Original Research Article

Journal of Cross-Cultural Psychology
1–28

DOI: 10.1177/00220221251381666
journals.sagepub.com/home/jcc


Not That Important Why You Did It: Causal Attribution Matters Less for Interdependent People in Judgment of Blame, Punishment, Rehabilitation, and Perceived Likelihood of Reintegration

BoKyung Park[1], Swathi Vepachedu[2], Grace Elizabeth Ornelas[1], and Thomas Tahlem[3]

Abstract

People in interdependent cultures explain others' behavior less through internal traits and more through external situations than those in independent cultures. Criminal justice research suggests that this should make people more lenient. They should blame less, punish less, support rehabilitation more, and perceive offenders to have less risk to re-offend. Yet, studies across cultures contradict this theoretical prediction. We address this contradiction by proposing the idea that culture shapes *how much* people consider the causal attribution of offenders' behaviors. Across two studies, compared to those from independent cultures (i.e., European Americans), participants from interdependent cultures (i.e., Asians/Asian Americans) relied less on their causal attribution when determining blame (Studies 1A, 1B), as well as punishment, support for rehabilitation, and likelihood of offenders' re-offense (Studies 2A, 2B). Next, we asked people how well they thought offenders could reintegrate into society after they had received punishment and underwent rehabilitation (Study 3). Causal attributions for offenders' past crimes still had more influence on European Americans' reintegration predictions than those of Asians/Asian Americans. Together, these studies suggest that culture shapes not just the types of attributions people make but also how much they consider those attributions when they decide how to respond to criminal acts.

Keywords

culture, attribution, blame, punishment, rehabilitation, morality

[1]The University of Texas at Dallas, TX, USA
[2]North Carolina State University, NC, USA
[3]The University of Chicago, IL, USA

Corresponding Author:
BoKyung Park, The University of Texas at Dallas, 800 West Campbell Road, Richardson, TX 75080, USA.
Email: bokyung.park@utdallas.edu

In 2002, Lee Boyd Malvo allegedly killed 10 people in a series of sniper attacks around Washington, DC. The attacks sent the DC area into a frenzy of fear and anxiety, with round-the-clock news coverage. At the trial, Malvo's defense attorney argued that he was brainwashed and indoctrinated by John Allen Muhammad. Muhammad adopted Malvo, trained him to shoot, and convinced him to do the killings.

Consider the jurors. They had to decide how much to attribute Malvo's murders to internal versus external factors. How important were his free will and sense of right and wrong (internal factors)? How important were his unstable family situation and Muhammad's domineering influence (external factors)? These attributions of Malvo's behavior might have influenced how much blame and punishment they thought Malvo deserved, as well as how effective rehabilitation would be in changing his future behavior.

Researchers have postulated that causal attributions influence such decisions. When people attribute a behavior more to internal or dispositional causes and less to external or situational causes, they are more likely to blame the person (Jacobs & Carmichael, 2002; Woolfolk et al., 2006), perceive them as more likely to re-offend (Carroll & Payne, 1977a), punish them severely (Carroll, 1979; Cochran et al., 2006; Sims, 2003; Young, 1991), and predict that rehabilitation will be less effective (Carroll, 1978; Cullen et al., 1985; Falco & Turner, 2014). Thus, attributions seem to influence people's responses to criminal acts.

On top of that, several studies have found that causal attribution differs between cultures (Choi et al., 2003; Lee et al., 1996; Morris & Peng, 1994; Peng & Knowles, 2003). People from individualistic cultures, where independent self-construal is more prevalent, tend to make more dispositional and fewer situational attributions than people from collectivistic cultures, where interdependent self-construal is more prevalent (a review: Bender et al., 2017). These findings imply that interdependent people would blame less and punish less (Feinberg et al., 2019). It is also logical to expect that they would predict less re-offense and think rehabilitative policies are more effective.

Yet the data contradict this logical expectation. Studies have found that people in interdependent cultures actually ascribe more blame and punish offenders more severely (Feinberg et al., 2019; Kwan, 2016). In this study, we offer an explanation for this surprising finding. We specifically suggest that cultures differ in the *degree to which* causal attribution contributes to people's views on blame, punishment, and rehabilitation.

Impact of Causal Attributions on Blame and Punitive Philosophies

The two primary reactions to criminal acts in most criminal justice systems are retributive and rehabilitative (Cullen & Gendreau, 2000; MacKenzie, 2001; Weiner et al., 1997). Retributive justice focuses more on punishment. It is based on the idea that the severity of punishment should be proportional to the severity of the crime (Carlsmith, 2006). In contrast, rehabilitative policies focus on eventually reintegrating offenders into society and discouraging re-offenses by training and educating them as part of their criminal sentence (Cullen & Gendreau, 2000; Rothman, 1980). Both punitive decisions are largely informed by judgments of blameworthiness (Blum & Ross, 2022; Weiner et al., 1997).

Prior research has found that causal attribution critically contributes to people's perceptions of blame (Lagnado & Gerstenberg, 2017), and consequently their judgment of either of the punitive approaches (Carroll, 1978; Sims, 2003). The attribution of criminal behavior to dispositional factors, such as an offender's traits, characteristics, and any other internal states, often leads people to assign greater causal responsibility to the offender and blame them more (Alicke, 2000; Cochran et al., 2006). As a result, people are more likely to view the offender as deserving of punishment than as an ideal candidate for rehabilitation (Carroll & Payne, 1977b; Darley et al., 2000; Sims, 2003; Young, 1991).

Situational attributions have the opposite effect. Attributions to factors like peer pressure and poverty often lead people to rate the offender as less causally responsible (Jacobs & Carmichael, 2002, 2004; Unnever et al., 2008). People perceive the offender as less likely to re-offend, less deserving of punishment, and more suited to rehabilitation than harsh retributive punishment (Carroll et al., 1987; Carroll & Payne, 1977a; Sims, 2003).

However, we are not aware of any studies asking whether people from different cultures consider causal attribution equally. This might provide an explanation for the gap between expectations based on previous criminal justice research and what cross-cultural studies have actually found, as described below.

Cultural Shaping of Causal Attribution

Accumulated cross-cultural research has found that people from individualistic cultures (such as Americans) are more likely to endorse independent self-construals (Markus & Kitayama, 1991). Independent self-construals think of the self as an independent agent, free from external forces, with behaviors that directly reflect their internal attributes. Thus, people see behavior as driven by their dispositions (Markus & Kitayama, 2003; Mesquita & Markus, 2004).

In contrast, people from collectivistic cultures (such as East Asia) are more likely to endorse an interdependent self-construal (Markus & Kitayama, 1991). Interdependent self-construals view the self as under the influence of external factors, like the situation. Thus, people tend to think of behavior as coming from both dispositional and situational factors (Markus & Kitayama, 2003; Mesquita & Markus, 2004).

Reflecting these differences, Americans tend to identify more dispositional and less situational contributors to behaviors than people in East Asia and South Asia (Choi et al., 2003; Nisbett et al., 2001). For example, one study found that sports articles in U.S. newspapers and magazines focused more on the athletes' dispositions and less on their situations than in Hong Kong (Lee et al., 1996). Studies have also found this difference among "bicultural" people, who have experience with different cultures. When primed with Chinese culture, bicultural participants in Mainland China and Hong Kong made more situational and less dispositional attributions than those primed with American culture (Hong et al., 2003; Wang et al., 2025). Even under cognitive load by doing multiple tasks at the same time, participants from Hong Kong, but not those from the United States, factored situational contributors into their judgments, suggesting that the consideration of situational constraints comes automatically for them (Knowles et al., 2001). Even when judging extremely deviant behaviors such as mass murder, Americans were more likely to attribute it to the offender's dispositions (e.g., his mental instability), while participants in China and India placed more weight on situational factors (e.g., social pressure; Bersoff & Miller, 1993; Choi & Nisbett, 2000; J. G. Miller & Luthar, 1989; Morris & Peng, 1994). Extending the scope of culture, research found that people in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies consider the perpetrators' internal states more than non-WEIRD people to make moral judgments about others' behaviors (Barrett et al., 2016; Curtin et al., 2020; McNamara et al., 2019).

These findings suggest that the consequences of their causal attribution should also differ between cultures. In other words, if people in East Asia and South Asia make more situational attributions, they should also blame less, punish less, and support rehabilitation more. Yet, accumulated findings suggest that those from interdependent cultures often blame offenders just as much, if not more harshly, than those from independent cultures (Feinberg et al., 2019; Shteynberg et al., 2009). They also punish offenders just as severely—and sometimes more—than people in independent cultures (Feinberg et al., 2019; Kwan, 2016). Collectivistic nations often also have harsher punitive systems than individualistic nations, such as more death sentences and higher incarceration rates (Amnesty International, 2023; Feinberg et al., 2019).

We offer a way to resolve this puzzle. We argue that there are cultural differences in *the extent to which* people rely on causal attributions to determine their views on blame, punishment, and rehabilitative policies. Although the findings are limited, some studies have found that people from interdependent cultures may consider factors other than their causal attribution. For example, Americans relied on their perceptions of the offender's agency (i.e., the extent to which the offender acted on their free will) in determining their ascriptions of blame and punishment, while Chinese cared more about how much social harmony would be disrupted due to the harmful behaviors (Feinberg et al., 2019). Compared to Americans, Chinese also seemed to care more about whether the behavior violated social norms (Kwan, 2016; Riemer et al., 2014). Another body of literature suggested that the consideration of the situational mitigators still involves the analyses of the perpetrators' internal states, such as their beliefs and perspectives (Curtin et al., 2020). This implies that the reference to both the dispositional and situational reasoning may be particularly important in societies where people rely a lot on others' internal states to judge their behaviors. Even though these studies did not examine the degrees of reliance on causal attribution per se, they suggest that causal factors may not be as important for people in interdependent cultures. We investigated this possibility across two studies.

The Outcomes of Punitive and Rehabilitative Responses to Crime

After offenders complete the punishment assigned for their crimes and go through rehabilitative programs in prison, they should re-enter the community. Importantly, for several reasons, preventing re-offense does not guarantee successful reintegration into society. Efforts to reduce the possibility of re-offense are centered on decreasing the offenders' risk factors and providing treatment for the underlying causes of their crimes (e.g., substance abuse; Fox, 2014). Reintegration, on the contrary, requires community level support, relational restoration, and a socially embedded understanding (Fox, 2014). It is a rather advanced and fundamental reformation of the offender, which the justice system ultimately aims for.

Does culture still shape how much people rely on causal attributions to estimate the offenders' reintegration? This question is important because it can potentially inform societal-level policies and strategies in response to ex-offenders. For example, in a culture where there is an agreement that the causal drivers of the offenders' past crimes should still influence their re-entry into the society, the release of offenders may rely heavily on the examination of the nature of their past crimes compared to another culture without such a view. Although the investigation of the societal-level policies goes beyond the scope of the current research, in Study 3, we aimed to provide the initial attempt to understand if culture shapes how much people consider the causal drivers of one's past crime in their perception of offenders' reentrance into the community.

Previous studies have found that Asians predict more changes in the future and perceive the past as less predictive of the future than Americans (Ji, 2008; Ji et al., 2001; although there are different findings in another study: Ji et al., 2009). Asians perceive that the universe is constantly in flux, which makes it more logical to predict changes in people's future (Ji et al., 2001). It also makes sense to be more skeptical of using current trends to predict the future. Thus, they may perceive that the causal drivers behind the offenders' past crimes have changed and are now less likely to influence the offenders' future reintegration. On the other hand, if Americans are more likely to think that past behavior predicts future behaviors, it makes sense that they would put more weight on the causes of their past crimes.

Current Study

We tested whether people's culturally shaped self-construal (Study 1A) or cultural background (Studies 1B, 2A, 2B, 3) is associated with how much they consider causal attribution in

determining responses to offenders. We specifically examined if people in independent cultures show stronger associations between dispositional (vs. situational) attributions and their judgments of the offenders' blameworthiness (Studies 1A, 1B; H1), the severity of punishment they deserve (Studies 2A, 2B; H2), the support for rehabilitative policies for these offenders (Studies 2A, 2B; H3), and the estimation of future re-offense of these offenders (Studies 2A, 2B; H4). We further studied whether culture still shapes how much individuals consider the causal factors behind an offender's past crime to a different extent when evaluating their possibility of re-offense (H5A) and reintegration into the society (H5B), even *after* the punishment and rehabilitative approaches are delivered (Study 3).

