Empirical Research Paper

How Karma Harms and Helps Generosity Toward Those in Need

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Abstract

Three preregistered cross-cultural studies (N = 6,049 across India, Singapore, and the United States) tested how belief in karma shapes victim blaming and helping. Study 1 found that belief in karmic causality positively predicts a variety of system-justifying beliefs that legitimate social inequalities, but experimental reminders of karma also encouraged generosity toward others experiencing financial hardship. Studies 2 and 3 tested whether karma framing had different effects on generosity toward different recipients, who varied in their level of need and reason for need. Thinking about karma changed the importance of recipient characteristics, with need being less predictive and external attributions more predictive of giving when thinking about karma. Overall, experimental reminders of karma only reliably increased generosity toward recipients whose financial need was no fault of their own, showing that karmic beliefs draw attention to the reasons for people's bad fortune, and evoke responses to misfortune that are sensitive to naturalistic explanations.

Keywords

karma, external/internal attributions, victim blaming, justice, helping

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Belief in karmic causality—that cosmic forces ensure good behavior is rewarded and bad behavior is punished, even across long timescales not policed by mundane human agents of justice—provides both a way to explain people's current circumstances and motivation for how to behave to ensure a positive future. As an explanation, belief in karma leads observers to perceive people's present misfortune as the just desserts for prior immorality (Taylor et al., 2022; White, Norenzayan, & Schaller, 2019). This type of attribution can encourage victim blaming and other attitudes that justify systemic social inequalities (Cotterill et al., 2014) and may subsequently decrease willingness to help those in need. But karmic beliefs can also motivate good deeds as a way to improve one's own future outcomes (White, Kelly, et al., 2019; Willard et al., 2020), and this belief is likely to increase willingness to help those in need. In three preregistered cross-cultural experiments, we investigated how thinking about karma affects attributions for misfortune and willingness to help those in need. We also investigated how belief in karma is correlated with beliefs that systemic inequalities are justified and legitimate. Together, these studies provide insight into the ways that karmic beliefs rely upon and shape styles of causal attribution, and demonstrate the subsequent implications for prosocial behavior.

Naturalistic Explanations and Responses to Misfortune

Causal attributions for misfortune strongly affect observers' willingness to help those in need (Weiner, 1980). Specifically, attributing misfortune to an individual's internal traits or personal actions typically results in less sympathy and less help. Attributions that blame external factors, outside of the individual's control (e.g., societal structures that unfairly distribute opportunities, corruption, random unforeseen circumstances), typically elicit greater sympathy and help. This pattern of victim blame decreasing help has been observed among those experiencing poverty and financial hardship (Bullock et al., 2003; Piff et al., 2020), mental illness (Corrigan et al., 2003) and self-harm (Silva & Tsay, 2019), physical illnesses (Kogut, 2011), bullying (Desrumaux et al., 2018), and intimate partner violence (Pagliaro et al., 2021).

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Table 1. Summary of Theoretical Associations Between Specific Aspects of Karmic Causality, Most Relevant Attitudes and Beliefs, and Implications for Prosocial Behavior.

Specific view of karmic causality	Encourages focus on	Motivates behavior toward
Retrospective explanations: – Good and bad past behavior explains current good and bad experiences – May be especially common when thinking about others	– Reasons for people's current circumstances (attributions/ deservingness) – Reasons for legitimacy of social hierarchies	– Blaming and not helping plausibly-responsible victims of misfortune – Admiration and perceived legitimacy of success and good fortune
Prospective motives: – Doing good or bad now increased the likelihood of future good or bad outcomes – May be especially common when thinking about oneself	– Personal merit that can be gained through good behavior (but potential merit may depend on attributions of worthiness of recipient)	– Helping deserving recipients, including: ○ Virtuous recipients ○ Anonymous recipients ○ Recipients suffering through no fault of their own

Despite the robustness of this pattern, less is known about the cross-cultural generalizability of this relationship between attributions and victim helping (most prior research was conducted with Western samples, with rare exceptions such as Chang, 2018; Li et al., 2018; Ng & Koh, 2012; Piff et al., 2020). Religion is one important cultural factor because it teaches people to make particular supernatural attributions for life events, such as viewing misfortune as cosmic justice for past misdeeds. For example, religiosity is associated with greater immanent and ultimate justice reasoning (Harvey & Callan, 2014; Vonk & Pitzen, 2016) and general belief in a just world (Hafer & Sutton, 2016). However, different supernatural attributions are likely to have diverse impacts on psychological outcomes (Exline & Wilt, 2023). The present studies specifically investigated how belief in karma affects causal attributions and generosity toward victims of financial hardship, among participants from the United States, India, and Singapore.

