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To cite this article: Dana Weimann-Saks, Inbal Peleg-Koriat & Eran Halperin (2019) The Effect of Malleability Beliefs and Emotions on Legal Decision Making, Justice System Journal, 40:1, 21-38, DOI: 10.1080/0098261X.2019.1590264

To link to this article: https://doi.org/10.1080/0098261X.2019.1590264

Published online: 05 Apr 2019.

Article views: 52

View Crossmark data
The Effect of Malleability Beliefs and Emotions on Legal Decision Making

Dana Weimann-Saks, Inbal Peleg-Koriata, and Eran Halperin

Abstract

For decades, legal formalism has held that judicial sentencing decisions should be guided by facts, not subjective variables. However, scholars and legal practitioners have long been aware of the influence of psychological factors on legal decision making. In this article we report on two studies that examined a model suggesting that belief in malleability (a belief that people's personalities change and develop) is correlated with the severity assessment of a defendant's criminal behavior. We also examined whether this relationship is mediated by negative and positive emotions. Our analysis revealed that believing in malleability reduces the likelihood of viewing the defendant's traits as fixed, which leads to more compassionate legal assessment. Additionally, our results indicate that the mechanism underlying the relationship between a belief in malleability and judicial assessment is emotional. We discuss the theoretical and practical implications of our findings with an eye on the literature on law and psychology and implicit beliefs.

Keywords

Malleability; decision making; incremental theory; entity theory; emotions

Legal formalism holds that judicial decision-making applies legal reasons to the facts of a case in a rational, mechanistic, and deliberate manner (Leiter 2005; Neuborne 1992). Traditionally, law is thought to be based on reason (Bandes 1999). The dominant image of the judicial authority is of dispassionate attention, and its associated performance is required to be affectively neutral. These qualities are considered essential for performing and communicating the central legal values of neutrality and impartiality (Mack and Roach Anleu 2010; Wettergren 2010).

However, research over the years shows that it is human to make irrational decisions (e.g., Englich, Mussweiler, and Strack 2006; Kahneman and Tversky 1982). For example, implicit biases (unconscious mental processes based on implicit attitudes or implicit stereotypes) often play an unnoticed role in day-to-day decision making (Greenwald and Krieger 2006). Greenwald and Krieger (2006) also found that numerous implicit mental processes function outside a person’s conscious focus of attention, including implicit memories, implicit perceptions, implicit attitudes, implicit stereotypes, implicit self-esteem, and implicit self-concept. Additionally, Kahneman and Tversky (1979) identified a range of heuristics that decision makers use to make judgments that show biases resulting from use of such intuitive heuristics.

Accordingly, legal realists argue that the rational application of legal reasons does not sufficiently explain the decisions of judges and other decision makers in the legal arena, and that psychological, political, and social factors can influence judicial rulings (Danziger, Levav, and Avnaim-Pesso 2011). Several studies have dealt with the role of extralegal factors on legal decision making (Frank 1949; Guthrie, Rachlinski, and Wistrich 2000; Kelman, Rottenstreich, and Tversky

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1996; Kip Viscusi 1999; Rachlinski, Wistrich, and Guthrie 2013). For example, Ayres and Waldfogel (1994) found that judges set bail at amounts that were 25 percent higher for black defendants than for similarly situated white defendants. Depew, Eren, and Mocan (2017) found evidence of negative racial ingroup bias in judgments. Juveniles who are randomly assigned to same-race judges are more likely to be incarcerated and receive longer sentences. A study recently conducted in Israel found that the ethnic composition of district court panels has an impact on the outcome of sentencing appeals. Thus Arab defendants are more likely to win their appeals when the panel includes at least one Arab judge (Grossman, Gazal-Ayal, Pimentel, and Weinstein 2016). Other studies have shown that judges’ political orientation also influences their judgment (Epstein, Landes, and Posner 2013), and researchers have also found that judges’ affinity to their children influences their vote, whereby judges who have daughters consistently vote in a more feminist way on gender issues (Glynn and Sen 2015).

Moreover, in recent years, a significant number of legal decisions are being made by other legal actors, not only judges. Numerous studies have revealed that in the criminal justice system, adjudication by trial and judgment is a rare event (Eisenberg and Lanvers 2009; Rakoff 2014; Redlich and Shteynberg 2016). In most cases, judges focus more on case management and plea bargain promotion. In fact, only a fraction of charges conclude with a full trial. For example, in Israel’s criminal justice system, after the police make an arrest, prosecutors decide whether to press charges. If a defendant is charged, they can negotiate a plea bargain with the prosecutor (Gazal-Ayal, Turjeman, and Fishman 2013). So, in fact, the power to determine the terms of the plea bargain rests largely in the hands of the prosecutor and defense counsel, while the judge’s role is minor. Therefore, given that a significant number of legal decisions are made by other legal actors, not only judges, it is important to examine a generic decision-making process that applies to judges as well as other legal actors.

As noted above, it seems there are numerous factors that can, both consciously and unconsciously, influence judges, prosecutors, and other legal decision-makers. In the present research we propose that a person’s implicit theories concerning other people, namely, their subjective beliefs on whether people’s attitudes and behaviors are malleable (incremental theory) or fixed (entity theory; Dweck, Chiu, and Hong 1995; Hong et al. 1999), play an important role in decision making in the legal context.