Studies 1A and 1B

In Studies 1A and 1B, we tested whether participants' consideration of dispositional versus situational attributions of an offender's immoral behavior differs depending on their cultural backgrounds when they consider how much blame to assign. Data from all studies are available on the OSF (https://osf.io/sq9tk/files/osfstorage).

Method

Participants. A power analysis for a mixed-effect regression model with a small to medium effect size (Cohen's $f^2 = .10$), $\alpha = .05$, and $1-\beta = .80$, indicated that the required number of participants is 198. In Study 1A, we recruited 252 MTurkers (https://www.mturk.com/). We required that participants be in the United States, have an Mturk Human Intelligence Task (HIT) approval rate equal to or greater than 95%, and have at least 100 HITs approved. We asked several open-ended questions and excluded participants who provided non-sensical responses (such as answering "nice" to a question asking how many answers they provided with little or no attention). That left us with 223 participants (64.6% White/Caucasian/European Americans; 4.5% Hispanic/Latino Americans; 15.7% Black/African Americans; 7.6% East Asian/East Asians/Asian Americans; 2.2% South Asian/South Asians/Asian Americans; 0.4% Middle Eastern/Arab Americans; 2.7% Native Americans; 2.2% multiracial; 41.3% female; 58.7% male; 0% other; age $M = 36.26$, $SD = 10.42$).

In Study 1B, we recruited 143 European Americans and 85 East Asian Americans through the student participation pool at the University of Texas at Dallas (UT Dallas). Among those who identified as a White, Non-Hispanic American, participants who were born and raised in the United States, whose parents were born and raised in the United States, and whose grandparents were born and raised in the United States or Western Europe remained in the final sample (European Americans; $N = 91$). Among those who identified as East Asian Americans, only participants whose parents and themselves were born and raised in either the United States or an East Asian nation, and whose grandparents were born and raised in an East Asian nation, remained in the final sample ($N = 76$; 65.9% female; 31.1% male; 3.0% other; age $M = 21.19$, $SD = 3.22$).

Instruments

Immoral Behavioral Vignette. We used 64 different behavioral vignettes about 64 different protagonists from a prior study (Kim et al., 2021). Half of the vignettes were immoral (e.g., "Someone stole and used her cousin's credit card"); the other half were moral behaviors (e.g., "Someone covered an overnight shift for her sick coworker"). We created eight different stimuli sets, composed of four immoral and four moral behaviors. The stimuli sets were equivalent in terms of the moral relevance, perceived frequency, and emotional arousal of the behaviors, as pretested in a prior study (Kim et al., 2021). Each participant saw one stimuli set. We matched the pronouns of the protagonists to participants' self-identified gender (people who chose "other" saw female

pronouns). For the purpose of this specific study, the analyses focused on participants' blame of immoral behaviors. Supplementary Section 1 reports findings for moral behaviors.

Self-Construal. We assessed participants' independent and interdependent self-construal using the Self-Construal Scale (Singelis, 1994). We used this as an index of their cultural background in Study 1A. We averaged participants' responses to independent (e.g., "I enjoy being unique and different from others in many respects"; Cronbach's $\alpha = .83$) and interdependent (e.g., "I will sacrifice my self-interest for the benefit of the group I am in"; Cronbach's $\alpha = .85$) self-construal subscales separately. We then created independence–interdependence scores for each participant by subtracting their interdependent self-construal scores from independent scores and mean centering them.

Procedure. After providing informed consent, participants indicated their gender as either male, female, or other. Then they read each behavioral description, presented in a randomized order, and rated how much blame the offenders deserved ("How much blame does this person deserve?") on a scale from 1 (*Not at all*) to 7 (*Extremely*).

After rating all behavioral descriptions, participants saw each behavior again and made dispositional and situational attributions. In Study 1A, participants indicated which statement they agreed with more for each behavior, "This person is the type to do this" (dispositional: coded as 1) versus "There are situations that could lead this person to do this" (situational: coded as −1; the position of the statements was counterbalanced, as well as the anchors of rating scales used in Studies 1B and 2A; see Supplementary Section 2). In Study 1B, participants first saw a brief explanation about dispositional versus situational attributions. We told them that people do certain behaviors because they are the type of person who would do those things, but other times there are situations that lead people to do those behaviors, regardless of who they are. Then, they saw each behavior again and rated whether the behavior was primarily caused by the person or the situation ("Is this behavior primarily caused by the person, regardless of the situation, or primarily caused by the situation the person was in?" from 1 [*Mostly by the situation*] to 7 [*Mostly by the person*]). Afterwards, participants completed the self-construal scale and demographic questions. The Institutional Review Board at UT Dallas approved the procedures for all studies in this article.

Analyses and Results

Hypothesis 1: The Link Between Dispositional (vs. Situational) Attributions and Blame Will be Stronger for More Independent (vs. Interdependent) People. To test H1, we ran a mixed-effect regression on participants' vignette-by-vignette blameworthiness ratings, with individual participants as random effects. In Study 1A, we included fixed effects for participants' independence–interdependence, causal attributions (i.e., their choice of dispositional attribution over situational attribution), and the interaction between these factors. There was a main effect of causal attributions (Table 1); participants assigned more blame to the offenders that they chose the dispositional (vs. situational) attribution for. Importantly, this effect was qualified by an interaction between independence–interdependence and causal attributions (Table 1; $B = 0.10$, $SE = 0.04$, $t = 2.31$, $p = .021$). Participants who were more independent (+1 *SD* independence–interdependence) assigned more blame to behaviors that they attributed to dispositional factors (vs. situational factors) compared to participants who were more interdependent (−1 *SD* independence–interdependence; more independent $B = 0.42$, $SE = 0.07$, $t = 6.31$, $p < .001$; more interdependent $B = 0.20$, $SE = 0.07$, $t = 2.97$, $p = .003$; Figure 1A).

In Study 1B, we ran fixed effects for participants' culture, causal attributions (dispositional vs. situational attribution ratings), and the interaction between these factors in the same mixed-effect

Table 1. Findings on blameworthiness ratings in Studies 1A and 1B.

Predictor	Study 1A *B* (*SE*)	Study 1B *B* (*SE*)
Culture	–0.01 (0.06)	–0.50 (0.18)**
Causal Attribution	0.31 (0.05)***	0.31 (0.03)***
Culture × Causal Attribution	0.10 (0.04)*	0.08 (0.03)*

Note. *B* coefficients. Culture refers to independent–interdependent self-construal in Study 1A and European American versus East Asian American in Study 1B.
*$p < .05$. **$p < .01$. ***$p < .001$.

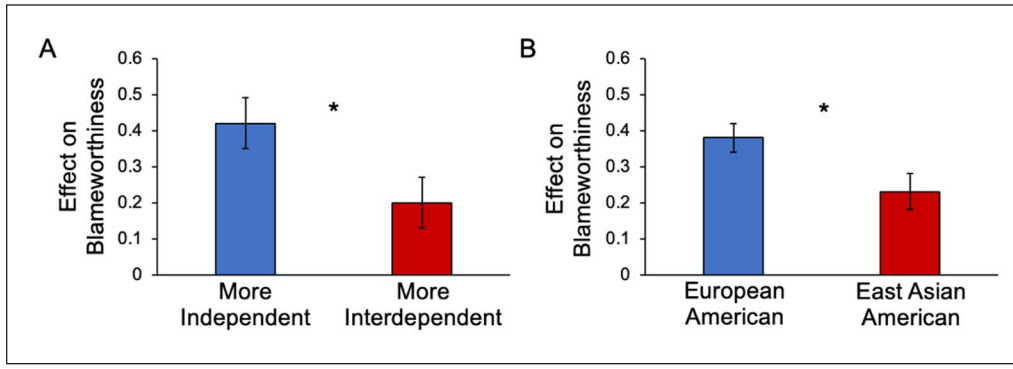

Figure 1. Effect of Causal Attribution on Blameworthiness (B Coefficients) in (A) Study 1A and (B) Study 1B. More independent = 1 *SD* above the mean of independence–interdependence; more interdependent = 1 *SD* below the mean of independence–interdependence.
SD = Standard Deviation; Error bars = standard errors.
*$p < .05$.

regression model as in Study 1A. There were main effects of culture and causal attributions (Table 1). East Asian Americans blamed the offenders more harshly than European Americans (European American $M = 5.24$, $SE = 0.09$; East Asian American $M = 5.47$, $SE = 0.10$), consistent with prior work (Feinberg et al., 2019). Also, people who made more dispositional (vs. situational) attributions assigned more blame. These effects were qualified by an interaction between culture and causal attributions (Table 1; $B = 0.08$, $SE = 0.03$, $t = 2.31$, $p = .021$). Corroborating the Study 1A findings, the effect of causal attributions was stronger for European Americans than for East Asian Americans (European American $B = 0.38$, $SE = 0.04$, $t = 8.98$, $p < .001$; East Asian American $B = 0.23$, $SE = 0.05$, $t = 4.63$, $p < .001$; European American vs. East Asian American $B = 0.15$, $SE = 0.07$, $t = 2.31$, $p = .021$; Figure 1B).

Studies 1A and 1B Discussion

In Studies 1A and 1B, we found evidence that people from different cultural backgrounds use causal attribution differently to determine blame. People who scored higher on independent self-construal had ratings of blame that were more closely tied to their causal attributions. People who scored higher on interdependent self-construal had weaker correlations between blame and attribution (Study 1A). Similarly, in Study 1B, East Asian Americans' judgments of blame were less closely tied to causal attribution compared to European Americans.

Building on these findings, in Studies 2A and 2B, we tested if these effects are generalizable to decisions made within the justice system. We specifically focused on people's assignment of punishments, consideration of rehabilitation programs, and explicit evaluations about how likely offenders are to commit another crime.

Studies 2A and 2B

In Studies 2A and 2B, we examined the influence of participants' causal attribution on (a) the severity of their punishment assignments, (b) perceived effectiveness of (Study 2A) and support for (Study 2B) rehabilitative policies, and (c) perceived likelihood of the offenders' future re-offense in response to different criminal behaviors. One potential critique of Study 1 is that our attribution questions assumed that dispositional and situational attributions are inherently in conflict. Participants categorized whether the behavior was driven by either dispositional or situational causes or answered attribution questions on a continuum from dispositional to situational. However, this approach excludes the possibility that dispositional and situational attributions are separable, distinctive constructs (F. D. Miller et al., 1981). To test this question, we asked dispositional and situational attributions separately in Study 2.

Method

Participants. In both studies, we aimed to recruit 274 participants based on a power analysis with an average effect size from Studies 1A and 1B, Cohen's $d = 0.34$, $\alpha = .05$, $1-\beta = .80$. Study 2A data were collected from the student participation pool at UT Dallas ($N = 88$), a part-time job posting website at Boston University ($N = 53$), and Prolific (https://www.prolific.com/; $N = 140$). Prolific participants were required to be born in the United States, live in the United States, have U.S. nationality, be fluent in English, and identify as either White or East Asian/Southeast Asian. We recruited a total of 281 participants (56.2% White/Caucasian/European American, 0.7% Hispanic/Latin American, 0.4% Black/African American, 27.4% East Asian/East Asian American, 7.5% Southeast Asian/Southeast Asian American, 2.8% South Asian/South Asian American, 2.8% Native American, 0.7% multiracial, 1.4% missing data; 45.9% female, 49.5% male, 3.6% other, 1.1% missing data; age $M = 28.92$, $SD = 12.62$). We focused on participants who identified as White/Caucasian/European American ("European American"; $N = 158$), or as either East Asian/East Asian American, Southeast Asian/Southeast Asian American, or South Asian/South Asian American ("Asian/Asian American"; $N = 106$). We did not collect data on where the participants, their parents, or grandparents were born and raised.