Belief in Karma

Karma is widely endorsed as an explanation for life's outcomes. The idea that one's actions shape future outcomes through karmic causality, within this life and across lifetimes in the cycle of reincarnation, originated in Asian religious traditions like Hinduism and Buddhism (Bronkhorst, 2011). Belief in karmic causality is also found among people from many different cultural backgrounds, including spiritual-but-not-religious Westerners (White & Norenzayan, 2019). Karmic beliefs vary in many ways across these different cultural contexts, being more widespread and deeply embedded in religious practices and everyday life in Asian Hindu- and Buddhist-dominated cultures than in Western Christian-heritage cultures. Different communities also have distinct expectations about which specific actions and ritual practices are most likely to generate karmic outcomes (Daniel & Keyes, 1983).

However, several core elements of karma belief are consistently endorsed in both Eastern and Western samples. Generosity, kindness, and helping are widely endorsed as ways to generate positive karmic outcomes, while antisocial behavior generates negative outcomes, according to samples from the United States, Singapore, and India (White & Norenzayan, 2022; Willard et al., 2020). One way these karma beliefs manifest is through *retrospective explanations*: Karma provides a way to make sense of inequalities in life outcomes. Good outcomes can be attributed to good deeds done at a prior time in this life or a previous lifetime, and bad outcomes attributed to misdeeds. Karma also provides *prospective motivation*: Thinking about karma can motivate one's own current moral behavior. Specifically, karma encourages good deeds in the hopes of improving one's future outcomes and discourages immoral behavior with the threat of supernatural punishments (Converse et al., 2012; White, Kelly, et al., 2019; Willard et al., 2020). Through these effects, belief in karma likely culturally evolved as one of the world's diverse religious-meaning making systems: Karma belief can support interpersonal cooperation while also satisfying intrapersonal motivations for control and predictability in an uncertain world (White & Norenzayan, 2019). While prior research has found preliminary evidence that belief in karma can shape causal attributions and, in separate studies, prosocial behavior, it is currently unknown whether these two dimensions of karma (as retrospective explanation and prospective motivation) interact to shape prosocial behavior. Different facets of karmic belief support competing hypotheses about the association between karma, attributions, and prosocial behavior, which we describe below and summarize in Table 1.

Does Belief in Karma Encourage Victim Blaming?

One plausible prediction, focused on the role of karma as tool for retrospective explanation, is that belief in karma will increase victim blaming and subsequently decrease victim helping. If karma gives people the outcomes they deserve based on their actions, then believers can infer that victims of misfortune probably did something bad to

end up in their situation. Therefore, victims of misfortune do not deserve help. Karmic causality even allows believers to blame of ostensibly innocent victims, because karma can play out across multiple reincarnations and opaque causal processes. For example, karmic processes can explain why someone is born high or low status, or accumulates or loses wealth throughout their life, even if they did not commit any salient recent misdeeds. An association between karma and victim blaming would be consistent with evidence from Western samples that belief in a just world predicts greater blame, discrimination, and less willingness to help ambiguously responsible victims of poverty, illness, or sexual assault (e.g., Bègue & Bastounis, 2003; Bizer et al., 2012; Kaplan, 2012; Levy et al., 2009; Li et al., 2018; Russell & Hand, 2017; Sutton & Douglas, 2005). Recent studies have found that belief in karma is positively correlated with general belief in a just world (Chobthamkit et al., 2022; White, Norenzayan, & Schaller, 2019), greater immanent justice attributions (i.e., viewing current misfortune as caused by past misdeeds; Taylor et al., 2022; White et al., 2020), and more negative impressions of ostensibly innocent victims of accidents and assaults (White & Willard, 2024).

We test in Study 1 whether karma belief is also positively correlated with other attitudes that portray social inequalities as the legitimate outcomes of fair processes, such as Social Dominance Orientation (the belief that some social groups should dominate other and hold unequal power; Cotterill et al., 2014; Ho et al., 2012) and the Protestant Work Ethic (the belief that success is primarily achieved by hard work, discipline, and frugality; McHoskey, 1994). If this is the case, it would suggest that karma may have culturally evolved as part of system-justifying beliefs. Karma may legitimize societal inequalities and selectively direct prosociality toward privileged individuals at the expense of others who are in greater need.

Does Belief in Karma Encourage Helping?

