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Beliefs in inevitable justice curb revenge behaviours: Cultural perspectives on karma

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Abstract

Across cultures, people believe that moral actions have 'karmic' consequences. Do cultures share assumptions about how karma operates? Four studies ($N = 1114$) assessed cultural differences in perceptions of inevitability associated with karmic justice and whether perceiving karma as inevitable curbs antisocial behaviours, such as revenge. Study 1 found that Indians perceived karmic justice as more inevitable than Americans and reported lower revenge. Studies 2–3 manipulated whether participants saw karmic justice as inevitable (vs. probable), finding that both Indians and Americans in the inevitable justice condition reported lower revenge. Study 3 found that perceived punishment certainty for oneself (for enacting revenge) rather than perceived punishment certainty for the offender (for the offence) better explained condition differences in revenge. Study 4 uncovered that reincarnation belief related to, and explained, cultural differences in inevitable karmic justice, which subsequently curbed revenge. Research on karma can uncover a range of cultural differences in psychological functioning.

KEYWORDS
fate, imminent justice, just world, karma, revenge

1 | INTRODUCTION

Beliefs in 'karma' where bad (good) outcomes follow bad (good) actions have been observed universally across cultures in research on imminent justice, ultimate justice, just world beliefs, fate judgments, and in several anthropological studies in Asian and African cultures (Abarbanell & Hauser, 2010; Callan et al., 2014; Evans-Pritchard & Gillies, 1937; Horton, 1967; Menon, 2013; Risen, 2016; Shweder et al., 1997; Turner, 1969; C. White et al., 2017; Young et al., 2011). However, there is limited research on how people interpret the general notion of 'karma'. Do people see karmic consequences as fixed and inevitable or as likely and probable? And does seeing karmic consequences as inevitable influence moral behaviour? In this investigation, we assess cultural differences in perceptions of inevitability associated with 'karma', explore the role of reincarnation beliefs in contributing to cultural differences, and identify one important psychological outcome

associated with perceiving karmic justice as inevitable: resistance to revenge.

1.1 | Culture and revenge

Dozens of wars between nations have been fought on the basis of revenge. As the act of returning harm for harm received, revenge has been observed universally across cultures (McCullough et al., 2011, 2013). But is revenge endorsed to the same extent across cultures? One prominent example of a nation's large-scale resistance to revenge is the non-violent 'battle' fought against British colonialism in India. During this battle, Gandhi, the pioneer of the Independence Movement, motivated millions of Indians to 'refrain from any violence against the enemy' and instead to maintain a non-violent stance towards attaining freedom. Gandhi's opposition to revenge is seen

clearly in his public speeches where he motivated people to 'turn the other cheek', and in his freedom movement slogan, 'An eye for an eye will make the whole world blind' (Fischer, 1950; Gandhi, 1951). Which latent cultural beliefs may have supported Gandhi's ability to motivate millions of people to refrain from revenge?

There is a dearth of research on cultural influences on revenge behaviours, with existing studies pointing to mixed findings. Some work suggests that altruistic revenge is more likely to occur in collectivist than in individualist cultures (Gelfand et al., 2012). Other research, however, finds no cultural differences in revenge intentions between collectivist and individualist cultures (Tinsley & Weldon, 2003). These research programmes, however, have assessed culture at the level of self-construal (e.g., individualism/independence vs. collectivism/interdependence) and thus do not assess whether individual differences in beliefs about karma (that cut across dichotomies of individualism and collectivism) may have accounted for the cultural differences observed. The present research goes beyond this past work by assessing whether within-culture and between-culture individual differences in perceptions of karma as inevitable influence attitudes towards revenge.

1.2 | What is karma?

Believing in karma entails the general belief that 'we reap what we sow'. That is, the belief that good actions are rewarded and bad actions are punished (Shweder et al., 1997; C. J. White, Norenzayan, et al., 2019). Although conceptually distinct due to its religious and cultural origins, the notion of karma shares considerable conceptual overlap with the notion of the 'just world', the belief that people get what they deserve and deserve what they get (Lerner, 1980; White et al., 2017; White et al., 2019). Both constructs entail the idea that bad (good) actions result in bad (good) outcomes and both types of beliefs are motivated by the desire to see order in the world (C. J. White, Kelly et al., 2019).

In psychological literature, just world and/or karmic beliefs are considered forms of 'magical' thinking, often seen as synonymous with beliefs in cosmic or supernatural justice. However, in Hindu texts, beliefs in karmic justice are not restricted solely to supernatural intervention, and can in fact involve punishment from society, due to chance, even self-imposed punishment. Likewise, recent studies on just world beliefs (arguably the Western counterpart of karmic justice) have found that five causal dimensions (i.e., God, Nature, People, Self and Chance) may be encapsulated in just world beliefs (Stroebe et al., 2015). That is, just world believers may expect justice to be delivered by *either* God (e.g., death of a loved one) nature (e.g., earthquakes), people (e.g., prison), oneself (e.g., low self-worth) or chance events (e.g., lightning strikes) or any combination of these sources (Stroebe et al., 2015). Thus, regardless of who or what the source of justice may be, karmic and just world beliefs involve the notion that immoral actions result in eventual negative outcomes.

A few studies have investigated behavioural outcomes that may be associated with thinking about karma. Some research has found that reminding people of karma can motivate prosocial behaviour. For example, telling people that 'Karma' or 'God' is overlooking cur-

rent moral actions, has been found to encourage fairness (Laurin et al., 2012; Purzycki et al., 2016; C. J. White, Kelly et al., 2019), increase generosity (Willard et al., 2020) and decrease third-party sanctions (Laurin et al., 2012; McNamara et al., 2016). However, this work does not account for how people interpret the justice process involved in receiving karmic consequences, that is, whether people see moral balance as inevitable with fixed consequences or hold alternative beliefs in karma where consequences for moral actions are probable.

A body of work has also investigated behavioural outcomes associated with just world beliefs. For example, stronger belief in the just world hypothesis has been associated with positive behaviours such as helping and forgiveness (Bartholomaeus & Strelan, 2016, Lucas et al., 2011; Strelan, 2007; Strelan & Sutton, 2011; Zuckerman, 1975) and negative behaviours such as victim blaming and lack of empathy (Lerner & Simmons, 1966; Rye et al., 2006; Sakallı-Ugurlu et al., 2007). This body of work, however, has been conducted primarily among Western populations, focusing for the most part on Western understandings of just world beliefs and imminent justice. Thus, it does not account for how people across cultures interpret the just world hypothesis or karmic consequences and whether these differences may result in varied moral attitudes.

1.3 | Cultural differences in understandings of karmic justice

Evolutionary approaches to religion suggest that across societies and religions, people tend to believe in higher powers that oversee rewards and punishments for moral actions (Laurin et al., 2012; Norenzayan, 2013). These beliefs emerged as a way to ensure norm adherence in large-scale societies that could not effectively monitor everyday norm violations (Norenzayan, 2013). This work also suggests that across cultures people have different perceptions of time (Levine & Norenzayan, 1999; Norenzayan, 2013) and life cycles (Young et al., 2011). It could be argued that Judaeo-Christian cultural beliefs about life are linear. There is a beginning and end to 'life' and a (known) finite amount of time within which people may face consequences for their actions (Norenzayan., 2013). In contrast, Hindu-Buddhist cultural beliefs about life are somewhat circular as they are embedded in transmigration, that is, the notion that we live infinite lives. 'Life is a continuous circle with no beginning or end' (Kopalle et al., 2010) and there is an (unknown) infinite amount of time within which people may face consequences for their action.