In Study 2B, we recruited a total of 321 participants from the UT Dallas student participation pool (28.7% White/Caucasian/European American, 8.1% East Asian/East Asian American, 11.2% Southeast Asian/Southeast Asian American, 52.0% South Asian/South Asian American; 56.4% female, 41.7% male, 1.2% other, 0.6% missing data; age $M = 20.08$, $SD = 1.96$). We compared participants who identified as White/Caucasian/European American ($N = 92$) with those who identified as one of the Asian/Asian American groups ($N = 229$).

Instruments

Criminal Behavioral Vignettes. We retrieved a total of 12 vignettes that described criminal behaviors of various levels of severity, varying in whether the vignettes involved killing, injury, and the use of firearms or cutting instruments from the Uniform Crime Reporting Handbook (Federal Bureau of Investigation [FBI], 2004). Drawing on the handbook's classification, we categorized these criminal behaviors as mild (e.g., physically attacking someone without a firearm or cutting instrument and breaking a bone), moderate (e.g., shooting someone and injuring them),

and severe (e.g., killing someone during an argument). We sampled four vignettes per severity level, making a total of 12 vignettes (Supplementary Section 3 lists all vignettes).

Prior research found that having a prior criminal record influenced people's judgments of moral culpability (Caplan, 2007). Thus, we also manipulated whether the offender in each vignette had a prior criminal record by adding one additional sentence at the end of each vignette (e.g., with prior record: "He was found to have a prior criminal record for motor vehicle theft"; without prior record: "He was found to have no prior criminal record"). Among the four vignettes for each severity level, two indicated that the offender had a prior criminal record, and the other two indicated that the offender had no prior criminal record. We counterbalanced whether participants saw a particular vignette with or without prior criminal record.

Support for Rehabilitative Policies. In Study 2A, we contrasted participants' perception of rehabilitative policies against their perception of retributive policies. We chose these two types of policies because they are central to the criminal justice system (Cullen & Gendreau, 2000; MacKenzie, 2001; Weiner et al., 1997). In response to each criminal behavior, participants rated how effective rehabilitative (i.e., psychological counseling, educational and vocational training) and retributive policies (i.e., isolation in a prison cell, hard labor) would be in dealing with the offender ("How effective do you think each of these policies would be in dealing with this offender?") using a scale from 1 (*Not at all effective*) to 7 (*Extremely effective*). We averaged participants' ratings for the effectiveness of rehabilitative and retributive programs separately (Bernard et al., 2017). Then, we subtracted retributive ratings from rehabilitative ratings to use as the outcome variable in further analyses.

In Study 2B, we administered seven items that included statements in favor of and against different rehabilitative policies adapted from Pickett and Baker (2014). Participants rated the extent to which they opposed or supported each of the policies (e.g., "Reducing counseling programs for offenders in prison" and "Expanding job training programs for offenders in prison"; Pickett & Baker, 2014) on a scale from 1 (*Strongly oppose*) to 7 (*Strongly support*). After reverse-coding participants' support for statements against rehabilitative policies, we averaged their responses to create an aggregate of their support for rehabilitative policies per vignette (Cronbach's $\alpha = .78–.84$).

Causal Attribution. In Study 2A, we measured dispositional and situational attributions using two separate scales. Before making the attribution ratings, participants read a brief explanation to clarify the meaning of "personal factors" (i.e., "people's behaviors can be a result of the person's disposition, such as their personality or goals") and "situational factors" (i.e., "people's behaviors can be due to the situation that the person has been in, such as their social and economic background or the specific context of the event"). Participants rated dispositional and situational attributions on scales ("To what extent can this behavior be explained by [personal/situational] factors?") from 1 (*Not at all*) to 7 (*Extremely*). We subtracted situational attribution from dispositional attribution, creating dispositional–situational attribution scores, since our hypotheses focused on the relative strength of dispositional and situational attributions (Storms, 1973; Supplementary Section 4 reports findings for dispositional and situational attributions separately).

In Study 2B, we adapted a causal attribution measure from Kitayama and colleagues (2006). Participants rated their agreement with two dispositional items (e.g., "The offender would have acted differently if his features [such as his character, attitude, or temperament] had been different") and two situational items (e.g., "The offender would have acted differently if features of the environment that surrounded him [such as the atmosphere, social norms, or other contextual factors] had been different") on a scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*). We subtracted situational attribution ratings (Cronbach's $\alpha = .77–.87$) from dispositional attribution

ratings (Cronbach's $\alpha = .64–.89$), creating a dispositional–situational attribution score for each vignette.

Procedure. After providing informed consent, participants saw 12 vignettes in a random order. For each vignette, participants assigned the punishment that the offender deserved for the crime ["Use the scale to assign a punishment the offender deserves for his crime"; No punishment, 2 weeks in prison, 2 months in prison, 6 months in prison, 1 year in prison, 3 years in prison, 7 years in prison, 15 years in prison, 30 years in prison, Life in prison with parole, Life in prison without parole; each anchor was converted into a number, 1–11; adapted from Darley et al. (2000)]. Participants also rated their support for rehabilitative policies as described above. Half of the participants completed the punishment ratings first, while the other half completed the rehabilitation ratings first. Findings persisted after controlling for the order in which measures were completed by participants.

Afterwards, participants saw the same vignettes one more time. For each vignette, participants rated (a) dispositional and situational attributions and (b) the likelihood of re-offense ("How likely do you think it is for this offender to commit another crime in the future?") from 1 (*Not at all likely*) to 7 (*Extremely*). Half of the participants completed the attribution ratings first, while the other half completed the re-offense ratings first. Results were the same after controlling for the order of the measures.

Next, participants completed the lab's standard battery of questionnaires (Supplementary Section 5A) and demographic questions. We note that the lab's battery questionnaires included tightness-looseness, the degree to which societies enforce rules and tolerate deviance from norms (Gelfand et al., 2011). Tightness is associated with stricter responses to criminal acts, such as high incarceration rates (Harrington & Gelfand, 2014). However, controlling for tightness-looseness did not change our findings in all studies (Supplementary Section 5B).

Analyses and Results

Hypothesis 2: The Link Between Dispositional (vs. Situational) Attributions and Punishment Is Stronger for European Americans Than Asians/Asian Americans. To test the second hypothesis, we conducted a linear mixed-effects regression on participants' vignette-by-vignette punishment ratings. We tested fixed effects for participants' culture, causal attributions (dispositional–situational), crime severity of the behaviors, prior criminal record of the offenders, and the interactions between these predictors. We included individual participants as random effects.

Across two studies, there were main effects of culture, causal attributions, crime severity, and prior criminal record (Table 2). More punishment was assigned by Asians/Asian Americans than by European Americans, when participants made more dispositional (vs. situational) attributions, when the crimes were more severe (severe vs. moderate vs. mild $ps < .001$), and when the offenders had a prior criminal record rather than no record (Table 3).

In both studies, there was an interaction between attributions and crime severity (Table 2). The effect of attribution on punishment was the greatest when the crime was severe, followed by mild and moderate (Table 4; severe vs. moderate and severe vs. mild $ps < .001$; moderate vs. mild Study 2A $p = .001$, Study 2B $p = .155$). Also, an interaction between crime severity and prior criminal record (Table 2) revealed that, although punishment was consistently greater for offenders with a prior criminal record, this difference was smaller when the crime was severe (Table 3; no record vs. record: Study 2A mild $B = -0.75$, $SE = 0.11$, $t = -7.03$, $p < .001$; moderate $B = -0.76$, $SE = 0.11$, $t = -7.03$, $p < .001$; severe $B = -0.23$, $SE = 0.11$, $t = -2.14$, $p = .032$; Study 2B mild $B = -0.82$, $SE = 0.11$, $t = -7.49$, $p < .001$; moderate $B = -0.98$, $SE = 0.11$, $t = -9.02$, $p < .001$; severe $B = -0.49$, $SE = 0.11$, $t = -4.47$, $p < .001$).

Table 2. Findings on punishment in Studies 2A and 2B.

Predictor	Study 2A *B* (*SE*)	Study 2B *B* (*SE*)
Culture	–0.15 (0.08)*	–0.18 (0.08)*
Causal Attribution	0.17 (0.01)***	0.20 (0.02)***
Crime Severity	1.69 (0.04)***	1.35 (0.04)***
Prior Criminal Record	0.31 (0.03)***	0.40 (0.03)***
Culture × Causal Attribution	**0.03 (0.01)***	**0.07 (0.02)*****
Culture × Crime Severity	0.08 (0.04)*	0.05 (0.04)
Culture × Prior Criminal Record	–0.01 (0.03)	0.01 (0.03)
Causal Attribution × Crime Severity	0.11 (0.01)***	0.19 (0.02)***
Causal Attribution × Prior Criminal Record	–0.03 (0.01)**	–0.03 (0.01)†
Crime Severity × Prior Criminal Record	–0.13 (0.04)*	–0.08 (0.04)*
Culture × Causal Attribution × Crime Severity	–0.01 (0.01)	**0.07 (0.02)*****
Culture × Causal Attribution × Prior Criminal Record	0.01 (0.01)	–0.01 (0.01)
Culture × Crime Severity × Prior Criminal Record	–0.04 (0.04)	0.00004 (0.04)
Causal Attribution × Crime Severity × Prior Criminal Record	0.01 (0.01)	0.01 (0.02)
Culture × Causal Attribution × Crime Severity × Prior Criminal Record	0.01 (0.01)	–0.03 (0.02)

Note. *B* coefficients. Significant interactions including participant culture and causal attribution are bolded.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

In Study 2A, but not in Study 2B, there were significant interactions between culture and crime severity and between attribution and prior criminal record (Table 2). Asians/Asian Americans punished mild crimes more harshly than European Americans (European American: $M = 4.00$, $SE = 0.11$; Asian/Asian American: $M = 4.45$, $SE = 0.14$, $p = .011$; for moderate and severe crimes, $ps > .20$). Also, the effect of attributions was greater when the offenders had no prior criminal record than when they had a record (no record $B = 0.20$, $SE = 0.02$, $t = 12.49$, $p < .001$; prior record $B = 0.13$, $SE = 0.02$, $t = 7.82$, $p < .001$).

Most importantly, there was an interaction between culture and causal attributions in both studies (Table 2; Study 2A: $B = 0.03$, $SE = 0.01$, $t = 2.56$, $p = .011$; Study 2B: $B = 0.07$, $SE = 0.02$, $t = 4.70$, $p < .001$). The link between attributions and punishment was stronger for European Americans than Asians/Asian Americans (Table 4; Study 2A: European American vs. Asian/Asian American $B = 0.06$, $SE = 0.02$, $t = 2.56$, $p = .011$; Study 2B: European American vs. Asian/Asian American $B = 0.14$, $SE = 0.03$, $t = 4.70$, $p < .001$; Figure 2).

In Study 2B, this effect was further qualified by a three-way interaction between culture, attributions, and crime severity (Table 2; $B = 0.07$, $SE = 0.02$, $t = 4.05$, $p < .001$). When crimes were mild, there were no significant differences between European Americans and Asians/Asian Americans in the link between attributions and punishment. But the link was stronger for European Americans than Asians/Asian Americans when crimes were moderate and severe (Table 4; European American vs. Asian/Asian American mild: $B = 0.04$, $SE = 0.06$, $t = 0.70$, $p = .484$; moderate: $B = 0.09$, $SE = 0.05$, $t = 1.99$, $p = .047$; severe: $B = 0.30$, $SE = 0.05$, $t = 6.52$, $p < .001$; Figure 2B). All other main effects and interaction effects were not significant ($ps > .076$) (Supplementary Section 6 reports breakdowns of the culture × attribution effect by all crime severity × prior criminal record vignettes for all H2–H5 findings).

Hypothesis 3: The More Dispositional (vs. Situational) Attributions European Americans (vs. Asians/Asian Americans) Make, the Less They Support Rehabilitative Policies. We ran a linear mixed-effects regression on participants' support for rehabilitative policies, with fixed effects for participants'

Table 3. Means and standard errors for punishment, rehabilitation, and re-offense ratings.