The Effect of Malleability Beliefs on Decision Making in the Legal Context

Dweck, Chiu, and Hong (1995) suggested that there are two assumptions people make about the malleability of personal character traits; they may believe that personal character traits are fixed and nonmalleable (entity theory), or they may believe that they are malleable and can be changed and developed (incremental theory). A variety of studies from different disciplines found that malleability (incremental) beliefs about people, namely, belief that people’s personalities can change, are associated with a lower likelihood of making stereotypical judgments (Levy, Stroessner, and Dweck 1998; Plaks et al. 2001; Rydell et al. 2007), a lower likelihood of displaying aggression toward others (Chiu, Dweck, Tong, and Fu 1997; Yeager, Trzesniewski, and Dweck 2013), reduced negative reactions to social adversity (Yeager et al. 2014), and a lower likelihood of recommending punishment and retaliation for others’ wrongdoing.

Additionally, malleability beliefs were found to be correlated with people’s tendency to attribute negative or positive behavior to the dynamics of behavior, including the situational context, whereas fixedness beliefs were found to be correlated with people’s tendency to attribute negative or positive behavior to permanent traits (Bastian and Haslam 2008; Dweck, Chiu, and Hong 1995; Hoyt and Burnette 2013). In light of the above, it appears that people with malleability beliefs are more likely to focus on the entire picture and take into account the possibility that current behavior does not necessarily predict future behavior. For example, Erdley and Dweck...
(1993) found that students with fixedness beliefs (more so than students with malleability beliefs) predicted that a child who tends to invent lies in order to establish a good first impression will also be a troublemaker in the future. Heyman and Dweck (1998) found that the belief that people’s psychological traits are stable is associated with a tendency to make judgments of oneself and others on the basis of extremely limited evidence. For example, in evaluating negative behavior, children with entity theories (belief in trait stability) labeled a person as “bad” or “good,” while incremental theorists considered contextual factors such as intentions.

Different beliefs about people’s ability to change can lead to different reactions to people’s negative social behavior. People with malleability beliefs are expected to offer constructive solutions that involve steps to alter negative motivations or situations, e.g., education or negotiation. However, for people who understand wrongdoing as emanating from fixed traits (wrongdoers are bad people), punishment and retaliation are the favored responses, given the trait judgments they have made of the target (Dweck, Chiu, and Hong 1995; Halperin et al. 2011); although punishment cannot change them, it can perhaps act as a deterrent (Dweck, Chiu, and Hong 1995).

Although, as far as we know, no studies have previously tested directly and empirically the association between malleability beliefs and legal assessment, a handful of studies conducted in the context of legal issues provided some initial support for these ideas. For example, Maruna and King (2009) found that belief in redeemability is associated with a reduced likelihood of supporting punitive policies. Tam et al. (2013) found that beliefs about the immutability of moral character are associated with public attitudes toward punishment and rehabilitation. People with fixedness beliefs made more internal attribution ofcriminal behavior, which in turn led to stronger punitive tendencies. Rade, Desmarais, and Burnette (2017) found that growth mindsets (incremental theories) predicted more positive attitudes toward ex-offenders, which in turn predicted greater public support for reentry initiatives.

These findings provide preliminary evidence of the association between belief in malleability and public attitudes toward punitiveness. The present research adds to the existing literature by simulating a decision-making process, rather than by testing more general, hypothetical support for certain policies. To this end, we presented a legal dilemma based on a real legal proceeding conducted in the District Court of Israel, and we instructed the participants (all with legal education) to make a realistic legal assessment. While the relationship between a general belief in malleability and a general attitude toward punitiveness is quite obvious (and this has been found in previous studies), its application to concrete decisions is more significant and complex.

Applying the above findings to the punitiveness context, we argue that if a person (facing a legal decision) believes that people in general can change, they will apply this belief to a specific defendant and will strive harder to help them change their behavior or address the underlying problems that caused the violation. In other words, the decision maker will adopt a more therapeutic approach to criminal law (e.g., rehabilitation, restoration, and reconciliation). On the other hand, if a person (facing a legal decision) does not believe change is possible, the only reasonable response is to adopt a “retributionist” approach and severely punish the defendant in order to achieve the punitive goals of criminal law (e.g., retribution, deterrence, expressive justice). 1 Thus we hypothesized that a general belief in malleability (versus fixedness) will reduce the appraisal that a specific defendant’s character traits are fixed, and, as a result, in line with the findings of Dweck, Chiu, and Hong (1995) and Tam et al. (2013), severe punishment and maximum retaliation will not be the favored responses. We also hypothesized that this effect would be mediated by an affective process, proposing for the first time that negative and positive emotions constitute the underlying mechanism explaining the hypothesized effects.

1It is important to note that in the past several years, the mainstream criminal system has lost its monopoly on regulating criminal behavior due to frustration and criticism against the criminal process. In order to provide better processes and to expand the goals of substantive criminal law (retribution, deterrence, expressive justice, rehabilitation, restoration, and reconciliation), an alternative discourse has emerged (Dancig-Rosenberg and Tali 2014).
The Mediating Role of Emotions

According to appraisal theories of emotions, emotions and cognition are inseparable. Consequently, a person’s interpretations (appraisals) of the environment or situation can produce or change emotions (Ellsworth and Scherer 2003). Hence, reappraisal can lead to induced changes in emotion (Ellsworth and Dougherty 2016; Ellsworth and Scherer 2003). In line with the appraisal theory of emotions, the present research also suggests that a different appraisal regarding the defendant’s ability to change will lead to a different emotional response, which in turn will influence the decision.