We argue that cultural differences in reincarnation beliefs may lead people across cultures to have different attitudes towards karmic justice. Hindu-Indian populations may perceive karmic consequences (e.g., punishment) as *inevitable* (i.e., fixed, or certain) compared to Judaeo-Christian American populations, as their karmic reasoning is likely to be embedded in the idea of reincarnation (Bronkhorst, 2011; Young et al., 2011). That is, the idea that we live multiple lives where negative (positive) consequences for immoral (moral) actions may *not* be experienced in one's current lifetime. Paradoxically, we argue that, when people believe that karmic consequences span over (unknown) infinite

multiple lives, it may lead them to think that punishments for negative actions are certain or definite. Believers may feel that when a negative outcome does not occur in this lifetime, it arrives in the infinite future. There is no way to escape consequences for bad behaviour; good behaviours cannot cancel out bad behaviours.

We further argue that perceiving karmic justice as *inevitable* may curb revenge intentions. If perceiving consequences (such as punishment) as inevitable involves feeling as if one's moral behaviour has fixed consequences in the infinite future then there is no way to escape punishment for enacting revenge, regardless of the inflicted offence. Believing in *inevitable karmic justice* may thus curb revenge as people may have more conviction in their actions leading to fixed (rather than probable) negative consequences for themselves.

Given that Indians are more likely to endorse notions of multiple lives (i.e., reincarnation) than Americans (C. J. White, Norenzayan et al., 2019; Young et al., 2011), we rely on these two populations to test our hypotheses regarding the culturally variable versions of karmic justice and their relationship to revenge.

1.4 | Overview of studies

In four experiments, we assess the general claim that Indians will be more likely than Americans to hold beliefs in inevitable karmic justice, that thinking about consequences as inevitable will curb revenge behaviours, and that beliefs in reincarnation will positively influence beliefs in inevitable karmic justice. In Study 1, we assessed cultural differences in beliefs in inevitable karmic justice and revenge inclinations. We hypothesized that, compared to Americans, Indians would more strongly view karmic justice as inevitable and would be less inclined to enact revenge.

In Studies 2–3, we assessed the causal pathway between inevitable karmic justice beliefs and revenge resistance. In both studies, we experimentally induced participants to perceive negative outcomes (e.g., losing a prize) as either inevitable or probable. We then measured revenge intentions towards a person who engages in an unsolicited harmful action towards the participant. We predicted that both Indians and Americans primed to perceive outcomes as inevitable (compared to probable) would be less likely to report revenge intentions. In Study 3, we further assessed *how* inevitable karmic justice beliefs may curb revenge. We explored two parallel mechanisms that may be involved in curbing revenge: certainty of punishment for the self (for enacting revenge) versus certainty of punishment for the offender (for the initial offence).

In Study 4, we assessed the role of reincarnation beliefs in driving cultural differences in inevitable karmic justice. We measured endorsement of beliefs in inevitable karmic justice and self-reported endorsement of reincarnation beliefs, while also assessing prior revenge behaviours by soliciting real-life examples of revenge that occurred in workplace contexts among Indians and Americans. We predicted that reincarnation beliefs would explain cultural differences, such that stronger reincarnation beliefs would be positively related to inevitable karmic justice beliefs, which would, in turn, be negatively associated with revenge (See Figure 1 for conceptual model).

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in each study. The verbatim materials for all studies and all exploratory measures are reported in the Supplementary Materials. Sample sizes for all the studies were determined before data collection.

2 | STUDY 1

In this study, we assessed cultural differences in perceptions of inevitable karmic justice beliefs and revenge inclinations. We predicted that Indians would be more likely than Americans to hold inevitable karmic justice beliefs and less likely to endorse revenge.

2.1 | Participants

In a pilot study, we had obtained an effect size of $d = 0.45$ (based on the comparison of revenge intentions between Indians and Americans). A subsequent power analysis based on $d = 0.40$, $\alpha = 0.05$ (two-tailed) and power $= 80\%$ (t-test independent means) indicated a sample size of 158 participants. Using Cloud Research, we asked 100 US residents and 100 Indian residents to complete an online questionnaire. In response, 193 participants (Americans: $N = 100$, Indians: $N = 93$) completed the survey[1] (Americans: $M_{age} = 37.82$, SD $= 9.59$; Indians: $M_{age} = 33.35$, SD $= 6.59$; Americans: 38 women, 59 men, three other Indians: 28 women, 65 men).

2.2 | Procedure and materials

Participants first read two scenarios designed to assess *revenge intentions*. In each scenario, the protagonist received a hostile action from another person (e.g., a classmate ridiculed the protagonist during a presentation) and then was presented with a situation in which the protagonist had an opportunity to take revenge (e.g., by denying the classmate a ride in the pouring rain). We assessed the degree to which the participant felt that the protagonist would take revenge on a 0 = not at all to 7 = extremely scale ($\alpha = 0.814$). See Supplementary Materials for verbatim scenarios.

Next, we measured the degree to which participants saw karmic justice as inevitable with a three-item scale. We asked participants to pick one of three statements they agreed with the most. We intentionally did not use the words 'karma' and 'justice' in our scale measure. Our interest was in examining latent beliefs in 'karma' that share conceptual overlap with other theories such as imminent justice and just world. Thus, we did not include the term 'karma', 'karmic outcomes' or 'karmic consequences' as these phrases may have culturally variable meanings that may pose as significant confounds.

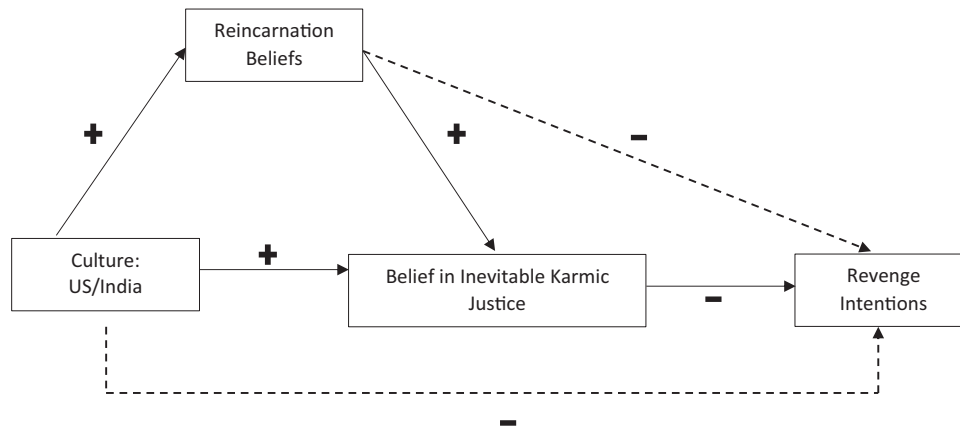Item 1. When a person does something wrong:

FIGURE 1 Conceptual model of the study hypotheses in the investigation. Theoretically, we expect unilateral relationships between variables. Dotted lines denote indirect pathways.

a. They will not suffer misfortune in the future (No karmic justice)

b. They might suffer misfortune in the future (Probable karmic justice)

c. They definitely suffer misfortune in the future (Inevitable karmic justice)

Item 2. When a person does something wrong:

a. They will never be punished for their actions (No karmic justice)

b. They will probably be punished for their actions at some point in the future (Probable karmic)

c. They will definitely be punished for their actions at some point in the future (Inevitable karmic justice)

Item 3. When a person does something wrong:

a. Wrong actions never lead to negative consequences (No karmic justice)

b. Wrong actions sometimes lead to negative consequences (Probable karmic justice)

c. Wrong actions definitely lead to negative consequences (Inevitable karmic justice)

We then created a total average score across the three items, with higher scores indicating stronger endorsement of *inevitable karmic justice*. Next, we asked participants to complete scale measures of *General Beliefs in Ultimate Justice* (Maes, 1998) and *Beliefs in a Just World* (Lucas et al., 2011).

2.3 | Results

A total of $N = 24$ participants (11.08%) (Americans: $N = 20$; Indians: $N = 4$) indicated beliefs in no karmic justice. That is, $N = 24$ people selected 'no justice' statements on (all three of) the items on our inevitable karmic justice measure. As our interest was only in assessing outlooks associated with cultural differences in karmic justice beliefs, we excluded these participants from the analyses involving culture. It

should be noted, however, that all the inferential statistis presented below with regard to culture remained statistically significant remain so, with and without these exclusions.

As predicted, Indians ($M = 2.46$, $SD = .52$, 95% CI [2.35, 2.57]) held stronger beliefs in inevitable justice $F (1,164) = 12.179$, $p = .001$, $\eta_p^2 = 0.069$ compared to Americans ($M = 2.10$, $SD = .49$, 95% CI [2.00,2.20]). Indians ($M = 2.86$. SD = 1.21, 95% CI [2.61, 3.11]) also reported lower revenge intentions than Americans ($M = 5.84$, SD = 1.51, 95% CI [5.50,6.18]) $F (1,164) = 190.83$, $p = .001$, $\eta_p^2 = 0.53$.

Overall, Indians ($M = 4.19$. SD = 0.56, 95% CI [3.92, 4.28]) more strongly than Americans ($M = 2.96$. SD = 1.14, 95% CI [2.76, 3.16]) endorsed General Beliefs in Ultimate Justice $F (1,164) = 69.55$, $p < .001$, $\eta_p^2 = 0.29$. Indians ($M = 5.39$. SD = 0.89, 95% CI [5.16,5.62]) more strongly than Americans ($M = 4.03$. SD = 1.28, 95% CI [3.79, 4.28]) also endorsed Beliefs in a Just World $F (1,164) = 63.87$, $p < .001$, $\eta_p^2 = 0.298$.

Correlations between the measures revealed, in line with our hypothesis, that inevitable karmic justice was negatively associated with revenge $r (193) = -.150$, $p = .038$. Inevitable karmic justice was positively correlated with general beliefs in ultimate justice $r (193) = 0.531$, $p < .001$ and just world beliefs $r (193) = .254$, $p < .001$. General beliefs in ultimate justice $r (193) = -0.515$, $p < .00$ and just world beliefs $r (193) = -.547$, $p < .001$ were both negatively associated with revenge inclinations, but positively related to each other $r (193) = .629$, $p < .001$.

2.4 | Discussion

In this study, we demonstrated that Indians perceive justice as more inevitable compared to Americans. Furthermore, we found that Indians were less likely to endorse revenge behaviours compared to Americans, and that believing in inevitable karmic justice was negatively associated with revenge intentions.

One limitation of the current study, however, is that it is correlational in nature and thus does not assess the causal pathway between perceiving justice as inevitable and revenge among Indians and Americans. In the next study, we address this limitation.

3 | STUDY 2

In this study, we assessed whether perceiving outcomes as inevitable curbed revenge behaviours. We experimentally manipulated whether a negative consequence (i.e., losing a lottery), which served as a proxy for a karmic consequence, was inevitable versus probable. We then assessed revenge behaviours among Indians and Americans. We predicted that both Indians and Americans in the inevitable consequence condition would be less likely to engage in revenge compared to those in the probabilistic consequence condition.

3.1 | Method

We pre-registered our hypotheses, methods and analysis plan at: https://osf.io/83hnx/?view_only=cd36d2b4b10f4cd7972e6c92c6f4dff8

To access data: https://osf.io/u2dgh/?view_only=32101ef33ca54f07bd91bcf68e9b1376

3.1.1 | Participants

In a similar study, we obtained a medium effect in the predicted direction with an effect size of $f = 0.165$. A power analysis based on $f = 0.165$, $\alpha = .05$, and power = 80% indicated that we needed to recruit 405 participants. We asked for 202 US residents and 203 Indian residents on Cloud Research. In response, 374 participants completed the survey (Americans: $M_{age} = 37.03$; Indians: $M_{age} = 34.98$; 40.7% American women, 33.3% Indian women).

3.1.2 | Procedure and materials

Participants played a turn-taking game called 'Split' (an adaptation of the dictator game). The game was pre-programmed such that during the first round all participants were the recipient of a 'money-split' from a confederate player (a gender-neutral Player Chris/Kiran) who ostensibly purposely offended the participant by sending 0 cents (0 Rupees) to the participant.

On the second round, all participants ostensibly received 100 cents (100 Rupees) and had to decide how much of these 100 cents (100 Rupees) they would send the confederate player in return.[2] Participants were told that how they chose to split their money with the confederate player would impact their chances of winning a lottery, with the lottery payment five times the amount of their overall participation payment in the experiment. Participants were randomly assigned to either the 'inevitable consequence' or 'probable consequence' condition.

In the inevitable condition, participants were told that the outcome of the lottery was fully certain. For example, 'Sending some money to the other player will definitely increase your chances of winning the lottery. The more money you decide to send to the other player, the more likely you are to win the lottery. So, if you give the other player a lot of money, you are definitely increasing your chances of winning the lottery. If you give the other player less money, you are definitely decreasing your chances of winning the lottery. In short: The nicer you are to the other player, the chances of winning the lottery will definitely increase. The worse you treat the other player the chances of winning the lottery will definitely decrease.'

In the probable condition, participants were told that the outcome of the lottery was not fully certain. For example, 'Sending money to the other player is likely but not certain to influence your chances of winning. So, if you decide to give the other player a lot of money, it is likely to increase your chances of winning the lottery, but may also possibly not affect your chances of winning. If you give the other player less money, it is likely to decrease your chances of winning the lottery but it may also not decrease your chances of winning the lottery. In short: The nicer you are to the other player, the chances of winning the lottery are likely but not certain to increase. The worse you treat the other player, the chances of winning the lottery are likely but not certain to decrease.'