Punishment divided by			Study 2A M (SE)	Study 2B M (SE)
Culture	European American		5.94 (0.10)	6.51 (0.13)
	Asian/Asian American		6.22 (0.12)	6.77 (0.08)
Crime severity	Mild		4.22 (0.09)	5.10 (0.09)
	Moderate		6.17 (0.09)	6.66 (0.09)
	Severe		7.74 (0.09)	8.09 (0.09)
Prior criminal record	No record		5.78 (0.08)	6.26 (0.08)
	Prior record		6.38 (0.08)	7.02 (0.08)
Crime severity X Prior criminal record	Mild	No record	3.84 (0.10)	4.69 (0.10)
		Prior record	4.60 (0.10)	5.51 (0.11)
	Moderate	No record	5.79 (0.10)	6.17 (0.10)
		Prior record	6.55 (0.10)	7.15 (0.10)
	Severe	No record	7.63 (0.10)	7.85 (0.10)
		Prior record	7.86 (0.10)	8.33 (0.10)
Rehabilitation divided by			**Study 2A M (SE)**	**Study 2B M (SE)**
Crime severity	Mild		2.12 (0.13)	5.35 (0.06)
	Moderate		1.53 (0.13)	5.26 (0.06)
	Severe		1.24 (0.13)	5.12 (0.06)
Prior criminal record	No record		1.79 (0.13)	5.30 (0.06)
	Prior record		1.46 (0.13)	5.17 (0.06)
Re-offense divided by			**Study 2A M (SE)**	**Study 2B M (SE)**
Crime severity	Mild		4.58 (0.06)	4.52 (0.06)
	Moderate		4.87 (0.06)	4.72 (0.06)
	Severe		4.90 (0.06)	4.81 (0.06)
Prior criminal record	No record		4.21 (0.06)	4.20 (0.05)
	Prior record		5.35 (0.06)	5.16 (0.05)

Note. Means and standard errors from the significant participant culture, crime severity (mild, moderate, severe), and prior criminal record (no record, prior record) effects on punishment, rehabilitation, and re-offense ratings in Studies 2A and 2B.

culture, causal attributions (dispositional–situational), crime severity, prior criminal record, and the interactions between these predictors. We entered participants as random effects.

Across two studies, there were significant main effects of attributions, crime severity, and prior criminal record (Table 5). People rated rehabilitative policies as less effective when they made more dispositional (vs. situational) attributions, for more severe crimes (severe vs. moderate vs. mild $ps < .001$, except for Study 2B moderate vs. mild $p = .002$), and when the offenders had a prior criminal record rather than no record (Table 3). In addition, Study 2B revealed a main effect of culture (Table 5), such that Asians/Asian Americans supported rehabilitation less than European Americans (European American $M = 5.46$, $SE = 0.10$; Asians/Asian American $M = 5.01$, $SE = 0.07$).

In both studies, there was a significant interaction between attributions and crime severity (Table 5). The link between attributions and views on rehabilitation was strongest when the crime was severe, followed by moderate and mild (Table 4; Study 2A: severe vs. moderate $p = .006$,

Table 4. Effect of causal attribution on punishment and rehabilitation ratings.

Causal attribution effect divided by		Punishment		Rehabilitation	
		Study 2A B (SE)	Study 2B B (SE)	Study 2A B (SE)	Study 2B B (SE)
Crime severity	Mild	0.16 (0.02)***	0.13 (0.03)***	–0.04 (0.02)*	–0.07 (0.01)***
	Moderate	0.06 (0.02)***	0.06 (0.02)**	–0.07 (0.02)***	–0.05 (0.01)***
	Severe	0.35 (0.02)***	0.46 (0.02)***	–0.14 (0.02)***	–0.11 (0.01)***
Culture	European American	0.20 (0.01)***	0.27 (0.02)***	–0.10 (0.01)***	-
	Asian/Asian American	0.14 (0.02)***	0.13 (0.02)***	–0.04 (0.02)**	-

Causal attribution effect divided by		Punishment: Study 2B		Rehabilitation: Study 2B	
		European American B (SE)	Asian/Asian American B (SE)	European American B (SE)	Asian/Asian American B (SE)
Culture X Crime severity	Mild	0.15 (0.05)**	0.11 (0.03)***	–0.10 (0.02)***	–0.04 (0.01)***
	Moderate	0.11 (0.04)**	0.02 (0.03)	–0.05 (0.01)***	–0.05 (0.01)***
	Severe	0.61 (0.04)***	0.31 (0.03)***	–0.11 (0.01)***	–0.11 (0.01)***

Note. Top: Effect of causal attribution on punishment and rehabilitation ratings (B coefficients) divided by crime severity (mild, moderate, severe) and participant culture, respectively, in Studies 2A and 2B. Bottom: Effect of causal attribution on punishment and rehabilitation ratings (B coefficients) divided by the culture by crime severity interaction in Study 2B. Empty cells mean the corresponding interaction was not significant.
*$p < .05$, **$p < .01$, ***$p < .001$.

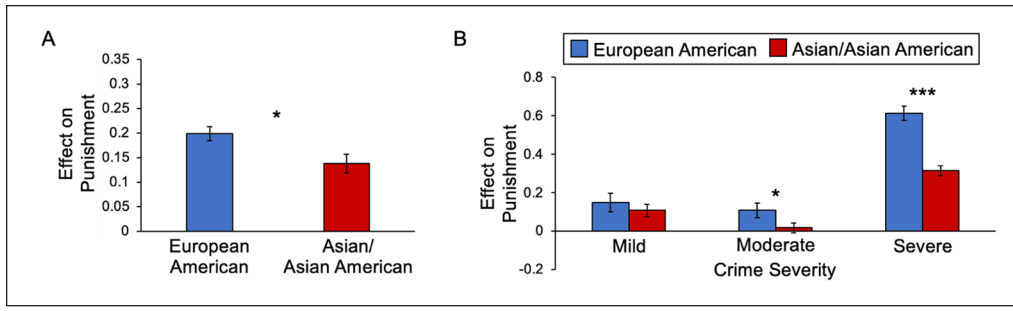

Figure 2. Effect of Causal Attribution on Punishment (B Coefficients) in (A) Study 2A and (B) Study 2B. Error bars = standard errors.
*$p < .05$. ***$p < .001$.

severe vs. mild $p < .001$, moderate vs. mild $p = .626$; Study 2B: severe vs. moderate $p < .001$, severe vs. mild $p = .011$, moderate vs. mild $p = .337$). In Study 2B, but not in Study 2A, a significant interaction between culture and crime severity (Table 5) revealed that Asians/Asian Americans supported rehabilitative policies less than European Americans across all severity levels, but this difference was smaller for more severe crimes (European American vs. Asian/Asian American: mild $B = 0.53$, $SE = 0.13$, $t = 4.16$, $p < .001$; moderate $B = 0.43$, $SE = 0.13$, $t = 3.41$, $p < .001$; severe $B = 0.39$, $SE = 0.13$, $t = 3.10$, $p = .002$).

Table 5. Findings on rehabilitation in Studies 2A and 2B.

Predictor	Study 2A *B* (*SE*)	Study 2B *B* (*SE*)
Culture	–0.02 (0.12)	0.23 (0.06)***
Causal Attribution	–0.07 (0.01)***	–0.08 (0.01)***
Crime Severity	–0.42 (0.03)***	–0.10 (0.01)***
Prior Criminal Record	–0.16 (0.03)***	–0.07 (0.01)***
Culture × Causal Attribution	**–0.03 (0.01)****	–0.01 (0.01)†
Culture × Crime Severity	–0.01 (0.03)	–0.04 (0.01)**
Culture × Prior Criminal Record	–0.03 (0.03)	0.01 (0.01)
Causal Attribution × Crime Severity	–0.05 (0.01)***	–0.02 (0.01)***
Causal Attribution × Prior Criminal Record	–0.01 (0.01)	0.01 (0.01)†
Crime Severity × Prior Criminal Record	0.04 (0.03)	–0.01 (0.01)
Culture × Causal Attribution × Crime Severity	0.02 (0.01)	**0.01 (0.01)***
Culture × Causal Attribution × Prior Criminal Record	0.004 (0.01)	–0.01 (0.01)†
Culture X Crime Severity X Prior Criminal Record	0.02 (0.03)	0.002 (0.01)
Causal Attribution × Crime Severity × Prior Criminal Record	0.005 (0.01)	–0.001 (0.01)
Culture × Causal Attribution × Crime Severity × Prior Criminal Record	**–0.03 (0.01)****	0.003 (0.01)

Note. Findings on perceived effectiveness of (Study 2A) and support for (Study 2B) rehabilitation (*B* coefficients). Significant interactions including participant culture and causal attribution are bolded.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

In Study 2A, there was a significant interaction between culture and attributions (Table 5; $B = -0.03$, $SE = 0.01$, $t = -2.85$, $p = .005$). The link between attributions and views on rehabilitation was stronger for European Americans than Asians/Asian Americans (Table 4; European American vs. Asian/Asian American $B = -0.06$, $SE = 0.02$, $t = -2.85$, $p = .005$). This was qualified by a four-way interaction that we did not expect between culture, attributions, crime severity, and prior criminal record (Table 5; $B = -0.03$, $SE = 0.01$, $t = -2.74$, $p = .006$). The link between attributions and rehabilitation views was significant for all crime severity x prior criminal record vignettes for European Americans, $ps < .032$, but only significant for severe crimes for Asians/Asian Americans, $ps < .014$. The differences between European Americans and Asians/Asian Americans were particularly pronounced for mild and moderate crimes by an offender with no prior record and for severe crimes by an offender with a prior record (Table 6; European American vs. Asian/Asian American: mild, no prior record $p < .001$; moderate, no prior record $p = .073$; severe, prior record $p = .066$; Figure 3A). All other main effects and interaction effects were not significant ($ps > .080$).

In Study 2B, although the interaction between culture and attributions was only marginal ($p = .081$), there was a significant three-way interaction between culture, attributions, and crime severity (Table 5; $B = 0.01$, $SE = 0.01$, $t = 2.10$, $p = .036$). The link between attributions and support for rehabilitation was stronger for European Americans than Asians/Asian Americans, particularly when the crimes were mild. There were no cultural differences in their reliance on attributions for moderate and severe crimes (Table 4; European American vs. Asian/Asian American mild: $B = -0.06$, $SE = 0.02$, $t = -2.85$, $p = .005$; moderate: $B = -0.003$, $SE = 0.02$, $t = -0.17$, $p = .864$; severe: $B = -0.001$, $SE = 0.02$, $t = -0.07$, $p = .943$; Figure 3B). All other main effects and interaction effects were not significant ($ps > .098$).

Table 6. Decomposition of Study 2A culture by causal attribution by crime severity by prior criminal record interaction.

Causal attribution effect divided by Prior criminal record X Crime severity		European American *B* (*SE*)	Asian/Asian American *B* (*SE*)	European American vs. Asian/Asian American *t*
No record	Mild	–0.11 (0.03)***	0.07 (0.04)†	–3.44***
	Moderate	–0.12 (0.03)***	–0.04 (0.03)	–1.79†
	Severe	–0.10 (0.03)***	–0.15 (0.04)***	1.03
Prior record	Mild	–0.09 (0.04)*	–0.04 (0.04)	–0.91
	Moderate	–0.06 (0.03)*	–0.04 (0.04)	–0.37
	Severe	–0.19 (0.03)***	–0.10 (0.04)*	–1.84†

Note. Effect of causal attribution on perceived effectiveness of rehabilitation (vs. retribution) (*B* coefficients), divided by participant culture, crime severity (mild, moderate, and severe), and prior criminal record (no record, prior record) interaction in Study 2A.
†$p < .10$. *$p < .05$. ***$p < .001$.