An alternative prediction focuses on karma as a prospective motivational tool: Thinking about karma may encourage helping regardless of the attributions observers make for someone's misfortune, because people want to increase their own karmic merit. Helping and charitable giving are prototypical sources of karmic rewards (White & Norenzayan, 2022). If karmic merit can be improved by helping others (even others who are responsible for their present misfortunes), there might be a universal tendency for reminders of karma to encourage prosocial behavior. Stronger belief in a Just World predicts greater helping intentions (Igou et al., 2021; Zuckerman, 1975) and the prosocial pursuit of long-term goals (Hafer & Rubel, 2015). Previous studies of Eastern and Western samples have suggested potentially pervasive associations between karma and prosociality, such as documenting that reminders of karma increase generosity to strangers (Chen et al., 2022; White, Kelly, et al., 2019; Willard et al., 2020) and predict reduced revenge (Goyal & Miller, 2023), third-party punishment (Zhou et al., 2024), and dishonesty (Wiese, 2023).

Interactions Between Supernatural and Natural Explanations

A final possibility is that both retrospective explanations and prospective motivations interact, such that the effect of karma on generosity depends on who the recipient is. Rather than universally encouraging victim blaming or victim helping, thinking about karma may rather heighten believers' attention to reasons why someone is in need. These attributions may then moderate giving behaviors. People may expect to gain more karmic merit by giving to individuals who deserve good fortune because of their past good deeds and may perceive less benefit from giving to people who are personally responsible for their misfortune. Believers may thereby be more motivated to help virtuous victims. For instance, in Buddhist traditions giving to virtuous recipients such as monks is believed to garner greater karmic merit than giving the same amount to undeserving recipients (King, 2009). This process could manifest as reminders of karma leading to greater generosity toward people perceived to deserve help (i.e., those in need through no fault of their own), but not generate universal prosociality toward any recipient. Such moderation would indicate that patterns of karmic cognition are contingent upon more naturalistic patterns of attributions. This moderation would reveal important boundary conditions for when and how reminders of karma will generate prosocial behavior.

Cultural Variability in Karma Belief and Attributional Styles

To test the generalizability of these associations, our studies each recruited participants from three cultural groups: Hindus from India, Buddhists from Singapore, and a general sample from the United States (not filtered based on religion). These samples were all similar in being English-speaking computer-users from countries with moderate levels of income inequality. However, these cultures differ in several aspects of social cognition and religious beliefs. Belief in karma is typically stronger and is more embedded in daily life, among Indian and Singaporean samples than in the United States (White et al., 2021; White, Norenzayan, & Schaller, 2019; Willard et al., 2020). Previous studies have also documented that karmic punishments are perceived as more inevitable in Indian than U.S. samples, because they are expected to play out across reincarnations (Goyal & Miller, 2023). These cultural differences may affect the effectiveness of our karma salience manipulation.

The general willingness to use internal versus external attributions for misfortune may also differ between these samples. Substantial prior research has documented that U.S. samples often focus on internal explanations for all sorts of behaviors, including for misfortune (Gilbert & Malone, 1995). Indian and East Asian participants are more likely to make situational attributions (e.g., Choi & Nisbett, 1998; Miller, 1984). For example, participants in the United States tend to make internal attributions for poverty and show relatively low support for redistribution (Piff et al., 2020), whereas Indian youths more often endorse structural explanations for poverty (Nasser et al., 2005). There may be further differences due to different cultural narratives regarding the reasons for inequality (Oishi et al., 2022), such as inequalities caused by the Indian caste system (Bapuji & Chrispal, 2018), or the distinctly American value of the morality of effortful work, exemplified by the Protestant work ethic (Uhlmann & Sanchez-Burks, 2014). We therefore tested the generalizability of our results across these three distinct cultural samples, although we had no a priori predictions about specific cultural differences.

Overview of Current Studies

In three cross-cultural studies we investigated how karma affects patterns of attributions, generosity, and attitudes toward inequalities. Each study manipulated whether participants were thinking about karma or not while making their decisions, to test how actively applying salient karmic principles to understand life experiences shifts decision making. Studies 1 and 3 further manipulated whether participants were focused on how karma affects the outcomes of others (an orientation that might be most likely to encourage victim blaming) or how karma affects their own future outcomes (an orientation that may instead encourage victim helping). Together, the studies test whether karma is more likely to encourage (a) victim blaming and justification of systemic inequalities, (b) universal victim helping, or (c) whether karma-motivated generosity depends on the circumstances and identity of the recipient.

Study 1

Study 1 manipulated between-subjects whether participants were thinking about their own karmic outcomes, other people's karma, or a neutrally framed control condition. We measured how this karma framing affected several social attitudes, including willingness to share money and perceptions of social inequalities. We also measured associations between individual differences in karma belief and these social attitudes, due to the possibility that these attitudes reflect more stable individual differences in worldviews that may be better predicted by level of belief in karma than momentary activation of karma belief.