By manipulating the ways in which the lottery works, we were manipulating ways in which people understand karmic consequences, that is, either in inevitable terms where every action leads to a certain and fixed outcome versus in probabilistic terms where actions might have certain consequences, but the likely outcome is probably not fixed.

The amount of money out of the original 100 cents (100 Rupees) a participant withheld from the confederate player served as our measure of revenge. That is, for example, if the participant gave the confederate player 0 cents, 100 was scored as our measure of revenge, whereas if the participant gave the confederate player 30 cents, 70 was scored as our measure of revenge.

3.1.3 | Manipulation check

At the end of the study, as a manipulation check, we asked participants in each condition how likely they felt it was to win the lottery, on a 1 (not at all) to 7 (extremely) scale.

3.2 | Results

In line with our experimental procedures outlined in the pre-registration, we excluded participants ($N = 47$) who provided gibberish or irrelevant responses to an open-ended question used for data screening purposes. See Supplementary Materials for verbatim excluded responses. We pre-registered one-tailed tests.

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[2] All participants received a minimum base payment for participation in this study. On top of this base payment, participants were allotted 100 cents (100 Rupees) and had to decide the exact amount of money they would share with the confederate. If a participant decided to give the confederate 10 cents, it meant they had decided to keep 90 cents for themselves and eventually would be paid 90 cents (on top of their base payment), regardless of the outcome of the lottery at the end of the game.

TABLE 1 Means, standard deviations, and 95% confidence intervals for revenge in each culture by condition (Study 2).

	Americans ($N = 189$) M, (SD), [CI]	Indians ($N = 138$) M, (SD) [CI]
Inevitable karma	62.84 (1.75) [56.14, 69.55][a]	52.14 (1.75) [44.35, 59.93][b]
Probabilistic karma	80.25 (1.81) [73.36, 87.15][c]	64.07 (1.59) [55.93, 72.16][d]

Note. Revenge = higher scores indicate higher revenge behaviours (i.e., money withheld from the confederate player). Different superscripts denote significant differences.

3.2.1 | Manipulation check

A *t*-test conducted on the manipulation check among Indians $t(136) = 1.985$, $p = .049$, $d = 0.33$ and Americans $t(187) = 1.819$, $p = .071$, $d = 0.27$, as per our pre-registration, revealed that participants in both cultures felt that they would be more likely to win the lottery in the inevitable (Indians: $M = 5.26$, $SD = 1.76$, 95% CI [4.87, 5.65]; Americans: $M = 3.91$, $SD = 1.82$, 95% CI [3.58, 3.81]) compared to the probabilistic condition (Indians: $M = 4.70$, $SD = 1.56$, 95% CI [4.28, 5.10]; Americans: $M = 3.48$, $SD = 1.37$, 95% CI [3.14, 3.81]).

3.2.2 | Revenge behaviours

A 2 (Culture: Americans, Indians) $\times$ 2 (Condition: Inevitable, Probable) ANOVA on revenge revealed significant main effects of condition $F(1, 323) = 15.18$, $p < .001$, $\eta_p^2 = 0.045$ and culture $F(1, 323) = 12.753$, $p < .001$, $\eta_p^2 = 0.038$. The culture $\times$ condition interaction was not significant: $F(1, 323) = 0.532$, $p = .466$, $\eta_p^2 = 0.002$. As predicted, both Indians $F(1, 323) = 4.336$, $p = .038$, $\eta_p^2 = 0.013$ and Americans $F(1, 323) = 12.688$, $p < .001$, $\eta_p^2 = 0.038$ were less likely to engage in revenge behaviours in the inevitable condition compared to in the probable condition. See Table 1 for means.

3.2.3 | Sensitivity power analysis

Given that the study exclusions resulted in a slightly lower sample ($N = 327$) size than suggested by the power analysis ($N = 405$), we conducted a sensitivity analysis. Using G*power for the two-way ANOVA (Fixed effects, main effects and interactions) with $\alpha = 0.05$, power = 0.80, $N = 327$ (the final sample size), number of groups = 4, and found that the minimum effect size required is $f = 0.15$, $n_p^2 = 0.022$ (Faul et al., 2009). Our observed effect size was $n_p^2 = 0.045$ for the predicted main effect of lottery condition. The analysis thus had at least 80% power to detect an effect size of f = 0.15 or similar.

3.3 | Discussion

As expected, we found that viewing outcomes as inevitable curbed revenge behaviours; both Indians and Americans were less likely to

enact revenge in the inevitable versus probable condition. As in Study 1, we found a cultural difference in revenge. In both conditions, Indians were less inclined to engage in revenge compared to Americans. Some research suggests that, although Indians tend to feel a sense of obligation to give benefits to others who are relying on them, Americans see the giving of benefits as a discretionary matter of personal choice (Goyal & Miller, 2018; Miller, 1994; Miller & Bersoff, 1992; Miller et al. 2014, 2017). Given that in this study (and Study 1) we operationalized revenge as *not* giving benefits (i.e., retributively withholding benefits), rather than as harm, it is possible that Indians overall felt more obligation than Americans to share their money with the (mock) player companion.

Additionally, in this study, we manipulated certainty associated with winning a lottery (which by nature is a probabilistic system). While this may have been a conservative method of manipulating inevitability (as it was within a probabilistic lottery system), it is possible that there may have been baseline cultural differences with regard to Indian and American participants' perceptions of the baseline probabilities of winning a lottery.

In the next study, we addressed these concerns. We assessed revenge that involved acts of harm directed at the offender. Additionally, we manipulated an outcome that was not based on a lottery system, with stronger certainty to assess whether we still observe cultural differences in revenge.

4 | STUDY 3

In this study, we assessed whether perceiving consequences as inevitable (rather than probable) leads to lower inclination for harm-based revenge. We experimentally simulated a fictitious work environment where consequences for immoral actions (e.g., loss of a bonus) were inevitable versus probable. We then presented participants with a scenario in which they received a hostile action from a hypothetical colleague and had to decide whether they would enact revenge towards the colleague. We predicted that both Indians and Americans in the inevitable condition would report lower revenge intentions compared to those in the probable condition.

A body of work has found that people are less likely to engage in anti-social actions towards transgressors when they believe that 'watchful' forces overlook our moral actions (Laurin et al., 2012; Shariff & Norenzayan, 2011; Shariff et al., 2016). This work suggests that people are less likely to punish transgressors when they are certain that the transgressor will be punished by an external moralizing system. However, it is also possible that people do not engage in antisocial actions towards transgressors as they feel they themselves may be punished by these watchful moralizing forces. Recent work on just world beliefs has highlighted the importance of making the distinction between the target of people's just world beliefs (Begue et al., 2008). That is, people may perceive the world as just for themselves but not for other people, and vice versa; people may see the world as just for other people but not themselves. Work on just world beliefs has shown that while believing in a just world for the self (but an unjust world for others) leads to positive

consequences (Begue et al., 2008), the opposite does not hold: believing in a just world for other people has been shown to be associated with negative outcomes (such as victim blaming).