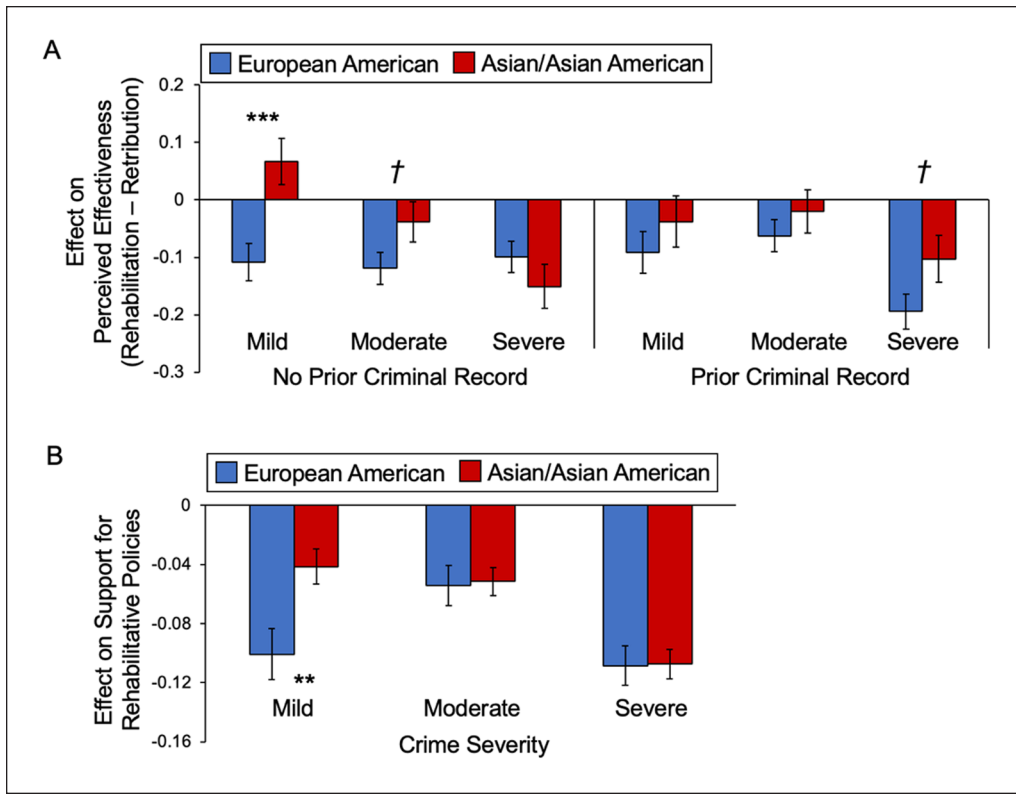

Figure 3. Effect of Causal Attribution on (A) Perceived Effectiveness of Rehabilitation versus Retribution (Study 2A) and (B) Support for Rehabilitation (Study 2B; B coefficients).
Error bars = standard errors.
†$p < .10$. **$p < .01$. ***$p < .001$.

Table 7. Findings on re-offense ratings in Studies 2A and 2B.

Predictor	Study 2A *B* (*SE*)	Study 2B *B* (*SE*)
Culture	–0.003 (0.05)	–0.02 (0.05)
Causal Attribution	0.28 (0.01)***	0.32 (0.01)***
Crime Severity	0.15 (0.03)***	0.11 (0.03)***
Prior Criminal Record	0.59 (0.02)***	0.50 (0.02)***
Culture × Causal Attribution	**0.02 (0.01)***	**0.02 (0.01)***
Culture × Crime Severity	–0.01 (0.03)	0.06 (0.03)*
Culture × Prior Criminal Record	–0.01 (0.02)	0.01 (0.02)
Causal Attribution × Crime Severity	0.03 (0.01)***	0.05 (0.01)***
Causal Attribution × Prior Criminal Record	–0.05 (0.01)***	–0.03 (0.01)*
Crime Severity × Prior Criminal Record	0.003 (0.03)	0.02 (0.03)
Culture × Causal Attribution × Crime Severity	–0.02 (0.01)	0.01 (0.01)
Culture × Causal Attribution × Prior Criminal Record	–0.002 (0.01)	–0.003 (0.01)
Culture × Crime Severity × Prior Criminal Record	0.02 (0.03)	–0.01 (0.03)
Causal Attribution × Crime Severity × Prior Criminal Record	–0.003 (0.01)	0.01 (0.01)
Culture × Causal Attribution × Crime Severity × Prior Criminal Record	–0.00003 (0.01)	–0.0001 (0.01)

Note. *B* coefficients. Significant interactions including participant culture and causal attribution are bolded.
*$p < .05$. ***$p < .001$.

Hypothesis 4: The More Dispositional (vs. Situational) Attributions European Americans (vs. Asians/Asian Americans) Make, the More Likely They Will Think the Offenders Are to Re-offend. To test H4, we conducted another linear mixed-effects regression on participants' vignette-by-vignette likelihood of re-offense ratings. Across two studies, there were main effects of attributions, crime severity, and prior criminal record (Table 7). People rated offenders as more likely to re-offend when they made more dispositional (vs. situational) attributions, for more severe crimes (severe vs. moderate Study 2A $p = .845$, Study 2B $p = .181$; severe vs. mild and moderate vs. mild *ps* $< .001$), and when the offender had a prior criminal record as opposed to no record (Table 3).

In both studies, there were significant interactions between attributions and crime severity and between attributions and prior criminal record (Table 7). The link between attributions and estimates of re-offense was stronger for severe and moderate crimes than mild crimes, as well as when offenders had no prior criminal record than when they had a record (Table 8; Study 2A severe vs. moderate $p = .800$, severe vs. mild $p = .001$, moderate vs. mild $p = .006$; Study 2B severe vs. moderate $p = .805$, severe vs. mild $p < .001$, moderate vs. mild $p = .002$; Study 2A no record vs. record $B = 0.11$, $SE = 0.02$, $t = 6.66$, $p < .001$; Study 2B no record vs. record $B = 0.05$, $SE = 0.02$, $t = 2.56$, $p = .010$).

In Study 2B, but not in Study 2A, there was also a significant interaction between culture and crime severity (Table 7). European Americans thought offenders were more likely to re-offend when the crimes were severe and moderate, whereas Asians/Asian Americans rated them as more likely to re-offend when the crimes were mild. However, all simple effect contrasts between cultures were not significant (*ps* $> .11$) (severe: European American $M = 4.85$, $SE = 0.10$; Asian/Asian American $M = 4.77$, $SE = 0.06$; moderate: European American $M = 4.74$, $SE = 0.10$; Asian/Asian American $M = 4.70$, $SE = 0.06$; mild: European American $M = 4.43$, $SE = 0.10$; Asian/Asian American $M = 4.62$, $SE = 0.06$).

Table 8. Effect of causal attribution on re-offense ratings.

Causal attribution effect divided by		Study 2A B (SE)	Study 2B B (SE)
Crime severity	Mild	0.24 (0.02)***	0.26 (0.02)***
	Moderate	0.30 (0.01)***	0.34 (0.02)***
	Severe	0.31 (0.01)***	0.36 (0.02)***
Prior criminal record	No record	0.33 (0.01)***	0.35 (0.01)***
	Prior record	0.23 (0.01)***	0.30 (0.01)***
Culture	European American	0.30 (0.01)***	0.34 (0.02)***
	Asian/Asian American	0.26 (0.01)***	0.30 (0.01)***

Note. Effect of causal attribution on re-offense ratings (B coefficients) divided by crime severity (mild, moderate, severe), prior criminal record (no record, prior record), and participant culture.
***$p < .001$.

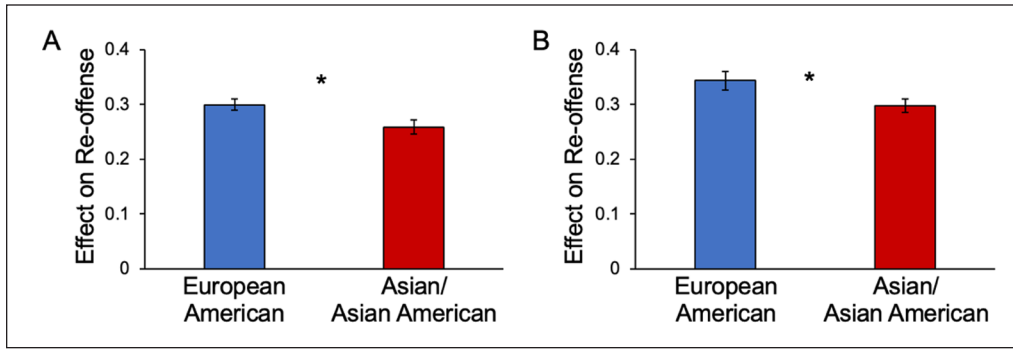

Figure 4. Effect of Causal Attribution on Estimates of Offenders' Likelihood of Re-Offense (B Coefficients) in (A) Study 2A and (B) Study 2B.
Error bars = standard errors.
*$p < .05$.

Importantly, in both studies, there was an interaction between culture and attributions (Table 7; Study 2A: $B = 0.02$, $SE = 0.01$, $t = 2.47$, $p = .014$; Study 2B: $B = 0.02$, $SE = 0.01$, $t = 2.15$, $p = .032$). The link between attributions and people's estimates of the likelihood of re-offense was stronger for European Americans than Asians/Asian Americans (Table 8; European American vs. Asian/Asian American: Study 2A: $B = 0.04$, $SE = 0.02$, $t = 2.47$, $p = .014$; Study 2B: $B = 0.05$, $SE = 0.02$, $t = 2.15$, $p = .032$; Figure 4). All other main effects and interaction effects were not significant ($ps > .11$).

Studies 2A and 2B Discussion

Studies 2A and 2B found that European Americans' attributions were more strongly linked to their judgments of punishment, perceptions of rehabilitation, and estimates of re-offense. The association between causal attributions and judgment of offenders was true for Asian/Asian American participants too, but it was stronger for European Americans. While prior literature has consistently found that causal attribution plays a critical role in the decisions people make about offenders (Carroll et al., 1987; Cushman, 2008), these findings suggest that attributions are more important in some cultures.

Study 3

We designed Study 3 to test whether there are still cultural differences in the importance of causal attribution even *after* the offenders received punishment and rehabilitation. We focused on participants' perception of the offenders' (a) likelihood of re-offense and (b) likelihood of successful re-entry into the society after undergoing punishment and rehabilitation programs for their crimes.

Methods

Participants. Based on the same power analysis as in Studies 1A and 1B, we aimed to recruit a minimum of 198 participants. We oversampled and recruited a total of 391 participants from the UT Dallas student participation pool (15.6% White/Caucasian/European American, 15.1% Hispanic/Latin American, 7.2% Black/African American, 5.9% East Asian/East Asian American, 6.1% Southeast Asian/Southeast Asian American, 32.5% South Asian/South Asian American, 9.5% Middle Eastern/Arab American, 0.3% Native American, 6.4% multiracial, 1.5% other; 68.0% female, 30.4% male, 1.5% other; age $M = 20.29$, $SD = 2.50$). As in Studies 2A and 2B, we focused on people who identified as White/Caucasian/European American ("European American"; $N = 61$) or as either East Asian/East Asian American, Southeast Asian/Southeast Asian American, or South Asian/South Asian American ("Asian/Asian American"; $N = 174$).

Procedure. After providing informed consent, participants saw a total of the 12 vignettes that we used in Studies 2A and 2B in a random order. For each vignette, participants (a) assigned a punishment that they thought the offender deserved for their crime as in Studies 2A and 2B and (b) their support for rehabilitation for the offender as in Study 2B. All participants made punishment ratings first and rehabilitation ratings later. We included these measures to test whether the findings from Studies 2A and 2B replicated with the new sample, which they did (Supplementary Section 7A reports the detailed instructions participants read, and Supplementary Section 7B reports the replication results).

Afterwards, participants saw the same vignettes again. They evaluated how likely each offender was to commit another crime, considering the effectiveness of the punishment and rehabilitation that they had assigned ("After receiving the punishment that you assigned and going through the programs that you supported, how likely is this offender to commit another crime in the future?"). They also evaluated how likely the offender was to reintegrate into the community ("After receiving the punishment that you assigned and going through the programs that you supported, how likely is this offender to reintegrate into their community?"). Participants rated these likelihoods from 1 (*Not at all likely*) to 7 (*Extremely likely*).

Finally, they made dispositional and situational attribution ratings as in Study 2B. Participants then completed the lab's standard battery of questionnaires (Supplementary Section 5A) and demographic questions.