Numerous studies have examined how implicit theories predict emotional experience within various realms of functioning. Researchers have found that a fixed mindset is predictive of negative emotional experience, suggesting the possibility that cultivation of an incremental mindset is a route toward optimal emotional experience (Burnette et al. 2013; Schleider, Abel, and Weisz 2015; Yeager et al. 2014). Other studies found that people who hold a fixed mindset display more negative reactions to social adversities such as exclusion (Yeager and Dweck 2012), react to social exclusion by feeling worse about themselves (Rudolph 2010; Yeager et al. 2011), and make more self-blaming attributions (Erdley and Dweck 1993).

Furthermore, experimental studies have shown that teaching an incremental theory of personality and growth mindset reduces negative reactions to social adversity, including shame and hatred, and, as a result, people are less likely to desire revenge (Yeager and Dweck 2012; Yeager et al. 2011; Yeager et al. 2013). Additionally, some research on implicit theories about groups has found that incremental theories are associated with increased hope and decreased hatred; both of these emotions are based on an appraisal of the target’s ability (or inability) to change (Cohen-Chen et al. 2014; Halperin 2008; Halperin and Gross 2011). In sum, implicit theories have already been shown to play an important role in increased positive emotions and decreased negative emotions. Thus we hypothesized that in the legal context as well, belief in malleability will lead to increased positive emotions and decreased negative emotions toward the defendant.

Several decades of research have made it clear that emotions influence conflict resolution in interpersonal conflict and negotiation (Van Kleef, De Dreu, and Manstead 2010). Research on interpersonal conflict resolution has demonstrated that positive affect can reduce hostility and increase creative problem-solving in negotiation contexts (Baron 1990; Carnevale and Isen 1986). However, until recently, in the legal context, the prevailing view was that judges and other legal decision makers had to put their feelings aside (Ellsworth and Dougherty 2016) because emotions are “incapable of establishing the truth of conclusions” (McClurg 1992, 66). In recent years, researchers and jurists have begun to realize that emotions cannot and should not be excluded from legal thought (Ellsworth and Dougherty 2016; Maroney 2006). Therefore, studies have begun to examine the effect of emotion on judges’, jurors’, and lawyers’ discretion. Wistrich, Rachlinski, and Guthrie (2014) have shown that emotional reactions to litigants may influence the judge’s decisions in civil and criminal cases. Bodenhausen, Kramer, and Süsser (1994) found that jurors who were in a good mood were more affected by stereotypes than jurors in a neutral mood, and Semmler and Brewer (2002) have shown that unhappy jurors are more likely to attend to details of evidence and to inconsistencies in the testimony. Bright and Goodman-Delahunty (2006) have shown that presenting gruesome photographs to the jury leads to negative feelings (e.g., anger) and increases the percentage of convictions. Therefore, we also hypothesized that the more positive emotions the participant has toward the defendant, their legal assessment will be less severe, and the more negative emotions they have, their legal assessment will be more severe.

Overview of the Present Research

The goal of the present research is to test the hypothesis that a general belief in malleability will reduce the appraisal that a specific defendant’s traits are fixed, and, as a result, in line with the
findings of Dweck, Chiu, and Hong (1995), the assessment of the defendant’s criminal behavior will be less severe (H1). Additionally, we explored the hypothesis that the mechanism explaining the relationship between belief in malleability and assessment of the severity of the criminal behavior is emotional (H2).

The hypotheses were tested across two studies. In Study 1, to test the first hypothesis, we examined the correlation between general malleability beliefs (general malleability) and malleability beliefs about a specific defendant (case-specific malleability) and assessment of the severity of the defendant’s criminal behavior (severity assessment). To explore the mediating role of case-specific malleability and emotions in the relationship between general malleability and severity assessment, a serial mediation model was conducted. In Study 2, we replicated Study 1 with some adjustments to address its limitations, as detailed below.

**Study 1**

Study 1 was designed to preliminarily examine whether a general belief in human malleability is correlated with a less severe assessment of a defendant’s criminal behavior, mediated by a specific belief in a specific defendant’s malleability and positive and negative emotions. To this end, law student participants read a criminal case summary and a sentencing arguments transcript, and then completed a series of questionnaires. The basic text came in three versions, differing in specific aspects of the text: a transcript that emphasized the belief that people’s characteristics are malleable, a transcript that emphasized the belief that people’s characteristics are fixed, and a transcript that did not mention belief in malleability. Since no statistically significant effect was revealed on manipulation check in the general malleability variable (i.e., our ultimate manipulated variable) based on the transcript version, $F(2, 177) = 0.368, p > .05$; partial $\eta^2 = .004$, we collapsed the data across the three conditions and treated the design as correlational.

**Method**

**Participants**

One hundred and eighty students from the Faculties of Law at Tel Aviv University and the University of Haifa (49 men and 131 women) took part in the study. Ages ranged from 19 to 78 years ($M = 26.58$, $SD = 6.84$). Most of the participants were Jewish (90.5%), nonreligious (84.4%), and single (87.2%) (see Table 1).