In this study, we thus assess *how* karmic justice beliefs may curb revenge behaviours. Specifically, we explore whether certainty of punishment for oneself or certainty of punishment for the offender (for the initial offense) more strongly curbs revenge intentions. Extending previous work on just world beliefs, we predicted that certainty of punishment for the self would more strongly curb revenge intentions than certainty of punishment for the offender.

4.1 | Method

We pre-registered the method, hypothesis and analysis plan at: https://osf.io/m92yt/?view_only=02d4d200c85b4c82bcd338e2602083d5

To access data: https://osf.io/s2yx5/?view_only=911c74ad55624f9d93b57d00cd9153ad

4.1.1 | Participants

In the previous study, we obtained an effect in the predicted direction with an effect size of $f = 0.21$ ($\eta_p^2 = 0.045$). A power analysis based on $f = 0.21$, $\alpha = 0.05$, and power = 95% (F test, main effects, and interactions) indicated that we needed to recruit 297 participants. We asked for 180 US residents and 180 Indian residents on Cloud Research, in anticipation of exclusions based on data quality. In response, 318 participants completed the survey (Americans: $M_{age} = 39.50$, SD = 10.78; Indians: $M_{age} = 31.14$; SD = 6.34, Americans: 62 women, 115 men, one other; Indians: 51 women, 89 males).

4.1.2 | Procedures and materials

Participants were asked to imagine that they worked at a company where bonuses were based on how they treated other people in the office. We then randomly assigned participants to either an inevitable or probable punishment condition. In the *inevitable* condition, participants were told that how employees treat each other in the office definitely leads to whether employees receive bonuses. In the *probable* condition, participants were told that how employees treat each other in the office might lead to whether employees receive a bonus. See Supplementary Materials for verbatim prompts.

Revenge intentions. We next measured revenge intentions via a hypothetical vignette. We asked participants to imagine that their coworker offended them by drinking their coffee without asking their permission. Participants then found themselves in a situation where they could enact revenge on the coworker by making coffee with expired milk, which would result in a stomach ache for the coworker. We measured revenge by asking people to indicate whether they would enact this revenge, with responses given on an eight-point scale (1: I will not make the coffee with the expired milk; 8: I will make the cof-

fee with the expired milk). See Supplementary Materials for verbatim scenario.

Certainty of punishment for the self versus the offender. Next, we measured certainty of punishment for engaging in revenge both for the self and for the offender. Participants were then presented with the following questions, on a 0: not at all likely; 6: extremely likely scale, 'How likely is it that this action (making coffee with expired milk) will result in you losing the bonus?'; 'How likely is it that the behaviour of your colleague (drinking your coffee without permission) will result in him losing the bonus?'

4.2 | Results

As per our experimental procedures described in the pre-registration, we excluded participants (N = 53) who provided gibberish and irrelevant responses to an open-ended question used for data screening purposes. See Supplementary Materials for verbatim excluded responses. As per our pre-registration, simple effects comparisons presented below report one-tailed *p*-values.

4.2.1 | Revenge intentions

A 2 (Culture: Americans, Indians) × 2 (Condition: Inevitable, Probable) ANOVA on revenge intentions, as predicted, revealed a significant main effect of condition $F(1, 261) = 17.480$ $p < .001$, $\eta_p^2 = 0.063$ and a marginally significant effect of culture $F(1, 261) = 3.526$ $p = .062$, $\eta_p^2 = 0.013$. The culture × condition interaction was not significant $F(1, 261) = .361$, $p = .548$, $\eta_p^2 = 001$. As predicted, Indians $F(1, 261) = 4.765$, $p = .015$, $\eta_p^2 = 0.018$ and Americans $F(1, 261) = 17.450$, $p < .001$, $\eta_p^2 = 0.03$ in the inevitable condition reported lower revenge intentions compared to those in the probable condition. See Table 2 for means.

4.2.2 | Certainty of punishment for the self and the offender

A 2 (Culture: India, US) × 2 (Condition: Inevitable, Probable) × 2 (Punishment certainty: self, offender) mixed design ANOVA, with punishment target as the within-participant factor revealed significant effects of culture $F(1, 260) = 15.252$, $p < .001$, $\eta_p^2 = 0.055$, condition $F(1, 260) = 85.728$, $p < .001$, $\eta_p^2 = 0.248$, culture × condition $F(1, 260) = 10.918$, $p < .001$, $\eta_p^2 = 0.040$, punishment target × culture $F(1, 260) = 4.820$ $p = .029$, $\eta_p^2 = 0.018$ and non-significant effects of punishment target $F(1, 260) < 1.00$ 0.878 $p = .350$, $\eta_p^2 = 0.003$, punishment target × condition $F(1, 260) < 0.001$ $p = .992$, $\eta_p^2 < 0.001$, and punishment target × culture × condition $F(1, 260) < .100$ $p = .813$, $\eta_p^2 < 0.001$.

Simple effects found that, overall, Indians anticipated more punishment for the self than Americans $F(1, 260) = 19.406$ $p < .001$, $\eta_p^2 < 0.139$, while Americans displayed the opposite tendency, expecting more punishment for the offender than Indians $F(1, 260) = 8.734$ $p = .003$, $\eta_p^2 = 0.067$. While Indians expected the same degree of

TABLE 2 Means, standard deviations, and 95% confidence intervals for main dependent variables in each culture by condition (Study 3)

	Americans		Indians	
	Inevitable M (SD) [95% CI]	Probable M (SD) [95% CI]	Inevitable M (SD) [95% CI]	Probable M (SD) [95% CI]
Revenge Intentions	3.74 (3.01) [3.14, 4.32]	5.50 (2.78) [4.91, 6.08]	3.27 (2.58) [2.40, 4.13]	4.59 (2.66) [3.77, 5.40]
Self-Punishment	4.59 (2.19) [4.18,4.99]	2.06 (1.35) [1.66,2.46]	5.07 (2.12) [4.48, 5.66]	3.82 (2.10) [3.26, 4.38]
Offender Punishment	5.09 (2.09) [4.68 5.49]	2.49 (1.65) [2.09, 2.88])	4.85 (1.93) [4.26, 5.44]	3.67 (2.02) [3.11, 4.23]

punishment for themselves compared to the offender $F(1, 260) = 0.586$, $p = .445$, $\eta_p^2 < 0.004$, Americans expected more punishment for the offender than themselves $F(1, 260) = 7.440$, $p < .001$, $\eta_p^2 = 0.058$.

Importantly, however, both Indians $F(1, 260) = 6.976$, $p = .009$, $\eta_p^2 = 0.054$ and Americans $F(1, 260) = 58.30$, $p < .001$, $\eta_p^2 = 0.326$ expected more punishment for the self in the inevitable compared to probable conditions. Also, as expected, both Indians $F(1, 260) = 6.243$, $p = .013$, $\eta_p^2 = 0.049$ and Americans $F(1, 260) = 61.72$, $p < .001$, $\eta_p^2 = 0.339$ anticipated more punishment for the offender in the inevitable compared to probable conditions. Indians also anticipated more punishment for the self $F(1, 260) = 19.406$, $p < .001$, $\eta_p^2 = 139$ and for the offender $F(1, 260) = 8.730$, $p = .003$, $\eta_p^2 = 0.637$ compared to Americans in the probable condition. No condition differences were observed between Indians and Americans on anticipated punishment for the self $F(1, 260) = 1.346$, $p = .247$, $\eta_p^2 = 0.011$ or the offender $F(1, 260) = 58.30$, $p = .569$, $\eta_p^2 = 0.326$ in the inevitable condition. See Table 2 for means.