Analyses and Results

Hypothesis 5A: The More Dispositional (vs. Situational) Attributions European Americans (vs. Asians/Asian Americans) Make, the More Likely They Will Think the Offenders Are to Re-offend, Even After the Offenders Receive the Punishment and Rehabilitation for Their Crimes. We ran a linear mixed-effects regression on participants' vignette-by-vignette ratings of the likelihood of re-offense, with culture, attributions, crime severity, and prior criminal record as fixed effects. The interaction terms between these predictors were further included. We also included random effects for individual participants.

Table 9. Findings on re-offense and reintegration ratings in Study 3.

Predictor	Re-offense *B* (*SE*)	Reintegration *B* (*SE*)
Culture	–0.08 (0.08)	0.17 (0.07)*
Causal Attribution	0.21 (0.01)***	–0.21 (0.01)***
Crime Severity	0.15 (0.03)***	–0.35 (0.03)***
Prior Criminal Record	0.39 (0.03)***	–0.20 (0.02)***
Culture × Causal Attribution	0.01 (0.01)	**–0.03 (0.01)***
Culture × Crime Severity	0.08 (0.03)*	–0.07 (0.03)*
Culture × Prior Criminal Record	0.06 (0.03)*	–0.01 (0.02)
Causal Attribution × Crime Severity	0.06 (0.02)***	–0.07 (0.01)***
Causal Attribution × Prior Criminal Record	–0.02 (0.01)	0.004 (0.01)
Crime Severity × Prior Criminal Record	0.002 (0.03)	0.01 (0.03)
Culture × Causal Attribution × Crime Severity	0.01 (0.02)	0.001 (0.01)
Culture × Causal Attribution × Prior Criminal Record	–0.01 (0.01)	–0.02 (0.01)†
Culture × Crime Severity × Prior Criminal Record	–0.01 (0.03)	0.03 (0.03)
Causal Attribution × Crime Severity × Prior Criminal Record	–0.01 (0.02)	0.01 (0.01)
Culture × Causal Attribution × Crime Severity × Prior Criminal Record	0.01 (0.02)	0.01 (0.01)

Note. *B* coefficients. Significant interactions including participant culture and causal attribution are bolded.
†$p < .10$. *$p < .05$. ***$p < .001$.

Table 10. Means and standard errors for re-offense and reintegration ratings.

Ratings divided by		Re-offense *M* (*SE*)	Reintegration *M* (*SE*)
Crime severity	Mild	3.54 (0.09)	4.67 (0.08)
	Moderate	3.84 (0.09)	4.28 (0.08)
	Severe	3.90 (0.09)	3.89 (0.08)
Prior criminal record	No record	3.38 (0.08)	4.48 (0.07)
	Prior record	4.14 (0.08)	4.07 (0.07)

Note. Means and standard errors from the significant crime severity (mild, moderate, severe) and prior criminal record (no record, prior record) effects on re-offense and reintegration ratings in Study 3.

There were main effects of attributions, crime severity, and prior criminal record (Table 9). Participants rated the offenders as more likely to re-offend when they made more dispositional (vs. situational) attributions, when the offenders committed more severe crimes (severe vs. moderate $p = .527$; severe vs. mild and moderate vs. mild $ps < .001$), and when the offenders had a prior criminal record versus no record (Table 10).

There were significant interactions between culture and crime severity and between culture and prior criminal record (Table 9). Asians/Asian Americans perceived offenders who committed a mild crime, as well as those who had no prior criminal record, as more likely to re-offend than European Americans (mild crime: European American: $M = 3.34$, $SE = 0.15$; Asian/Asian American: $M = 3.73$, $SE = 0.09$, European American vs. Asian/Asian American $p = .027$; for moderate and severe crimes, $ps > .753$; no record: European American: $M = 3.24$, $SE = 0.14$, Asian/Asian American: $M = 3.51$, $SE = 0.08$, although European American vs. Asian/Asian American was only directional, $p = .100$; for offenders with a prior criminal record, $p = .814$).

Table 11. Effect of causal attribution on re-offense and reintegration ratings.

Causal attribution effect divided by		Re-offense B (SE)	Reintegration B (SE)
Crime severity	Mild	0.13 (0.02)***	–0.13 (0.02)***
	Moderate	0.23 (0.02)***	–0.21 (0.02)***
	Severe	0.26 (0.02)***	–0.28 (0.02)***
Culture	European American	-	–0.24 (0.02)***
	Asian/Asian American	-	–0.18 (0.01)***

Note. Effect of causal attribution on re-offense and reintegration ratings (B coefficients) divided by crime severity (mild, moderate, severe) and participant culture in Study 3. Empty cells mean the corresponding interaction was not significant. ***$p < .001$.

An interaction between attributions and crime severity (Table 9) revealed that the link between attributions and perceived likelihood of re-offense was stronger for severe and moderate crimes than mild crimes (Table 11; severe vs. moderate $p = .644$; severe vs. mild $p < .001$; moderate vs. mild $p = .004$).

There were no other significant main effects or interaction effects, ($ps > .115$). The key test of the hypothesis was the interaction between culture and attributions, which was not significant, including any other 3-way or 4-way interactions involving culture and attributions ($ps > .611$). In other words, when prompted to consider that the offenders had received the punishment and undergone the rehabilitation that the participants had assigned, we found no evidence that European Americans and Asians/Asian Americans differ in their consideration of causal attribution to estimate the offenders' likelihood of re-offense.

Hypothesis 5B: The More Dispositional (vs. Situational) Attributions European Americans (vs. Asians/Asian Americans) Make, the Less Likely They Are to View the Offenders as Able to Re-Enter the Community After Receiving Punishment and Rehabilitation. We conducted another linear mixed-effects regression on participants' vignette-by-vignette likelihood of reintegration ratings. There were main effects of culture, attributions, crime severity, and prior criminal record (Table 9). Offenders were rated as more likely to reintegrate into their community by European Americans than by Asians/Asian Americans (European American $M = 4.43$, $SE = 0.12$; Asian/Asian American $M = 4.13$, $SE = 0.07$), when participants made less dispositional (vs. situational) attributions, when offenders committed milder crimes (severe vs. moderate vs. mild $ps < .001$), and when they had no criminal record versus had a record (Table 10).

There was an interaction between culture and crime severity (Table 9). Asians/Asian Americans rated the offenders who committed mild and moderate crimes as less likely to reintegrate into the community than European Americans (European American vs. Asian/Asian American: mild $B = 0.47$, $SE = 0.15$, $t = 3.11$, $p = .002$; moderate $B = 0.28$, $SE = 0.15$, $t = 1.83$, $p = .069$; severe $B = 0.18$, $SE = 0.15$, $t = 1.19$, $p = .234$). There was also an interaction between attributions and crime severity (Table 9). The link between attributions and ratings of reintegration was strongest for severe crimes, followed by moderate and then by mild (Table 11; severe vs. moderate $p = .033$, severe vs. mild $p < .001$, moderate vs. mild $p = .016$).

Importantly, there was an interaction between culture and attributions (Table 9; $B = -0.03$, $SE = 0.01$, $t = -2.43$, $p = .015$). The link between attributions and reintegration ratings was stronger for European Americans than Asians/Asian Americans (Table 11; European American vs. Asian/Asian American $B = -0.06$, $SE = 0.03$, $t = -2.43$, $p = .015$; Figure 5).

This effect was qualified by a marginal interaction between culture, attributions, and prior criminal record (Table 9; $p = .066$), such that the stronger link between attributions and

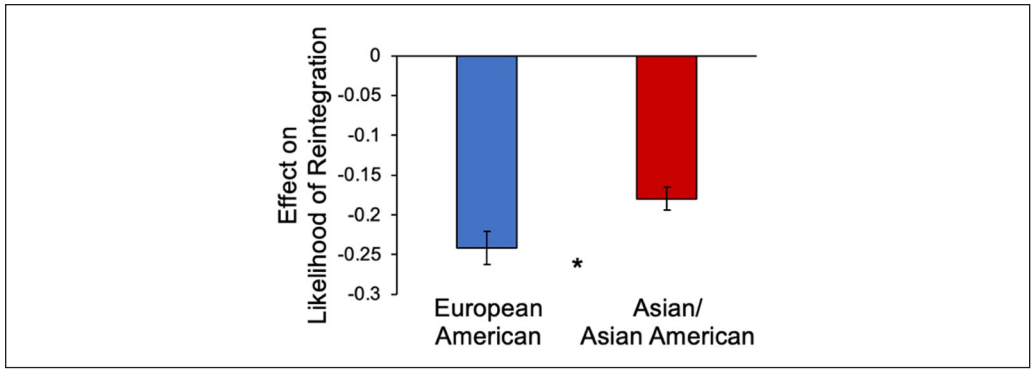

Figure 5. Effect of Causal Attribution on Perceived Likelihood of Offender Reintegration (B Coefficients).
Error bars = standard errors.
*$p < .05$.

reintegration for European Americans was more pronounced when the offenders had a prior criminal record (European American vs. Asian/Asian American prior record $B = -0.10$, $SE = 0.04$, $t = -2.94$, $p = .003$; no record $B = -0.02$, $SE = 0.03$, $t = -0.60$, $p = .551$). All other main effects and interaction effects were not significant ($ps > .301$).

Study 3 Discussion

In Study 3, we tested whether cultural differences in the extent to which people consider causal attribution persist after the offenders received punishment and underwent rehabilitative programs. The link between attributions and estimates of re-offense was similar for European Americans and Asians/Asian Americans, but European Americans still weighted attributions more strongly in their estimates of reintegration. Even though cultural differences did not emerge when people simply judged the possibility of re-offense, culture still shaped their consideration of causal factors in offenders' past crimes when it came to more fundamental reformation of offenders.

General Discussion

Across three studies, we found that people from interdependent cultures (i.e., Asians/Asian Americans) rely on causal attribution less than people from independent cultures (i.e., European Americans) when determining their response to offenders. For more interdependent participants, their dispositional versus situational attributions were associated less strongly with their judgments of blameworthiness (Studies 1A, 1B), punishment (Studies 2A, 2B), support for rehabilitation (Studies 2A, 2B), and the perceived likelihood of offenders' re-offense (Studies 2A, 2B).

There was also some evidence that the differences were stronger in some situations and weaker in others. The differences in punishment judgments were more pronounced for moderate and severe crimes (Study 2B). Differences in people's support for rehabilitation were more pronounced for mild crimes (Studies 2A, 2B). These results are exploratory and require more research.

Furthermore, we found that these effects varied after participants learned that the offenders had received the punishment and undergone rehabilitation. There were no cultural differences in how much people considered the causal drivers of the offenders' past crimes when judging how

likely they were to re-offend, but there were still cultural differences in people's judgments of how likely offenders would be able to successfully re-enter the community (Study 3). Even after the punishment and rehabilitative effort for the offenders had been delivered, European Americans still seemed to consider causal factors that contributed to their past crimes more strongly than Asians/Asian Americans. This might be driven by their belief that the contributors to past behaviors should remain relevant in the future (Ji, 2008; Ji et al., 2001). These findings suggest that even if offenders are ready to make a fresh start, their past behaviors may have a lasting impact on how they are viewed when they attempt to return to society in more independent cultures.

A Model of Cultural Differences in Attribution and Punishment

These findings help fill a gap in the research, which has yet to find cultural differences in people's punishment judgments related to their situational attributions. It is logical to think that people who make situational attributions for crimes should punish less and support rehabilitation more (Carroll et al., 1987; Cullen et al., 1985; Sims, 2003). But even though people in interdependent cultures presumably make more situational attributions, they still ascribe as much (or more) blame and assign as harsh (or harsher) punishment than people in independent cultures. Prior work attempted to address this by contrasting the extent to which people from different cultures rely on their speculations of the amount of free will others had versus how much their behaviors disrupted social harmony (Feinberg et al., 2019). Another study investigated this question in the context of everyday misbehaviors (Salvador et al., 2024). However, we found no studies testing for cultural differences in reliance on causal attribution per se in the context of crime.