**Procedure**

The participants read a criminal case summary and a sentencing arguments transcript in their classrooms, and then completed a set of questionnaires. They were instructed to think like legal decision makers and to make a considered and calculated decision that could affect the defendant’s future. The survey was conducted anonymously, and the response time was about 20 minutes. After completing the questionnaires, the participants were asked to provide (on a separate page) their personal details in order to participate in a lottery in which one participant from the entire sample would receive a NIS 500 voucher (about $145). Approval for this study was granted by the Institutional Ethics Committee at the Interdisciplinary Center (IDC) Herzliya.

**Materials**

The case presented in the transcript was based on legal proceedings that took place in the District Court of Israel. The transcript described a summary of the sentencing arguments that
were heard after the defendant was convicted of manslaughter and drunk driving. The defendant was driving home from a party; he was drunk and caused a car accident in which one of his friends was killed and another was injured. The defendant sustained minor injuries as well. The defendant was charged with causing death by driving under the influence of alcohol. The rationale for choosing this offense (drunk driving and causing death) was based on our wish to give the participants a case they would find of interest and relevant to their lives, and a case whose facts implied the kind of issues that might be generalizable to a number of other cases. Therefore, we chose an offense that is, on the one hand, serious and classified in Israeli law as a crime (maximum penalty of more than three years), and, on the other, is not limited to a specific sector of the population. After reading the highlights of the case and the sentencing arguments, the participants responded to the following questionnaires:

**Independent Variable.** To assess malleability beliefs about people (general malleability), we used a 4-item scale (α = .82) (rated from 1, strongly disagree, to 6, strongly agree) based on the scale used by Chiu, Tong, Dweck, and Fu (1997) with some very minor adjustments. The participants were asked to indicate to what extent they agree with the four statements regarding people in general, with no items mentioning the legal context or the specific defendant (e.g., “As much as I hate to admit it, you can’t really change people’s basic characteristics”; “People can do things differently, but the important parts of who they are can’t really be changed”; “People who are characterized by violent tendencies will never change their ways”; and “Every man or woman has basic moral values and beliefs that can’t be changed significantly”).

**Mediating Variables.** To assess malleability beliefs about the defendant (case-specific malleability), we used a 10-item scale (α = .76) (rated from 1 = strongly disagree to 6 = strongly agree). Three of the ten items (items 5, 6, and 7) were eliminated due to low loading coefficients (see Table 2). The participants were asked to indicate to what extent they agree with the ten statements regarding the defendant (e.g., “I believe that the defendant will not change”; “The probability that the defendant will be a different person in the future is very low”).

To assess levels of positive emotions toward the defendant, we used a set of two sub-questionnaires (nine items in total) representing two positive emotions: empathy (e.g., “I feel empathy toward the defendant”) and compassion (e.g., “I feel sorry for the defendant”). All the items appeared on a 6-point Likert scale rated from 1 = strongly disagree to 6 = strongly agree. We computed a positive emotion score based on the entire set (α = .87).

To assess levels of negative emotions toward the defendant, we used a set of three sub-questionnaires (nine items in total) representing three negative emotions: anger (e.g., “The defendant’s
behavior makes me angry”), hate (e.g., “I feel strong hatred for the defendant”), and contempt (e.g., “I feel contempt for the defendant”). All the items were located on a 6-point Likert scale rated from 1 = strongly disagree to 6 = strongly agree. We computed a negative emotion score based on the entire set ($\alpha = .71$).

**Dependent Variable.** To assess the participant’s perception of the severity of the criminal behavior and the appropriate punishment (severity assessment), we used a 3-item scale ($\alpha = .61$). The participants were asked to answer three questions on a 1–7 scale, 1 being the lowest assessment (e.g., “In your opinion, how serious is the offense committed by the defendant?”, “In your opinion, to what extent is the defendant guilty of causing the accident?”; “In your opinion, what is the severity of the punishment that should be imposed on the defendant?”).

**Preliminary Analysis**

Table 1 presents descriptive statistics of the participants’ characteristics and the study variables. It is interesting to note that the participants in this study reported lower levels of negative emotions than positive ones. Additionally, as shown in Table 1, they reported lower levels of general malleability than case-specific malleability. Another interesting finding, before testing the hypotheses, is that the level of severity assessment was relatively high (5.82 on a 1–7 scale).

**Factor Analysis**

Fourteen items were used in the present study to examine malleability. To examine whether there are clusters or subscales within these 14 items, factor analysis (a principal component analysis method—PCA) was employed. Since we assumed independence across the components, varimax orthogonal rotation was used. The analysis revealed two components (based on the criterion of e.v. <1). After rotation, the first component, “case-specific malleability” (including items 1–4), explained 24.32% of the variance. A second component, “general malleability” (including items 8–14), explained an additional 22.75 percent of the variance. The two components explained 47.07 percent of the variance. Three items (items 5–7) were eliminated due to low loading coefficients. The loadings after the orthogonal rotation are presented in Table 2.