Next, we conducted a bootstrapped moderated mediation analysis using PROCESS Model 7 (10,000 bootstrapped samples). We tested whether certainty of punishment for the self or for the offender better explained (inevitable vs. probable) condition differences on revenge intentions observed among Indians and Americans. We entered condition as the predictor (0 = Probable, 1 = Inevitable), anticipated self-punishment and offender-punishment as simultaneous mediators, culture as the moderator variable and revenge intentions as the outcome variable. Culture moderated the effect of condition on revenge via self-punishment $b = 0.577$, $SE = 0.262$, 95% CI $[0.108, 1.136]$ but not offender punishment $b = -0.148$, $SE = 0.158$, 95% CI $[-0.521, 0.119]$.

We found an indirect effect of condition on revenge via self-punishment for both Americans $b = -1.114$, $SE = 0.268$, 95% CI $[-1.681, -0.630]$ and Indians $b = -0.564$, $SE = 0.248$, 95% CI $[-1.11, -0.146]$. In contrast, the indirect effect of condition on revenge via offender punishment was not significant for either Americans $b = 0.272$, $SE = 0.261$, 95% CI $[-0.220, 0.801]$ or Indians $b = 0.123$, $SE = 0.130$, 95% CI $[-0.106, 0.420]$. The direct effect of condition on revenge remained significant, $b = -0.870$, $SE = 0.39$, 95% CI $[-1.65, -0.090]$, $t(260) = -2.197$, $p = .028$, suggesting that self-punishment partially mediated condition differences on revenge in both cultures. Taken together, these results imply that anticipating punishment for the self was likely to be a stronger motivator to curb revenge intentions than anticipating

punishment for the offender among both Americans and Indians. See Table 3 for inferential statistics of individual pathways in the model and Table 4 for summary statistics of each model. See Table 5 for correlations.

4.2.3 | Sensitivity power analysis

Given that the exclusions in this study resulted in a slightly lower total sample size ($N = 265$) as yielded by the a priori power analysis ($N = 297$), we conducted a sensitivity analysis using G*power for ANOVA (Fixed effects, main effects and interactions) with $\alpha = 0.05$, power = 0.80, $N = 265$ (the final sample size), number of groups = 4 to assess if our experiment had enough statistical power to detect a significant effect. We found that the minimum effect size required is $f = 0.17$ ($n_p^2 = 0.030$). Our observed effect size was $n_p^2 = 0.063$ for the predicted main effect of condition. The analysis thus had at least 80% power to detect an effect size of $f = 0.17$ or similar.

4.3 | Discussion

In this study, we found that both Americans and Indians experimentally induced to perceive consequences as inevitable reported lower revenge intentions. Thus, we demonstrated a causal pathway between perceiving punishment as inevitable and resistance to revenge. Further, we showed that people anticipate more punishment for the self and other offender when primed to think about punishment as inevitable rather than probable. However, anticipating punishment for the self for engaging in antisocial actions, rather than relying on external processes to punish offenders, more strongly curbs revenge intentions.

In this study, we found a marginally significant effect of culture, which suggests that the effect of culture on revenge may be different for acts of omission versus commission. Given findings from Studies 1–2, it is likely that stronger cultural differences exist in revenge as avoidance behaviours, compared to revenge as confrontational behaviours.

Although Studies 1–3 lend support to our overall hypothesis regarding culturally variable forms of karmic justice and their subsequent influence on revenge, questions remain with regard to which factors

TABLE 3 Coefficients for individual pathways in the regression models (Study 3)

	B	SE	t	p	95% CI
Model 1: DV = Revenge					
Constant	6.080	0.368	16.482	<.001	5.354, 6.807
Condition	−0.870	0.396	−2.197	.0289	−1.651, −0.090
Self-punishment	−0.452	0.088	−5.118	<.001	−0.626, −0.278
Offender-punishment	0.1048	0.090	1.154	.249	-0.074, 0.283
Model 2: DV = Self-punishment					
Constant	2.067	0.203	10.148	<.001	1.666, 2.468
Condition	2.523	0.288	8.734	<.001	1.954, 3.092
Culture	1.758	0.349	5.039	<.001	1.071, 2.445
Culture × Condition	−1.276	0.503	-2.533	.0119	−2.268, −0.284
Model 3: DV = Offender punishment					
Constant	2.494	0.203	12.241	<.001	2.093, 2.895
Culture	1.179	0.349	3.379	<.001	.492, 1.866
Condition	2.596	0.289	8.985	<.001	2.027, 3.165
Culture × Condition	−1.416	0.504	−2.811	.005	−2.409, −0.424

TABLE 4 Summary statistics and effect sizes for model fit (Study 3)

	F	df	R^2	MSE	p
Model 1: DV = Revenge	16.474	3,260	0.159	7.302	<.001
Model 2: DV = Self punishment	34.749	3,260	0.286	3.693	<.001
Model 3: DV = Offender punishment	30.672	3,260	0.261	3.695	<.001

TABLE 5 Pearson's correlations between main dependent variables in Study 3

		Self punishment	Offender punishment	Revenge
Self-Punishment	Pearson's r	—		
	p-value	—		
Offender Punishment	Pearson's r	.489	—	
	p-value	<.001	—	
Revenge	Pearson's r	−.379	−.164	—
	p-value	<.001	.007	—

may contribute to these cultural differences. In the next study, we investigate the role of reincarnation beliefs in explaining cultural differences in endorsement of inevitable justice.

5 | STUDY 4

In this study, we assessed one potential factor that may drive cultural differences in endorsement of inevitable karmic justice. Here we explored the role of reincarnation beliefs in explaining these differences. We predicted that Indians would be more likely to endorse beliefs in reincarnation than Americans, and that reincarnation beliefs

would explain cultural differences in endorsement of inevitable karmic justice, which, in turn, would predict revenge behaviours.

5.1 | Method

5.1.1 | Participants

In a pilot study, we had obtained an effect size of $d = 0.37$ ($f = 0.185$). A subsequent power analysis based on $f = 0.185$ $\alpha = 0.05$ (two-tailed), and power = 84% (F test omnibus one way) indicated a sample size of 232 participants (Faul et al., 2009). Using Cloud Research, we asked

130 US residents and 130 Indian residents to complete an online questionnaire. In response, 256 participants (Americans: N = 123, Indians: N = 133) completed the survey (Americans: M_{age} = 40.93, SD = 12.42; Indians: M_{age} = 36.68, SD = 11.35; Americans: 68 women, 55 men, Indians: 74 women, 59 men).

5.1.2 | Procedure and materials

Participants were first asked to generate open-ended responses to questions narrating a time in their own lives when they had been offended by another person. Participants then responded to items assessing endorsement of revenge (α = 0.817): 'I did something to get even with this person; I did something to teach this person a lesson' that we averaged to form the revenge index. We also included two filler items (α = 0.930): 'I showed kindness towards the person; I was friendly towards the person' (α = 0.918). (For results pertaining to filler measures, see Supplementary Materials).