We proposed a framework to explain the cultural misalignment between attribution and punishment. Although causal attributions do inform people about how to react to criminal acts, they are not as critical for those with Asian heritage. Thus, it is not contradictory for them to make situational attributions about the crimes and still harshly punish them. Instead, their judgments may be more closely tied to disruptions to social harmony (Feinberg et al., 2019), violations of social norms (Shteynberg et al., 2009), and perceptions of collective anger (i.e., how others in society react to the behavior; Kwan, 2016). It should be noted that this current study still remains speculative about why people from interdependent cultures tend to be more punitive than those from independent cultures. Although these listed contributors may come into play, future research is required to clarify the underlying mechanisms.

These findings address a few important gaps in the literature. First, expanding the criminal justice literature, we suggest that the well-established relationship between causal attribution and punitive decisions would be a better description of people from some cultural backgrounds than others. This may be a bit of a blind spot in the research world because most of the research comes from researchers and participants in Western cultures (Rad et al., 2018).

Second, the question of how people from different cultures perceive rehabilitation policies has been understudied, despite the fact that rehabilitation is a critical strategy in most justice systems around the globe (Cullen & Gendreau, 2000; MacKenzie, 2001; Weiner et al., 1997). The findings here provide an early step in understanding cultural differences in perceptions of rehabilitation.

Third, this study revealed that culture shapes people's perception of offenders' likelihood of reintegration even after the offender had been presumably punished as much as the participant said was appropriate and undergone the rehabilitative programs. That is important because it may provide the theoretical basis to understand the potentially different policies and strategies to promote offenders' reintegration in different societies. For example, many rehabilitative programs in individualistic cultures such as the United States and the United Kingdom focus heavily on the offenders' deficits rather than their strengths (Burnett & Maruna, 2006; Fox, 2014). This may be driven by the perception that the causal contributors to the offenders' past crimes (thus their deficits) still

play a role in their reintegration success. Future research should investigate if any societal-level differences in reintegration support and policies can be accounted for by cultural differences.

Fourth, these findings bring up a possibility that the concept of justice itself may differ across cultures. For example, people in independent cultures might see justice systems as more fair if those systems react to offenders in a way that reflects the causal reasoning of crimes. This study further questions if professionals in the justice system would leverage causal reasoning any differently compared to naïve individuals. We found that the more the offenders seemed unmalleable, that is, when their crimes were dispositionally attributed, when they committed severe crimes, and when they had a prior criminal record, participants supported rehabilitation less. However, these offenders may be those who need greater rehabilitative effort, and professionals may consider various elements of criminal acts in a different manner than naïve individuals when determining their reactions. This may create a gap between what is needed to be delivered by the justice system and what naïve individuals perceive as fair.

Limitations

This study has limitations that are worth addressing in future research. First, the scenarios we used did not highlight situational causes of people's behavior. The scenarios also did not prompt participants to consciously reflect on the causes of people's behaviors before making their judgments. This could be important because previous studies have found that Asians make similar attributions as Americans, that is, predominantly infer dispositional, rather than situational, contributors, in the absence of salient situational cues (Choi & Nisbett, 1998; Di et al., 2021; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002; Norenzayan et al., 2002). Consistent with this, we only found the predicted cultural differences in attributions in limited cases, such as when the offenders had a prior criminal record in Studies 2A and 2B (Supplementary Section 8), despite the fact that European Americans indeed scored as more independent and less interdependent than Asians/Asian Americans (Supplementary Section 5A).

Even though we found that these similar attributions can be used differently depending on people's cultural backgrounds, there is a valuable empirical question here. If we prime people to consider the causal reasoning behind offenders' behaviors (especially situational factors), would that make interdependent people focus more on situational attributions and incorporate them into their punitive judgments compared to independent ones? Although there have been no systematic examinations on this, some studies offer initial support for this hypothesis. One study found that when people were led to think of the dispositional and situational causes of others' behaviors, interdependent participants relied on situational attributions more in their judgments of blame than independent participants (Park & Smith, 2023). When the external forces on the protagonist's behavior were clearly made salient (e.g., someone engaged in a fraudulent act due to their supervisor's request or financial pressure), Chinese perceived the protagonist as less immoral than when the situational forces were weak (Wong-On-Wing & Lui, 2007, 2013).

Second, across all studies, participants first reported their responses to the offenders (e.g., punishment, rehabilitative support), then causal attributions. This order might make people feel the need to rationalize their punitive decisions through their causal reasoning. The need for rationalization for one's decision is stronger with Americans rather than with Asians (Hoshino-Browne, 2012; Hoshino-Browne et al., 2005), which may explain the greater alignment between causal attribution and punitive reactions among European Americans in this study.

Third, studies have questioned the use of self-report scales to measure cultural differences, especially given that the East-West differences in interdependence often did not emerge using these scales (Heine et al., 2002; Oyserman et al., 2002; Talhelm, 2019). Most self-construal scales use broad relationship terms, like "others," but tight social ties in interdependent cultures

may be limited to close relationships (English et al., 2023). Although the studies here found converging evidence of cultural differences in independence versus interdependence using the traditional scales, having more accurate self-report measures of interdependence might reveal more insights into the role of culture in causal attributions and criminal justice.

Finally, our study focused on Asians/Asian Americans and European Americans. We did this because it allowed us to build on earlier studies that have contrasted Western and East Asian cultures. However, it would be valuable to expand the research to many other collectivistic cultures, such as Latin American, Middle Eastern, and African cultures, as well as more cultural groups within the United States (Al-Zahrani & Kaplowitz, 1993; de Oliveira & Nisbett, 2017; Lin et al., 2023; Trierweiler et al., 2005). Since the specific characteristics of interdependence can vary (Adams et al., 2012; Krys et al., 2022), the reduced reliance on causal attribution that we found with Asians/Asian Americans may show different patterns in other interdependent groups.

Conclusion

Together, these findings suggest that culture shapes how people ascribe blame and punishment, how they think about rehabilitation, and how they estimate the chances that offenders will be able to re-enter society. Causal attribution for immoral behaviors and crimes is one of the most-studied mechanisms in how people make those decisions. Yet the results here suggest that cultures differ in how they use causal attribution. These findings suggest a new line of research that challenges the most common models of punitive decision-making and support for rehabilitation.

Acknowledgments

The authors would like to thank SPRING Lab at UT Dallas for their feedback on an earlier version of this paper.

Data Availability Statement

Data are available at https://osf.io/sq9tk/files/osfstorage.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Ethical Considerations

All studies were approved by the Institutional Review Board at the University of Texas at Dallas.

Consent to Participate

Participants provided their informed consent before beginning the studies.

ORCID iDs

BoKyung Park https://orcid.org/0000-0001-5079-1523
Swathi Vepachedu https://orcid.org/0009-0008-5683-3008
Grace Elizabeth Ornelas https://orcid.org/0009-0008-1933-4998
Thomas Tahlem https://orcid.org/0000-0002-0954-5758

Supplemental Material

Supplemental material for this article is available online.

References

Adams, B. G., Van de Vijver, F. J., & De Bruin, G. P. (2012). Identity in South Africa: Examining self-descriptions across ethnic groups. *International Journal of Intercultural Relations*, *36*(3), 377–388.

Alicke, M. D. (2000). Culpable control and the psychology of blame. *Psychological Bulletin*, *126*(4), 556.

Al-Zahrani, S. S. A., & Kaplowitz, S. A. (1993). Attributional biases in individualistic and collectivistic cultures: A comparison of Americans with Saudis. *Social Psychology Quarterly*, *56*, 223–233.

Amnesty International. (2023). *Amnesty international report 2022/23: The state of the world's human rights*. https://www.amnesty.org/en/documents/pol10/5670/2023/en/

Barrett, H. C., Bolyanatz, A., Crittenden, A. N., Fessler, D. M., Fitzpatrick, S., Gurven, M., . . .Laurence, S. (2016). Small-scale societies exhibit fundamental variation in the role of intentions in moral judgment. *Proceedings of the National Academy of Sciences*, *113*(17), 4688–4693.

Bender, A., Beller, S., & Medin, D. L. (2017). Causal cognition and culture. In M. R. Waldmann (Ed.), *The Oxford handbook of causal reasoning* (pp. 717–738). Oxford Academic.

Bernard, J., Haas, K., Siler, B., & Weatherby, G. A. (2017). Perceptions of rehabilitation and retribution in the criminal justice system: A comparison of public opinion and previous literature. *Journal of Forensic Science and Criminal Investigation*, *5*(3). https://doi.org/10.19080/JFSCI.2017.05.555669

Bersoff, D. M., & Miller, J. G. (1993). Culture, context, and the development of moral accountability judgments. *Developmental Psychology*, *29*(4), 664–676. https://doi.org/10.1037/0012-1649.29.4.664

Blum, A. W., & Ross, D. A. (2022). Lifting the veil: How the brain decides blame and punishment. *Biological Psychiatry*, *91*(9). https://doi.org/10.1016/j.biopsych.2022.01.017

Burnett, R., & Maruna, S. (2006). The kindness of prisoners: Strengths-based resettlement in theory and in action. *Criminology & Criminal Justice*, *6*(1), 83–106.

Caplan, J. M. (2007). What factors affect parole: A review of empirical research. *Federal Probation*, *71*(1), 16–19.

Carlsmith, K. M. (2006). The roles of retribution and utility in determining punishment. *Journal of Experimental Social Psychology*, *42*(4), 437–451.

Carroll, J. S. (1978). Causal attributions in expert parole decisions. *Journal of Personality and Social Psychology*, *36*(12), 1501.

Carroll, J. S. (1979). Judgments by parole boards. In H. Frieze, D. Bar-Tal, & J. S. Carroll (Eds.), *New approaches to social problems: Applications of attribution theory* (pp. 285–308). Jossey-Bass.

Carroll, J. S., & Payne, J. W. (1977a). Crime seriousness, recidivism risk, and causal attributions in judgments of prison term by students and experts. *Journal of Applied Psychology*, *62*(5), 595–602. https://doi.org/10.1037/0021-9010.62.5.595

Carroll, J. S., & Payne, J. W. (1977b). Judgments about crime and the criminal: A model and a method for investigating parole decisions. In *The criminal justice system* (pp. 191–239). Springer US.

Carroll, J. S., Perkowitz, W. T., Lurigio, A. J., & Weaver, F. M. (1987). Sentencing goals, causal attributions, ideology, and personality. *Journal of Personality and Social Psychology*, *52*(1), 107.

Choi, I., Dalal, R., Kim-Prieto, C., & Park, H. (2003). Culture and judgment of causal relevance. *Journal of Personality and Social Psychology*, *84*, 46–59. https://doi.org/10.1037/0022-3514.84.1.46

Choi, I., & Nisbett, R. E. (1998). Situational salience and cultural differences in the correspondence bias and actor-observer bias. *Personality and Social Psychology Bulletin*, *24*, 949–960. https://doi.org/10.1177/0146167298249003

Choi, I., & Nisbett, R. E. (2000). Cultural psychology of surprise: Holistic theories and recognition of contradiction. *Journal of Personality and Social Psychology*, *79*(6), 890–905. https://doi.org/10.1037/0022-3514.79.6.890

Cochran, J. K., Boots, D. P., & Chamlin, M. B. (2006). Political identity and support for capital punishment: A test of attribution theory. *Journal of Crime and Justice*, *29*(1), 45–79.

Cullen, F. T., Clark, G. A., Cullen, J. B., & Mathers, R. A. (1985). Attribution, salience, and attitudes toward criminal sanctioning. *Criminal Justice and Behavior*, *12*(3), 305–331.

Cullen, F. T., & Gendreau, P. (2000). Assessing correctional rehabilitation: Policy, practice, and prospects. *Criminal Justice*, *3*(1), 299–370.

Curtin, C. M., Barrett, H. C., Bolyanatz, A., Crittenden, A. N., Fessler, D. M., Fitzpatrick, S., . . .Henrich, J. (2020). Kinship intensity and the use of mental states in moral judgment across societies. *Evolution and Human Behavior*, *41*(5), 415–429.