### Table 2. Loadings of the malleability variables on the cm variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Case-specific malleability</th>
<th>General malleability</th>
</tr>
</thead>
<tbody>
<tr>
<td>As hard to admit, it is impossible to change people’s basic character traits</td>
<td>.755</td>
<td></td>
</tr>
<tr>
<td>People with radical and violent characteristics will never change, because these characteristics are deeply embedded in them</td>
<td>.765</td>
<td></td>
</tr>
<tr>
<td>People can sometimes change their behavior outwardly, but they cannot change who they really are</td>
<td>.859</td>
<td></td>
</tr>
<tr>
<td>Every person has fixed values and beliefs, which cannot be changed significantly</td>
<td>.678</td>
<td></td>
</tr>
<tr>
<td>I learned from the text that every person should be given a chance</td>
<td>.189</td>
<td></td>
</tr>
<tr>
<td>I understood from the text that it is very difficult to get people to learn from mistakes</td>
<td>.198</td>
<td></td>
</tr>
<tr>
<td>In the text I read it is clear that people can change</td>
<td>.207</td>
<td></td>
</tr>
<tr>
<td>I think there is a low chance that people like the defendant will change in the future</td>
<td>.566</td>
<td></td>
</tr>
<tr>
<td>I do not think the defendant can rehabilitate himself</td>
<td>.781</td>
<td></td>
</tr>
<tr>
<td>I believe that the defendant will not change</td>
<td>.800</td>
<td></td>
</tr>
<tr>
<td>I believe that the defendant has a chance to return to normative life</td>
<td>.439</td>
<td></td>
</tr>
<tr>
<td>The chances of the defendant changing are very small</td>
<td>.748</td>
<td></td>
</tr>
<tr>
<td>The defendant is a bad person by nature</td>
<td>.701</td>
<td></td>
</tr>
<tr>
<td>The defendant is an immoral person</td>
<td>.681</td>
<td></td>
</tr>
</tbody>
</table>
Eighteen items were used in the present study to examine the participants’ attitudes toward the case they read and the defendant. To examine whether there are clusters or subscales within these 18 items, factor analysis (a principal component analysis method – PCA) was employed. Since we assumed independence across the components, Varimax orthogonal rotation was used. The analysis revealed two components (based on the criterion of e.v. <1). After rotation, the first component, “positive emotions,” included the measured items empathy and compassion and explained 32.15 percent of the variance. The second component, “negative emotions,” included the measured items, hate, contempt, and anger and explained an additional 26.50 percent of the variance. The two components explained 58.65 percent of the variance. The loadings after the orthogonal rotation are presented in Table 3.

**Table 3. Loadings of the emotions variables on the components after rotation.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Positive emotions</th>
<th>Negative emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy 1</td>
<td>.747</td>
<td></td>
</tr>
<tr>
<td>Empathy 2</td>
<td>.804</td>
<td></td>
</tr>
<tr>
<td>Empathy 4</td>
<td>.827</td>
<td></td>
</tr>
<tr>
<td>Empathy 5</td>
<td>.831</td>
<td></td>
</tr>
<tr>
<td>Empathy 6</td>
<td>.829</td>
<td></td>
</tr>
<tr>
<td>Compassion 1</td>
<td>.753</td>
<td></td>
</tr>
<tr>
<td>Compassion 2</td>
<td>.719</td>
<td></td>
</tr>
<tr>
<td>Empathy 7</td>
<td>.806</td>
<td></td>
</tr>
<tr>
<td>Compassion 3</td>
<td>.741</td>
<td></td>
</tr>
<tr>
<td>Anger 1</td>
<td>.634</td>
<td>.449</td>
</tr>
<tr>
<td>Contempt 1</td>
<td>.848</td>
<td></td>
</tr>
<tr>
<td>Contempt 2</td>
<td>.752</td>
<td></td>
</tr>
<tr>
<td>Hate 1</td>
<td>.846</td>
<td></td>
</tr>
<tr>
<td>Hate 2</td>
<td>.743</td>
<td></td>
</tr>
<tr>
<td>Anger 3</td>
<td>.632</td>
<td></td>
</tr>
<tr>
<td>Hate 3</td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>Contempt 3</td>
<td>.720</td>
<td></td>
</tr>
</tbody>
</table>

Results and Discussion

**Correlation between Malleability, Emotions, and Severity Assessment**

To test Hypothesis 1, we computed Pearson correlations between the research variables. Table 4 presents the correlations between malleability, emotions, and severity assessment.

The correlations between the studied variables were all significant. A negative significant correlation was found between general malleability and severity assessment of the defendant’s criminal behavior. The stronger the participant’s belief in general malleability, the less severe their adjudication. A positive significant correlation was found between general malleability and case-specific malleability. The stronger the participant’s belief in general malleability, the greater their belief in the malleability of the specific defendant presented in the legal case. A positive significant correlation was also found between case-specific malleability and positive emotions, and a negative correlation was found between case-specific malleability and negative emotions. In other words, the stronger the participant’s belief in the malleability of a specific defendant, they had more positive emotions and fewer negative emotions toward them. Moreover, a negative significant correlation was found between positive emotions and severity assessment, and a positive correlation was indicated between negative emotions and severity assessment. This means that the more positive emotions the participant had toward the defendant, the less severe their
criminal behavioral assessment and the more negative emotions they had, the more severe their criminal behavioral assessment.