Next, we measured endorsement of inevitable punishment via the same measure used in Study 1. We then asked participants to complete scale measures of *General Beliefs in Karma* (White et al., 2017) and *Beliefs in a Just World-Self* (Lucas et al., 2011), to assess whether these measures covaried with our measure of inevitable karmic justice.

Lastly, we measured beliefs in re-incarnation via two items: 'When we die our souls are born into new bodies'; I believe in rebirth or reincarnation of the soul' (sampled from Kopalle et al., 2010) on a 1: Strongly Disagree to 7: Strongly Agree scale, which we averaged to form the reincarnation beliefs index (α = 0.930).

5.2 | Results

A total of N = 13 participants (5.08%) (Americans: N = 8; Indians: N = 5) endorsed no justice statements. That is, N = 13 people selected 'no justice' statements on (all three of) the items on the inevitable justice measure. As our interest was only in assessing outlooks associated with justice beliefs, we excluded these participants from further analysis. It should be noted, however, that all the inferential statistics presented below found to be statistically significant remain so, with and without these exclusions.

As expected, Indians (M = 4.64, SD = 1.94) held stronger beliefs in reincarnation than Americans (M = 2.80, SD = 1.63), F (1, 241) = 63.02, p < .001, η_p^2 = 0.207. Indians (M = 2.58, SD = 0.47) were also more likely to endorse inevitable karmic justice compared to Americans (M = 1.84, SD = .45), F (1, 241) = 152.232, p < .001, η^2 = 0.38. Also as expected, Indians were less likely to endorse revenge (M = 3.96, SD = 2.20, 95% CI [3.60,4.31]) compared to Americans (M = 5.75, SD = 1.80, 95% CI [5.38,6.12]), F (1, 241) = 47.55, p < .001, η_p^2 = 0.17.

Next, correlations between measures found that inevitable justice beliefs were negatively associated with revenge r (243) = -0.234, p < .001, positively associated with reincarnation beliefs r (243) = 0.447, p < .001, and positively associated with general beliefs in karma r (243) = 0.663, p < .001. See Table 6 for full correlation matrix between measures.

We tested the conceptual model in Figure 1, assessing the pathway from culture → reincarnation beliefs → inevitable justice → revenge, using custom modelling in PROCESS (BMATRIX). We entered culture (0 = US, 1 = India) as the independent variable, revenge as the outcome and reincarnation beliefs and inevitable karmic justice as mediators. The pathway going from culture → reincarnation beliefs → inevitable justice → revenge (as depicted in Figure 1) was significant b = –0.0877, SE = 0.041, 95% CI [–0.174, –0.010]. The indirect effect of culture via inevitable justice on revenge was also significant, b = –0.179, SE = .103, 95% CI [–0.410, –0.015]. See Table 6 for inferential statistics of individual pathways in the model and Table 7 for summary statistics of each model. See Table 8 for correlations.

5.3 | Discussion

In this study, we tested the conceptual model presented in Figure 1, finding one potential factor that may explain cultural differences in perceptions of inevitable justice; reincarnation beliefs. We found that Indians were more likely to endorse beliefs in reincarnation than Americans, that reincarnation beliefs explained cultural differences in endorsement of inevitable karmic justice, which in turn predicted revenge behaviours.

6 | GENERAL DISCUSSION

We found support for the study hypotheses regarding cultural variation in inevitable karmic justice, and the influence of these beliefs on revenge behaviours. In Study 1, we uncovered that Indians tended to perceive karmic justice as more inevitable than Americans, and were also less inclined to enact revenge. In Studies 2–3 (pre-registered), we measured revenge after experimentally inducing participants to perceive a negative consequence (e.g., punishment) as inevitable versus probable. We found that both Indians and Americans endorsed lower revenge behaviours when punishment was inevitable rather than probable. Further, in Study 3, we found that people anticipated more punishment for the self and the offender when primed to think about punishment as inevitable (rather than probabilistic). However, only anticipating punishment for the self rather than the offender curbed revenge intentions. Lastly, in Study 4, we uncovered one potential factor that may drive cultural differences in inevitable karmic justice: beliefs in reincarnation. We found that cultural differences in inevitable karmic justice are partly explained by beliefs in reincarnation. Together these studies highlight that Indians view karmic justice as more inevitable than Americans and that these views are partly informed by the different views they have on the notion of transmigration. Importantly, perceiving karmic justice as inevitable has at least one important psychological outcome: people who perceive karmic justice as inevitable are less likely to enact revenge.

TABLE 6 Coefficients for individual pathways in the regression models (Study 4)

	B	SE	t	p	95% CI
Model 1: DV = Reincarnation beliefs					
Constant	2.808	0.168 —	16.648	<.001	2.476, 3.141
Culture	1.837	0.230	7.978	<.001	1.384, 2.291
Model 2: DV = Inevitable justice					
Constant	1.706	0.062	27.356	<.001	1.584, 1.829
Culture	.287	0.065	4.383	<.001	0.158, 0.482
Reincarnation Beliefs	.076	0.016	4.730	<.001	0.044, 0.108
Model 3: DV = Revenge					
Constant	6.110	0.595 —	10.268	<.001	4.938, 7.283
Inevitable Justice	−.624	0.268	−2.321	<.001	−1.153, −0.094

TABLE 7 Summary statistics and effect sizes for model fit (Study 4)

	F	df	R^2	MSE	p
Model 1: DV = Reincarnation beliefs	63.649	1,246	0.205	3.273	<.001
Model 2: DV = Inevitable justice	38.005	2,245	0.236	0.210	<.001
Model 3: DV = Revenge	5.390	1,246	0.021	4.884	.021

TABLE 8 Pearson's correlations between main dependent variables in Study 4

	—	General karma scale	Reincarnation beliefs	Revenge	Friendly	Just world beliefs-self	Inevitable karmic justice
General karma scale	Pearson's r	—	—	—			
	p-Value	—	—	—			
Reincarnation beliefs	Pearson's r	0.766	−0.024	0.094			
	p-Value	<.001	0.708	0.144			
Revenge	Pearson's r	−0.071	0.141	-0.078			
	p-Value	.273	0.028	0.225			
Friendliness	Pearson's r	0.200	−0.165	-0.234	—		
	p-Value	.002	0.010	<.001	—		
Just world beliefs-self	Pearson's r	−0.267	0.477	—	-0.115	—	
	p-Value	<.001	<.001	—	0.073	—	
Inevitable karmic justice	Pearson's r	0.663	—	0.094	0.056	0.060	—
	p-Value	<.001	—	0.144	0.383	0.060	—

6.1 | Theoretical contribution

Our work extends recent research on karma (C. White et al., 2017; C. J. White, Norenzayan et al., 2019) ultimate justice (Maes, 1998; Muramaya et al., 2021) and imminent justice reasoning (Callan et al., 2014; Taylor et al., 2022) in highlighting cultural variation in justice reasoning. Existing research has found that these types of fatalistic intuitions are endorsed universally across cultures, and that cultural variation exists in the *degree* to which different cultures believe in justice intuitions. Past work on karma and ultimate justice assess the degree to which

people believe in supernatural forces such as karma or broad notions of justice (Kopalle et al., 2010; C. J. White, Norenzayan et al., 2019). In our work, we assess the way people perceive karmic outcomes, that is, the degree to which people see karmic justice as inevitable or probable. It is unknown in existing studies whether participants endorse notions of a 'probable' just world/karma, where people are generally punished (rewarded) for their bad (good) actions, or an inevitable' just world/karma where moral action has a definite consequence. Hence, our work complements these findings. We find that cultural variation exists in people's perception of karmic justice as inevitable. Further,

we find that people who believe in reincarnation tend to perceive karmic justice as inevitable (rather than probable) and that beliefs in inevitable karmic justice influence distinct psychological behaviours such as revenge.