Cushman, F. (2008). Crime and punishment: Distinguishing the roles of causal and intentional analyses in moral judgment. *Cognition*, *108*, 353–380. https://doi.org/10.1016/j.cognition.2008.03.006

Darley, J. M., Carlsmith, K. M., & Robinson, P. H. (2000). Incapacitation and just deserts as motives for punishment. *Law and Human Behavior*, *24*, 659–683.

de Oliveira, S., & Nisbett, R. E. (2017). Beyond east and west: Cognitive style in Latin America. *Journal of Cross-Cultural Psychology*, *48*(10), 1554–1577.

Di, M., Wang, X., Zhao, J., Feng, W., Zhao, J., Nguyen, K., & Wang, Y. (2021). Correspondence bias of Chinese and American undergraduates: Similar initial trait attributions but different situational corrections. *The Journal of General Psychology*, *148*, 105–123. https://doi.org/10.1080/00221309.2019.1703632

English, A. S., Wang, S., Zhang, Q., & Talhelm, T. (2023). Cultural traits or social norms? Both responsibilism and norms linked to accepting COVID-19 vaccine. *Social and Personality Psychology Compass*, *17*(8), e12791.

Falco, D. L., & Turner, N. C. (2014). Examining causal attributions towards crime on support for offender rehabilitation. *American Journal of Criminal Justice*, *39*, 630–641.

Federal Bureau of Investigation. (2004). *Uniform crime reporting handbook*. U.S. Department of Justice. https://ucr.fbi.gov/additional-ucr-publications/ucr_handbook.pdf

Feinberg, M., Fang, R., Liu, S., & Peng, K. (2019). A world of blame to go around: Cross-cultural determinants of responsibility and punishment judgments. *Personality and Social Psychology Bulletin*, *45*, 634–651. https://doi.org/10.1177/0146167218794631

Fox, K. J. (2014). Restoring the social: Offender reintegration in a risky world. *International Journal of Comparative and Applied Criminal Justice*, *38*(3), 235–256.

Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., & Yamaguchi, S. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, *332*(6033), 1100–1104.

Harrington, J. R., & Gelfand, M. J. (2014). Tightness–looseness across the 50 United States. *Proceedings of the National Academy of Sciences*, *111*(22), 7990–7995.

Heine, S. J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with crosscultural comparisons of subjective Likert scales? The reference-group effect. *Journal of Personality and Social Psychology*, *82*(6), 903–918. https://doi.org/10.1037/0022-3514.82.6.903

Hong, Y.-Y., Benet-Martinez, V., Chiu, C.-Y., & Morris, M. W. (2003). Boundaries of cultural influence: Construct activation as a mechanism for cultural differences in social perception. *Journal of Cross-Cultural Psychology*, *34*(4), 453–464. https://doi.org/10.1177/0022022103034004005

Hoshino-Browne, E. (2012). Cultural variations in motivation for cognitive consistency: Influences of self-systems on cognitive dissonance. *Social and Personality Psychology Compass*, *6*(2), 126–141.

Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the cultural guises of cognitive dissonance: The case of Easterners and Westerners. *Journal of Personality and Social Psychology*, *89*(3), 294.

Jacobs, D., & Carmichael, J. T. (2002). The political sociology of the death penalty: A pooled time-series analysis. *American Sociological Review*, *67*(1), 109–131.

Jacobs, D., & Carmichael, J. T. (2004). Ideology, social threat, and the death sentence: Capital sentences across time and space. *Social Forces*, *83*(1), 249–278.

Ji, L. J. (2008). The leopard cannot change his spots, or can he? Culture and the development of lay theories of change. *Personality and Social Psychology Bulletin*, *34*(5), 613–622.

Ji, L. J., Guo, T., Zhang, Z., & Messervey, D. (2009). Looking into the past: Cultural differences in perception and representation of past information. *Journal of Personality and Social Psychology*, *96*(4), 761.

Ji, L. J., Nisbett, R. E., & Su, Y. (2001). Culture, change, and prediction. *Psychological Science*, *12*(6), 450–456.

Kim, M. J., Mende-Siedlecki, P., Anzellotti, S., & Young, L. (2021). Theory of mind following the violation of strong and weak prior beliefs. *Cerebral Cortex*, *31*, 884–898. https://doi.org/10.1093/cercor/bhaa263

Kitayama, S., Ishii, K., Imada, T., Takemura, K., & Ramaswamy, J. (2006). Voluntary settlement and the spirit of independence: Evidence from Japan's "Northern frontier." *Journal of Personality and Social Psychology*, *91*(3), 369.

Knowles, E. D., Morris, M. W., Chiu, C., & Hong, Y. (2001). Culture and the process of person perception: Evidence for automaticity among East Asians in correcting for situational influences on behavior. *Personality and Social Psychology Bulletin*, *27*, 1344–1356. https://doi.org/10.1177/01461672012710010

Krys, K., Vignoles, V. L., De Almeida, I., & Uchida, Y. (2022). Outside the "cultural binary": Understanding why Latin American collectivist societies foster independent selves. *Perspectives on Psychological Science*, *17*(4), 1166–1187.

Kwan, L. Y. Y. (2016). Anger and perception of unfairness and harm: Cultural differences in normative processes that justify sanction assignment. *Asian Journal of Social Psychology*, *19*(1), 6–15.

Lagnado, D. A., & Gerstenberg, T. (2017). Causation in legal and moral reasoning. In M. R. Waldmann (Ed.), *The Oxford handbook of causal reasoning* (pp. 565–602). Oxford Academic.

Lee, F., Hallahan, M., & Herzog, T. (1996). Explaining real-life events: How culture and domain shape attributions. *Personality and Social Psychology Bulletin*, *22*(7), 732–741. https://doi.org/10.1177/0146167296227007

Lin, M., Ramírez-Esparza, N., & Pascual y Cabo, D. (2023). Latinx's attention to social context: A comparison with European Americans and East Asians living in the U.S. *Journal of Ethnic and Cultural Studies*, *10*(2), 1–21. https://www.jstor.org/stable/48728398

MacKenzie, D. L. (2001). Corrections and sentencing in the 21st century: Evidence-based corrections and sentencing. *The Prison Journal*, *81*(3), 299–312.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224–253. https://doi.org/10.1037/0033-295X.98.2.224

Markus, H. R., & Kitayama, S. (2003). Models of agency: Sociocultural diversity in the construction of action. In V. Murphy-Berman & J. J. Berman (Eds.), *Vol. 49 of the Nebraska symposium on motivation. Cross-cultural differences in perspectives on the self* (pp. 18–74). University of Nebraska Press.

Masuda, T., & Kitayama, S. (2004). Perceiver-induced constraint and attitude attribution in Japan and the US: A case for the cultural dependence of the correspondence bias. *Journal of Experimental Social Psychology*, *40*, 409–416. https://doi.org/10.1016/j.jesp.2003.08.004

McNamara, R. A., Willard, A. K., Norenzayan, A., & Henrich, J. (2019). Weighing outcome vs. intent across societies: How cultural models of mind shape moral reasoning. *Cognition*, *182*, 95–108.

Mesquita, B., & Markus, H. R. (2004). Culture and emotion: Models of agency as sources of cultural variation in emotion. In A. S. R. Manstead, N. Frijda, & A. Fischer (Eds.), *Feelings and emotions: The Amsterdam symposium* (pp. 341–358). Cambridge University Press. https://doi.org/10.1017/CBO9780511806582

Miller, F. D., Smith, E. R., & Uleman, J. (1981). Measurement and interpretation of situational and dispositional attributions. *Journal of Experimental Social Psychology*, *17*(1), 80–95.

Miller, J. G., & Luthar, S. (1989). Issues of interpersonal responsibility and accountability: A comparison of Indians' and Americans' moral judgements. *Social Cognition*, *7*(3), 237–261. https://doi.org/10.1521/soco.1989.7.3.237

Miyamoto, Y., & Kitayama, S. (2002). Cultural variation in correspondence bias: The critical role of attitude diagnosticity of socially constrained behavior. *Journal of Personality and Social Psychology*, *83*, 1239–1248. https://doi.org/10.1037/0022-3514.83.5.1239

Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, *67*, 949–971. https://doi.org/10.1037/0022-3514.67.6.949

Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, *108*, 291–310. https://doi.org/10.1037/0033-295X.108.2.291

Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inference: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin*, *28*, 109–120. https://doi.org/10.1177/0146167202281010

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*(1), 3–72. https://psycnet.apa.org/record/2002-00183-001

Park, B., & Smith, V. R. (2023). Blame and praise cross-culturally: An fMRI investigation into causal attribution and moral judgment. *Biological Psychology*, *184*, 108713.

Peng, K., & Knowles, E. D. (2003). Culture, education, and the attribution of physical causality. *Personality and Social Psychology Bulletin*, *29*(10), 1272–1284.

Pickett, J. T., & Baker, T. (2014). The pragmatic American: Empirical reality or methodological artifact? *Criminology*, *52*(2), 195–222.

Rad, M. S., Martingano, A. J., & Ginges, J. (2018). Toward a psychology of Homo sapiens: Making psychological science more representative of the human population. *Proceedings of the National Academy of Sciences*, *115*(45), 11401–11405.

Riemer, H., Shavitt, S., Koo, M., & Markus, H. R. (2014). Preferences don't have to be personal: Expanding attitude theorizing with a cross-cultural perspective. *Psychological Review*, *121*(4), 619.

Rothman, D. J. (1980). Conscience and convenience: The asylum and its alternatives in progressive America. *Michigan Law Review*, *79*, 916.

Salvador, C. E., White, C. J., & Ai, T. (2024). Who is your biggest critic? Cultural variation in moral judgments of the self and others. *Journal of Cross-Cultural Psychology*, *55*(5), 535–552.

Shteynberg, G., Gelfand, M. J., & Kim, K. (2009). Peering into the "magnum mysterium" of culture: The explanatory power of descriptive norms. *Journal of Cross-Cultural Psychology*, *40*(1), 46–69.

Sims, B. (2003). The impact of causal attribution on correctional ideology: A national study. *Criminal Justice Review*, *1*, 1–25.

Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, *20*(5), 580–591. https://doi.org/10.1177/0146167294205014

Storms, M. D. (1973). Videotape and the attribution process: Reversing actors' and observers' points of view. *Journal of Personality and Social Psychology*, *27*(2), 165.

Talhelm, T. (2019). Why your understanding of collectivism is probably wrong. *APS Observer*, *32*.

Trierweiler, S. J., Muroff, J. R., Jackson, J. S., Neighbors, H. W., & Munday, C. (2005). Clinician race, situational attributions, and diagnoses of mood versus schizophrenia disorders. *Cultural Diversity and Ethnic Minority Psychology*, *11*(4), 351–364.

Unnever, J. D., Cullen, F. T., & Jones, J. D. (2008). Public support for attacking the "root causes" of crime: The impact of egalitarian and racial beliefs. *Sociological Focus*, *41*(1), 1–33.

Wang, Y. M., Wang, F. Y., Talhelm, T., & Chen, Y. Q. (2025). New evidence finds young people in Mainland China are now bicultural. *British Journal of Psychology*, *116*, 460–483.

Weiner, B., Graham, S., & Reyna, C. (1997). An attributional examination of retributive versus utilitarian philosophies of punishment. *Social Justice Research*, *10*, 431452. https://doi.org/10.1007/BF02683293

Wong-On-Wing, B., & Lui, G. (2007). Culture, implicit theories, and the attribution of morality. *Behavioral Research in Accounting*, *19*, 231–246. https://doi.org/10.2308/bria.2007.19.1.231

Wong-On-Wing, B., & Lui, G. (2013). Beyond cultural values: An implicit theory approach to cross-cultural research in accounting ethics. *Behavioral Research in Accounting*, *25*, 15–36. https://doi.org/10.2308/bria-10315

Woolfolk, R. L., Doris, J. M., & Darley, J. M. (2006). Identification, situational constraint, and social cognition: Studies in the attribution of moral responsibility. *Cognition*, *100*(2), 283–301.

Young, R. L. (1991). Race, conceptions of crime and justice, and support for the death penalty. *Social Psychology Quarterly*, *54*, 67–75.