### Mediation Model

To examine the mediating role of case-specific malleability and emotions in the relationship between general malleability and severity assessment (Hypothesis 2), we used Hayes (2013) PROCESS bootstrapping command with 5,000 iterations (Model 6). The analysis treated general malleability as a predictor variable, case-specific malleability as the first mediator, positive/negative emotions in parallel as the second mediators, and severity assessment as the dependent variable. Results showed that the 95 percent confidence interval for the indirect effect of general malleability on severity assessment through case-specific malleability and positive emotions did not include 0 (95% CI [-.007, -.012]) with 5,000 resamples. Moreover, results also showed that the 95 percent confidence interval for the indirect effect of general malleability on severity assessment through case-specific malleability and negative emotions did not include 0 (95% CI [-.104, -.028]) with 5,000 resamples, $F(4,175) = 11.20$, $p < .01$, $p < .001$, .20). In other words, a two-path serial mediation was found: one pathway passes through case-specific malleability and positive emotions, and the other through case-specific malleability and negative emotions. These two paths were found to be significant. All the other optional paths between general malleability and severity assessment were not found to be significant. In other words, we examined two alternative models that can be theoretically justified and tested whether they can explain the correlations between the research variables, emotions as the first mediator, and general malleability as the second (95% CI [-.367, .618]) with 5,000 resamples, $F(4,175) = 1.29$, $p > .05$), or emotions as the independent variable, and general malleability as the mediator (95% CI [-.680, .447]) with 5,000 resamples, $F(2,170) = 2.92$, $p > .05$), and only the proposed model was found to be significant. The model indicates indirect effects of general malleability on severity assessment (see Figure 1).

These findings support our hypothesis that general belief in human malleability is correlated with a less severe assessment of the defendant’s criminal behavior and is mediated by a specific belief in a specific defendant’s malleability and positive and negative emotions. The present study has a few limitations that call for further research. First, the participants in the study were law students, not professional legal decision makers. Second, the participants read a case transcript.
before answering self-report measures about general and case-specific malleability beliefs and their emotions toward the defendant; this methodology may have affected participant responses to the dependent variable by priming certain beliefs about malleability. Third, we used a single case transcript, which may reduce the generalizability of the study findings. A second study should examine a different and unambiguous scenario involving an offense that is more within the defendant’s control and a victim who is not at fault. Our goal in Study 2 was to reinforce the findings of Study 1 by addressing the above limitations.

**Study 2**

This study was conducted with the two following purposes in mind: (1) to enhance the validity of our findings by testing the research model in a different setting (a different offense, no fault of the victim, no contributory negligence, a more professional sample); and (2) to examine whether the findings of Study 1 were biased by a priming effect resulting from reading the legal scenario immediately prior to responding to the questionnaires.

Regarding the first purpose, in Study 2 the participants were professional lawyers, the transcript presented a different offense to the one presented in Study 1, and the victim was innocent and did not contribute to the outcome.

As for our second purpose, to overcome the concern of a potential priming effect, the participants completed the general malleability questionnaire one week before reading the legal scenario and responding to the additional questionnaires.

**Method**

**Participants**

One hundred and ten lawyers (39 men and 71 women) took part in the study (eight participants were excluded from the study because they did not respond to the questionnaire until the end). The sample of respondents was obtained from an online panel by Midgam Project Web Panel, a company that specializes in providing infrastructure services for internet research. Participants sign up to the panel and get paid for their participation (8.5 NIS for this study). The method of stratified sampling was used, based on data published by the Central Bureau of Statistics. In this study, participants’ ages ranged from 22 to 66 years ($M = 36.45$, $SD = 8.61$). All the participants were Jewish, most of them nonreligious (79.9%) and married (66.4%); 70 percent of the participants work as lawyers (we did not ask for more information about their professional expertise) (see Table 1).
**Procedure**

The present study was carried out in two separate waves. In the first wave, all the participants completed a questionnaire that examined general malleability (the independent variable). In the second wave, conducted a week after the first, the participants read a criminal case summary and a sentencing arguments transcript, and then completed a set of questionnaires that was identical to the set used in Study 1, but without the questionnaire that examined the dependent variable (general malleability), which they completed in the first wave.

The survey was conducted anonymously, and the response time was about 20 minutes. Approval for this study was granted by the Institutional Ethics Committee at the Interdisciplinary Center (IDC) Herzliya.

**Materials**

**First wave**

*Independent Variable.* To assess belief in people’s malleability (*general malleability*), we used the general malleability questionnaire used in Study 1 ($\alpha = .77$).

**Second wave**

The case presented in the transcript was based on legal proceedings that took place in the District Court of Israel. The transcript provided a summary of the sentencing arguments that were heard after a conviction in an offense of aggravated assault. The assault took place in a dance club. The defendant, who was present at the club, entered into an argument over a trivial matter with the victim, who was also present at the club. In the course of this argument the defendant acted with excessive aggression toward the victim, from blocking his exit out of the club, to picking up a broken bottle, running toward the victim, and waving the broken bottle at him. When the defendant drew closer to the victim, he stabbed him in the shoulder. The victim responded immediately by drawing his firearm, which he carries legally in his capacity as a police officer and kicked the defendant in the face, thus stopping him from using the sharp bottle.

The rationale for choosing the above offense was based on our desire to enhance the study’s internal validity. In Study 1, the offense described in the transcript was one with which all the participants could identify to a certain degree (driving after consuming alcohol), and a victim who may be guilty of contributory negligence (knowingly getting into a car with a drunk driver). This raises concerns that the case described in Study 1 was too close and relevant to the participants’ lives, and they could easily identify with it. However, judicial decisions are made even in circumstances that are less relevant to the life of the judges; therefore, in the present study, it was important to describe different circumstances. Thus in Study 2 we chose an offense with which it was less likely that the participants would identify an innocent victim and no contributory negligence.