Our work also contributes more generally to work on supernatural beliefs. In demonstrating culturally sensitive understandings of karmic justice, we are able to identify implications for work on *immanent justice* (Callan et al., 2014), *fate judgments* (Risen, 2016), *just world beliefs* (Lerner, 1980) and *Big Gods* (Norenzayan, 2013). Past research has found that Indians may simultaneously view the world as both just and unjust (Furnham, 1991). It is possible that Indians may perceive the world to be 'unfair' as they believe that people get punished for past life sins that one has no control over. At the same time, they may see the world as 'fair' as they believe that justice is guaranteed in a future life. Likewise, our findings may also stimulate further questions in work on imminent justice reasoning (Callan, et al., 2014) and fate judgments (Risen, 2016). For example, if justice is delivered over 'infinite' multiple lives, how do people understand 'fate' and consequently how do people understand 'imminent'?

Our work also extends work on the just world hypothesis that has distinguished between holding just world beliefs for oneself versus for others (Bartholomaeus & Strelan, 2016; Begue et al., 2008; Strelan & Sutton, 2011; Sutton et al., 2017). This body of work suggests that many of the positive effects of holding just world beliefs (such as increased forgiveness and empathy) are restricted to self-directed just world beliefs and do not generalize to other-directed just world beliefs (Strelan & Sutton, 2011). In this investigation, we provide support for this body of work as we also found that anticipating punishment for the self rather than the offender, that is, believing more strongly in inevitable karmic justice for the self rather than the offender, more strongly curbed revenge intentions. Furthermore, we found that world beliefs, self and inevitable justice were negatively correlated (see Table 8).

6.2 | The bright and dark side of inevitable justice

The present study identifies one important psychological outcome associated with perceiving karmic justice as inevitable: resistance to revenge. Here we find that people who perceive karmic justice as inevitable (rather than probable) are less likely to engage in an action they perceive as wrong (i.e., enacting revenge) as they feel they will inevitably be punished for engaging in such behaviour. We found that both Indians and Americans considered revenge as a moral violation in viewing it as deserving of individual punishment, with the judged certainty of this punishment reducing the willingness of individuals to engage in the behaviour. While this study focused exclusively on revenge, it is likely that the effects observed generalize to other types of antisocial behaviour, such as dishonesty or assault, that are seen as in violation of moral rules and deserving of punishment. Nevertheless, while believing in inevitable justice may enhance cooperation by curbing antisocial actions, these beliefs may also have a dark side. It

is possible that believing in inevitable karmic justice may lead people to think that misfortune in one's current life can be attributed to wrongdoings from a past life and thus to engage in higher victim blaming. This could be particularly troublesome in the aftermath of natural disasters and global health pandemics as people could see random misfortunes as deserved. Additionally, one can envision how perceiving karmic justice as inevitable can lead to unassertive and passive behaviour. People may feel trapped by fear of committing any type of breach, even in the cases in which undertaking the breach would potentially protect oneself from being harmed in the future. For example, one might avoid taking revenge against a coworker who repeatedly abused you in the workplace even if the act of revenge would reduce the likelihood that the coworker would engage in such abuse in the future. Further research is needed to investigate both positive and negative consequences of beliefs in inevitable karmic justice.

6.3 | Future directions

In this study, we also found cultural differences in revenge. In all four studies, Indians indicated lower inclinations to engage in revenge behaviours. We assessed two different types of revenge: revenge as withholding of benefits as well as acts of harm (Schumann & Ross, 2010). Our findings imply that stronger cultural differences exist between Indians and Americans on revenge as withholding of benefits (Studies 1–2), than on revenge as overt actions of harm (Studies 3–4). For example, in Study 2 we found that Indians indicated lower (withholding) revenge behaviours than Americans in both the probable and inevitable justice conditions. However, findings from Study 3 indicate that Indians reported significantly lower (harm-based) revenge inclinations than Americans only in the probable (but not inevitable) justice condition. Future research is needed to disentangle the relationship between culture and the two types of revenge actions.

In these studies, we focus on acts of revenge involving negative actions that evoke punishment. However, in many cases, revenge may involve positive actions that may be perceived as morally desirable (Schumann & Ross, 2010). An open question thus remains whether the effects observed here generalize to cases involving positive behaviours. Future research should investigate the consequences of inevitable versus probable 'positive' karma in relation to behaviours that are morally mandated, such as helping needy others.

Further, in this investigation, we found that reincarnation beliefs were associated with a tendency to see moral consequences as inevitable (rather than probable), which in turn curbed revenge. An additional pathway through which reincarnation beliefs may curb revenge is via beliefs in 'cosmic' punishment. It is possible that people who believe in reincarnation may also believe more strongly in cosmic punishment (such as freak accidents, chain reaction collisions), not just societal punishment. Future research should assess the understudied relationship between reincarnation beliefs, and cosmic and societal punishment.

6.4 | Summary and implications

Billions of people in the world endorse notions of reincarnation (Pew Research Center, 2015). Yet, there is a dearth of psychological research investigating how these views may influence social cognition and behaviour. Research on reincarnation and inevitable karmic justice has the potential to advance the study of religion, and to uncover cultural variation in a range of basic psychological phenomena, such as responses to misfortune, counterfactual inferences, and causal attribution more generally.

CONFLICT OF INTEREST

All research presented in this article was approved by the Human Subjects Committee of The New School University. We do not have any interests that might be interpreted as influencing the research. APA ethical standards were followed in the conduct of the study. The manuscript is original, not previously published, and is not under consideration elsewhere. The authors do not have any interests that might be interpreted as influencing the research.

ETHICS STATEMENT

APA ethical standards were followed in the conduct of the study. All participants gave written informed consent prior to their inclusion in the study.

DATA AVAILABILITY STATEMENT

Pre-registration: We pregistered the hypothesis, method and analysis plan of Study 2-3. Materials: The materials for all four studies are either described in the main text of the paper or in the Supplementary Materials document. Data: The data for study 1 and 4 can be found here: https://osf.io/n2q98/?view_only=24a367165f2049ea84fc2b78274177d6. The data for study 2 can be found here: https://osf.io/u2dgh/?view_only=32101ef33ca54f07bd91bcf68e9b1376. The data for study 3 can be found here: https://osf.io/s2yx5/?view_only=911c74ad55624f9d93b57d00cd9153ad

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