .77. A factor analysis demonstrated good internal consistency and retest reliability\(^{33}\). Participants read one of two versions of a vignette, differing by the depicted outcome. The 'counterfactual vignette' included a scenario wherein the victim's actions deviated from his normal behaviour (Appendix A), whereas the 'non-counterfactual vignette' did not (Appendix B). Students then responded to three questions in a written format:

\(^{29}\) Costa & McCrae (1995).
\(^{30}\) Davis (1983).
\(^{32}\) Rallings & Webster (2001).
\(^{33}\) Siu & Shek (2005).
(1) "As commonly occurs in such a situation, Pam often thought 'if only...' while she grieved for the loss of her husband. How do you think she continued this thought? Imagining you are Pam, please write one or more likely completions to the stem: "If only..." (2) "If you were Pam and were thinking about the cause of Robert's death, what would you think about? Please write one or more thoughts." (3) Participants were asked to allot a monetary compensation to the victim's family (Appendix C).

Upon completion of these questions, participants answered three manipulation checks to assess scenario comprehension and accuracy: (1) How many children do Robert and Pam have? (2) Who treated Robert? (3) What is Robert's medical history? Data from participants who responded correctly to the manipulation checks were included in the final analysis. Participants were then debriefed about the study's purpose and hypotheses.

Results

All participants answered the manipulation checks correctly, so none were excluded. Participants awarded the widow an average of $695,761 CDN in damages (n = 92, SD = $344,000; 5 missing cases). The mean number of counterfactual statements generated was 2.10 (SD = 1.54).

Subscale Reliabilities

The IRI subscales yielded high reliability. Internal consistency estimates for the Fantasy and Perspective-Taking Subscales were 0.90 and 0.91, respectively. The two other IRI subscales (Empathetic Concern and Personal Distress reliabilities (alpha = 0.78 and 0.64, respectively). Reliabilities for the five NEO-PI personality constructs warrant discussion. The Neuroticism, Extraversion, and Conscientiousness subscales demonstrated acceptable internal consistencies: 0.78, 0.80, and 0.81, respectively. An alpha of 0.73 was derived for Openness after items 8 and 38 were removed due to poor inter-item correlations. Agreeableness yielded a low but satisfactory internal consistency (alpha = 0.62) after Item-34 was excluded.

Correlation Analyses

The first hypothesis that participants able to generate more counterfactual statements would provide greater monetary compensation was supported (?). Specifically, participants who provided more counterfactual statements scored significantly higher on Perspective-Taking, r (95) = 0.330, p = 0.001; and Fantasy, r (95) = 0.396, p < 0.001; however, was no significant for Agreeableness, r (95) = 0.074, p = 0.473. Similarly, participants rewarding greater monetary compensation to the victim's widow in the 'counterfactual vignette' scored significantly higher for both Perspective-Taking, r (90) = 0.743, p < 0.001; and
Fantasy, $r(90) = 0.803$, $p < 0.001$; but was no significant for Agreeableness, $r(90) = 0.044$, $p = 0.680$.

It is important to recognise that the second hypothesis based on the type of vignette was not supported. Results indicate both the 'counterfactual' and 'no counterfactual' vignettes elicited high degrees of empathy with no significant difference in the amount of monetary compensation ($ps > .05$).

**Post-Hoc Analysis**

Upon further consideration of the IRI data, we recognised ten items within the scale delineating a highly reliable family of items (alpha = 0.95), herein identified as a Counterfactual Victim Compensation Scale (CVCS). The items and their corresponding strengths are found in Table 1. Higher scores on the CVCS were significantly associated with greater monetary compensation, $r(90) = 0.813$, $p < 0.001$. Likewise, higher scores on the CVCS were significantly associated with an increase in counterfactual statements, $r(95) = 0.373$, $p < 0.001$.