After reading the highlights of the case and the sentencing arguments, the participants responded to the following questionnaires:

*Mediating Variables.* To assess malleability belief about the defendant (*case-specific malleability*), we used the case-specific malleability questionnaire used in Study 1 ($\alpha = .84$). To assess levels of *positive emotions* toward the defendant, we used the positive emotions questionnaire used in Study 1 ($\alpha = .89$). To assess levels of *negative emotions* toward the defendant, we used the negative emotions questionnaire used in Study 1 ($\alpha = .88$).

*Dependent Variable.* To assess the participants’ perception of the severity of the criminal behavior and the appropriate punishment (*severity assessment*), we used the severity questionnaire used in Study 1 ($\alpha = .63$).
Preliminary Analysis

Table 1 presents descriptive statistics of the participants’ characteristics and the study variables. It is interesting to note that contrary to Study 1, the participants in this study reported higher levels of negative emotions than positive ones. Another interesting finding, before testing the hypotheses, is that as in Study 1, the level of severity assessment was relatively high (5.57 on a 1–7 scale).

Results and Discussion

Correlation between Malleability, Emotions, and Severity Assessment

To test Hypothesis 1, we calculated the Pearson correlations between the research variables. Table 5 presents the correlations between general malleability, case-specific malleability, emotions, and severity assessment. As Table 5 shows, a positive correlation was found between general malleability and case-specific malleability. No correlations were found between general malleability and the other variables. However, the correlations found between case-specific malleability, emotions, and severity assessment were all significant.

Mediation Model

To examine the mediating role of case-specific malleability and emotions in the relationship between general malleability and severity assessment (Hypothesis 2), we used Hayes’s (2013) PROCESS bootstrapping command with 5,000 iterations (Model 6). The analysis treated general malleability as a predictor variable, case-specific malleability as the first mediator, positive/negative emotions in parallel as the second mediators, and severity assessment as the dependent variable. Results showed that the 95 percent confidence interval for the indirect effect of general malleability on severity assessment through case-specific malleability and positive emotions did not include 0 (95% CI [−.155, −.010]) with 5,000 resamples. Moreover, results also showed that the 95 percent confidence interval for the indirect effect of general malleability on severity assessment through case-specific malleability and negative emotions did not include 0 (95% CI [−.185, −.009]) with 5,000 resamples, $F(4,105) = 19.64, p<.01, p<.001, .43)$. In other words, as found in Study 1, a two-path serial mediation was found: one pathway passes through case-specific malleability and positive emotions, and a serial mediation pathway simultaneously passes through case-specific malleability and negative emotions. These two paths were found to be significant. All the other optional paths between general malleability and severity assessment were not found to be significant. The model indicates indirect effects of general malleability on severity assessment (see Figure 2).

![Figure 2. The mediating model of general malleability on severity assessment in study 2 (n = 110).](image-url)
The results support Hypothesis 2: case-specific malleability and emotions mediated the correlation between general malleability and severity assessment.

General Discussion

The goal of this research was to examine whether a general belief in human malleability (the ability to change and develop) is correlated with a less severe assessment of a defendant’s criminal behavior, mediated by a specific belief in a specific defendant’s malleability, and positive and negative emotions. Taken together, the results of the two studies support the correlation between general belief in malleability and severity assessment of a defendant’s criminal behavior. Study 1 revealed that the correlations between the study variables were all significant. Namely, a general belief that people can change was positively correlated with case-specific malleability and positive emotions, and negatively correlated with negative emotions and severity assessment. Moreover, we found a two-path serial mediation: a pathway through case-specific malleability and positive emotions and, simultaneously, a mediation pathway through case-specific malleability and negative emotions. However, the results of Study 2 did not show a direct correlation between general malleability and severity assessment of a defendant’s criminal behavior, but only an indirect correlation between these variables, mediated by case-specific malleability and emotions. Our interpretation of these differences relates to the different method used to measure the independent variable (general malleability). In Study 1 we measured general malleability immediately after reading a legal text, whereas in Study 2 we measured this variable separately from reading the text (a week before). Hence, there was possibly a priming effect in Study 1 that influenced the participants’ responses to the general malleability questionnaire. In other words, in Study 1 general malleability beliefs may have been biased by the specific case described in the transcript. It may be that immediately after reading about a specific case and a specific defendant, participants responded to the general malleability beliefs questionnaire with the specific defendant in mind. Study 2 measured general malleability beliefs, without a preliminary effect, and showed that general malleability beliefs correlated with specific malleability beliefs, and specific malleability beliefs, in turn, affected emotions toward the defendant and severity assessment of the criminal behavior. In other words, the findings of Study 2 are valid, they reinforce the mediation model, and they explain the importance of the mediating role of the variables involved in this model.

This research contributes both theoretically and practically by providing an in-depth understanding of the role of malleability beliefs and emotions in legal decision making. From a theoretical aspect, our results enable new insights into the psychological processes involved in legal decision making. From the perspective of law research, the attempt to learn about the specific psychological processes that influence decision making can help us to better understand the nature of decisions and their legal outcomes. The influence of psychological processes and emotions on legal decision making has been the focus of much recent scholarship on law and psychology, an emerging field of research that has gained tremendous momentum over the last two decades (e.g., Bandes 1999; Maroney 2006, 2016; Vasilyev 2017). However, the nature of concrete dominant mechanisms within that general process is yet to be studied.