**Discussion**

We hypothesised that individuals who scored higher on the NEO-PI Agreeableness subscale would generate more "if only..." statements and award more monetary compensation in response to a counterfactual vignette. This hypothesis was not supported, which indicates that global measures of personality are not sufficient predictors of counterfactual thinking. One possible explanation for such results lies in the trait of Agreeableness. Although individuals scoring high on Agreeableness are likely to be soft-hearted, trusting, generous, and goodnatured, one might argue that the characteristics of an agreeable individual may present a conflict wherein s/he is forced to make a decision that is not favourable to all concerned. As such, attempts to please all parties may result in more medial compensation levels so as to not upset any one party. Additionally, the nature of the material within the vignette and its corresponding questions may have been a factor in the results. Being asked to place a monetary value on the compensation believed to be ideal for a victim's family could have been a sensitive issue for a number of participants. An agreeable participant may have been able to sympathise with both the physician and the victim of the vignette, thereby resulting in a lower level of monetary compensation for the family.

In addition, the type of vignette did not significantly affect the level of monetary compensation or the number of "if only..." statements generated. These findings, although not exactly parallel with past research, extend previous investigations on counterfactual thinking and victim compensation. As such, we found empathic individuals will generate more "if only" statements, regardless of the vignette type, suggesting the salience of the vignette's counterfactual event may not be a critical factor in the context of empathy. Perhaps individuals who are able to transpose themselves into another's

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suffering do not require a significantly salient event to bring forth feelings of empathy. Since those who score high on Fantasy or Perspective-Taking are able to easily generate a higher number of "if only" statements, these individuals may be more inclined to think counterfactually. Future research could manipulate the experimental vignettes to further investigate this question.

Davis\textsuperscript{35} maintains that the ability to fantasise is vital to empathy, and is shown to influence emotional reactions and helping. Likewise, being able to assume another's perspective is essential to empathy because it involves the ability to adopt the psychological viewpoint of others. A rather interesting subscale within the IRI (made up of both Fantasy and Perspective-Taking items) was identified as a reliable predictor of monetary compensation and the number of generated counterfactual statements. As discussed briefly in the post-hoc analysis, there are crucial implications for these results deriving from the Fantasy and Perspective Taking items. This ten-item scale appears to evaluate one's ability to spontaneously assume the viewpoint and emotions of others. An individual scoring high on the CVCS will be more apt to recognise the cognitive and emotional experiences produced by an adverse event, thereby allotting a greater monetary compensation to a victim of an adverse outcome. The CVCS has significant implications in jury selection. It should thus prove worthwhile to identify those who are essentially more empathetic to a plaintiff. With the current method of jury questionnaires used to identify ideal jurors, the CVCS can be administered to prospective jurors in order to identify those more likely to empathise with a victim. Through the use of this short ten-item survey, attorneys can target those who are more likely to generously compensate their client.

\textbf{APPENDIX A}

\textbf{Vignettes}

Robert Jones is 51 years old, the father of two and a grocery store owner. He has been happily married to his wife, Pam, for 26 years. Robert's family has a history of heart disease. Currently, Robert has been prescribed a new medication for his high blood pressure.

One afternoon after closing his store, Roert felt ill and decided he was in need of a doctor's opinion. His family physician, Dr. Smith, was on vacation that particular day. Robert had been a patient of Dr. Smith for countless years. In fact, Robert was reluctant to seek medical treatment from any other physician. However, Pam persuaded Robert to go elsewhere. So instead, Robert went to a walk-in-clinic near his home and saw Dr. Peters. Dr. Peters had previously never treated Robert. After listening to Robert's complaints about dizziness and a sore throat, Dr. Peters prescribed a medication to "fix" Robert's ailment. He was unaware of Robert's medical history and current medications.

\textsuperscript{35} Davis (1983).
After going home and taking the pills prescribed to him, Robert fell asleep. The medication caused an adverse reaction and he did not rise when Pam tried to wake him. Robert was in a coma for three days and died on the fourth day at the hospital. An autopsy revealed it was the mixture of medication that was the cause of his untimely death.