The present quantitative research demonstrates empirically for the first time the implications of malleability beliefs and emotions for the outcome of the decision-making process in a simulated legal context. Insights into psychological research can help legal scholars to better calibrate the law to human realities, and foster a desired set of emotional experiences among the law’s subjects (Maroney 2016). This research contributes to the literature by recognizing a basic belief that is important for understanding and explaining legal decision-making processes. Believing in a person’s ability to change and develop might dramatically shape a judge’s, a juror’s, a prosecutor’s, or other legal decision-makers’ point of view when making decisions. Within this domain, this relatively simple element adds a novel dimension to the existing framework.
To the best of our knowledge, the present research is the first to test the combined impact of entity versus incremental theories (Dweck, Chiu, and Hong 1995; Hong et al. 1999) and emotions within the legal context. As such, it contributes to psychological knowledge by introducing another factor that provides a better understanding of the basic psychological mechanisms related to the decision-making process. As found in a previous study (Cohen-Chen et al. 2014), inducing an incremental mindset is an effective indirect emotion regulation strategy for positive emotions, thus promoting conciliatory solutions. The present research expands this insight by examining the effects of emotions and beliefs on realistic and critical decision-making processes that can affect people and society not only in theory, but also in practice.

From a more applied standpoint, as argued above, people cannot always avoid, alter, or ignore their beliefs or emotions. However, they can and should be aware of the psychological factors that can affect their emotions, which will inevitably affect their decision making. Moreover, the present research explores the interconnectedness of emotion and cognition in the theory and practice of law. In line with the appraisal theory of emotions (Ellsworth and Scherer 2003), the present research suggests that a different appraisal regarding a defendant's ability to change is correlated with emotional response, which in turn is correlated with legal decision.

Despite the very strong intuitions that exist among the public, policy analysts and researchers have long agreed that there is no credible evidence that severe punishment policies have significant deterrent effects; the severity of the outcome offers little in terms of crime prevention through deterrence (Roberts and Gazal-Ayal 2013; Tonry 2009; Webster, Doob, and Myers 2009). Research has shown that longer prison sentences have not significantly reduced the likelihood of reoffending, and often actually increase it (Tait 2001). Significant support for these arguments was recently provided by the Israeli Public Committee for Considering Penal Policy and Offender Rehabilitation, headed by Supreme Court Justice (Ret.) Dalia Dorner (2015). The committee report warned against adopting severe punishment policies (Gal and Dancig-Rosenberg 2017). The results of this research can lead to adjudication that is consistent with the current approach in the literature and will be less severe and more compromising and restorative (Roberts and Gazal-Ayal 2013; Tonry 2009; Webster, Doob, and Myers 2009).

Furthermore, the present findings provide a new persuasion technique that can help lawyers and other legal actors attempting to soften the decision of legal decision makers (e.g., judges, juries, and negotiators) or convince them that severe punishment is undesirable since it is possible to rehabilitate the defendant. Making legal decision makers believe that people are malleable and can change may alter the judicial decision in favor of the defendant.

The present research has a few limitations that call for further research. First, the participants were law students (Study 1) or lawyers (Study 2), not professional judges. Although we are aware of the potential practical contribution of studying active judges in the Israeli context, due to the limitations and barriers imposed by the judicial system on judges' participation in studies, this was very difficult to implement. Therefore, it was important to us, at the initial stage, to examine the validity of our hypothesized model among law students and lawyers. Moreover, as noted above, in recent years, in light of the very high rate of plea bargains, many legal actors are involved in the legal decision-making process. Consequently, many decisions are made by lawyers even before they reach the courtroom, if at all. However, to increase the validity of our findings, future studies should test the model proposed in this research using professional judges.

A second limitation pertains to the fact that this was a correlational study, and therefore could not firmly establish the causal effects of malleability beliefs on decisions making. Although in Study 1 we used experimental designs to test the suggested causal argument, we did not succeed in creating a significant manipulation due to failure in activating the independent variable. We attribute this failure to our attempt to integrate the malleability message with the case-specific text; therefore, for the manipulation to work in future studies, it may be preferable to activate malleability manipulation separately and directly rather than incorporating it into the legal
transcript, as we did in the present studies. Previous studies (Halperin et al. 2011, 2012) showed that using malleability manipulation separately and directly with external manipulation that is not associated with the research theme (by conducting workshops to teach participants that people or groups in general can change, or by reading articles on the subject) increased the participants’ malleability mindset, which in turn affected their specific malleability beliefs in different contexts. Halperin et al. (2011, 2012) examined this manipulation in the context of the Israeli–Palestinian conflict, but it is possible that even in the legal context, in order to increase people’s perception of malleability, the mindset should be manipulated separately rather than concurrently, as we attempted to do in this research. Finally, the present research examines a specific branch of the law (criminal law). Future studies could test whether the present findings extend to additional branches of the law, such as civil and family law.

In summary, this research supports the findings of the existing literature relating to psychological influences on decision making (Frank 1949; Guthrie, Rachlinski, and Wistrich 2000; Kelman, Rottenstreich, and Tversky 1996; Kip Viscusi 1999; Rachlinski, Wistrich, and Guthrie 2013). The present research attempts to map the effects of these processes and characterize them by using a mediation model of case-specific malleability and emotions to gain a better understanding of the relationship between general malleability and legal assessment. Although the numerous implications of this model are yet to be investigated, our findings suggest that it may have the potential to shed light on a variety of processes of interest to psychologists, judges, lawyers and the law, and psychology researchers. We hope that the present study opens the door for future investigations.

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