APPENDIX B

Robert Jones is 51 years old, the father of two and a grocery store owner. He has been happily married to his wife, Pam, for 26 years. Robert’s family has a history of heart disease. Currently, Robert has been prescribed a new medication for his high blood pressure.

One afternoon after closing his store, Robert felt ill and decided he was in need of a doctor's opinion. Robert had been a patient of Dr. Smith for countless years. In fact, Robert refused to seek medical treatment from any other physician. After listening to Robert's complaints about dizziness and a sore throat, Dr. Smith prescribed a medication to "fix" Robert's ailment.

After going home and taking the pills prescribed to him, Robert fell asleep. The medication caused an adverse reaction and he did not rise when Pam tried to wake him. Robert was in a coma for three days and died on the fourth day at the hospital. An autopsy revealed it was the mixture of medication that was the cause of his untimely death.

APPENDIX C

Imagine you are chosen to be part of a jury for the malpractice and wrongful death suit against Dr. Peters [or Dr. Smith for the other vignette]. Despite a weak line of evidence, you find Dr. Peters [or Dr. Smith] guilty of the charges against him. It is up to you, the jury, to recommend a likely compensation for Robert's grieving family. What do you believe is the ideal monetary compensation to reward his family? Please write a monetary value up to $1,000,000 in the space provided.

APPENDIX D

Table 1 Numerical Item Descriptions

(1) I daydream and fantasise, with some regularity, about things that might happen to me.
(5) I really get involved with the feelings of the characters in a novel.
(8) I try to look at everybody's side of a disagreement before I make a decision.
(11) I sometimes try to understand my friends better by imagining how things look from their perspective.
(16) After seeing a play or movie, I have felt as though I were one of the characters.
(21) I believe that there are two sides to every question and try to look at them both.
(23) When I watch a good movie, I can easily put myself in the place of a leading character.
(25) When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
(26) When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
(28) Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Table 1. Items on the Counterfactual Victim Compensation Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Subscale</th>
<th>Money r (90)</th>
<th>p</th>
<th>If Only r (95)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Fantasy</td>
<td>0.791**</td>
<td>&lt;0.0001</td>
<td>0.287**</td>
</tr>
<tr>
<td>(5)</td>
<td>Fantasy</td>
<td>0.671**</td>
<td>&lt;0.0001</td>
<td>0.418**</td>
</tr>
<tr>
<td>(8)</td>
<td>Perspective</td>
<td>0.613**</td>
<td>&lt;0.0001</td>
<td>0.209*</td>
</tr>
<tr>
<td>(11)</td>
<td>Perspective</td>
<td>0.620**</td>
<td>&lt;0.0001</td>
<td>0.179</td>
</tr>
<tr>
<td>(16)</td>
<td>Fantasy</td>
<td>0.742**</td>
<td>&lt;0.0001</td>
<td>0.350**</td>
</tr>
<tr>
<td>(21)</td>
<td>Perspective</td>
<td>0.625**</td>
<td>&lt;0.0001</td>
<td>0.270**</td>
</tr>
<tr>
<td>(23)</td>
<td>Fantasy</td>
<td>0.633**</td>
<td>&lt;0.0001</td>
<td>0.390**</td>
</tr>
<tr>
<td>(25)</td>
<td>Perspective</td>
<td>0.666**</td>
<td>&lt;0.0001</td>
<td>0.345**</td>
</tr>
<tr>
<td>(26)</td>
<td>Fantasy</td>
<td>0.693**</td>
<td>&lt;0.0001</td>
<td>0.360**</td>
</tr>
<tr>
<td>(28)</td>
<td>Perspective</td>
<td>0.732**</td>
<td>&lt;0.0001</td>
<td>0.289**</td>
</tr>
</tbody>
</table>

NOTE: Items numbered in accordance to their appearance on the Interpersonal Reactivity Index. *Significant at the 0.05 level (2-tailed). **Significant at the 0.01 level (2-tailed). See Appendix D for numerical item descriptions.

References