Method

Prior to conducting this study, the sampling strategy, methods, and planned analyses were preregistered on the Open Science Framework (https://osf.io/kbqr5/). Full details of all measures, manipulations, data, and analysis scripts from all studies can be accessed at https://osf.io/rjcsz/. We report all data exclusions, manipulations, and measures, and we report all preregistered analyses and mark deviations from the preregistered plan as exploratory. Studies were approved by the Behavioural Research Ethics Board at the University of British Columbia (protocol #H15-03085).

Participants

We recruited U.S. participants via Prolific and Indian and Singaporean participants via Qualtrics' panels to complete an online survey in return for a small monetary reward. We excluded participants who failed preregistered attention, English comprehension, and data quality checks. The final sample consisted of 708 Hindu Indians, 746 Buddhist Singaporeans, and 1,785 participants from the United States (see Table 2 for demographics of all samples). Due to cultural differences in mean levels of karma belief (most participants in Singapore and India score above scale midpoint, whereas most Americans score below scale midpoint), our preregistered analysis only included the subsample of Americans who believe in karma. However, we retained both believers and non-believers in the correlational analyses below to ensure enough variance in karma beliefs to predict individual differences. See Supplementary Materials for full details of data exclusions and statistical power checks.

Materials and Procedure

Karma Framing. After providing consent and basic demographics, participants were randomly assigned to three between-subjects conditions: They wrote about either (a) an event in one's own life that has been caused by karma, (b) an event that happened to someone they know or they witnessed happening to a stranger that was caused by karma, or (c) neutral control instructions that did not mention karma and merely told participants they will next answer several questions about their attitudes and beliefs. Participants in the karma-framed conditions were then reminded to "think about how your own actions affect your future outcomes [other people's outcomes in life are explained by their past actions], according to the law of karma. Answer these questions based on your beliefs about the law of karma." These direct manipulations serve to make the concept of karma salient to believers and encourage them to think about their own and other people's experiences through the lens of karmic causality. These instructions resemble explicit requests encountered in the real world to think about supernatural forces while making decisions. Prior research indicates that instructions to

Table 2. Demographic Characteristics of All Samples.

	Study 1			Study 2			Study 3		
Demographic Characteristic	India	Singapore	USA	India	Singapore	USA	India	Singapore	USA
N	708	746	1,785	236	413	413	533	527	893
Gender (% women)	52	51	56	32	46	55	39	45	42
Age (*M*)	34.38	38.4	39.34	33.97	32.39	32.37	30.75	35.72	33.79
Education (% >high school)		73	70	92	64	59	89	70	74
Income (median)	Rs 5,00,001–Rs 7,50,000	> $50,000	$50,000–$59,999	Rs 5,00,001–Rs 7,50,000	$10,000–$11,999	$40,000–$49,999	Rs 5,00,001 to Rs 7,50,000	$10,000–$11,999	$60,000–$69,999
Religion (%)									
Hindu	100		1	100		1	100		1
Buddhist		100	1		100	2		100	<1
Catholic Christian			12			11			26
Protestant or other Christian			26			29			30
Non-religious, atheist, agnostic			52			48			37
Other denominations			8			9			7
Belief in karma (*M* on 5-point scale)	3.96	3.62	2.44	3.97	3.66	2.6	4.04	3.65	2.96

make decisions in line with one's beliefs exert similar effects as subtler instructions to simply think about karma (or God, see Pasek et al., 2023; White, Kelly, et al., 2019). To accommodate non-believers, we instructed "If you don't believe in karma, write about an event that someone else might think was caused by karma." We excluded any participants who wrote that they did not believe in karma or other non-sensical responses.

Money Division Task. Participants imagined that they had $100 that they could give away, and they divided this money between different target recipients. On one trial (self vs. struggling stranger), participants decided how they would divide this money between "a person you have never met (a stranger) who is currently facing a lot of financial struggles" and oneself. On a second trial (self vs. religion), participants decided how they would divide this money between "a church [or temple] in your local religious community" and oneself. A third trial (struggling stranger vs. religion) asked how they would divide money between a stranger who was experiencing a lot of financial struggles and a church/temple in their local religious community.

Each decision was followed by questions asking who was more deserving of this money and who is more in need, on 5-point scales, scored so that higher values meant that more money or deservingness was allocated to the stranger versus self, religion versus self, and religion versus stranger.

Attitudes Toward Social Inequalities. Eight items measured subjective perceptions of inequality (Schmalor & Heine, 2019). Based on exploratory factor analyses (see Supplementary Materials), this measure was further divided into four items measuring the perceived *presence of income inequality in society* ($\alpha = .87$, for example, "Almost all of the money that is earned goes to only a few people") and four items measuring the perceived *unfairness of inequality* ($\alpha = .80$, "It is extremely unfair if the overall amount of economic inequality is very high").

Sixteen items measured Social Dominance Orientation (Ho et al., 2012), including eight items measuring belief that social hierarchies are appropriate and good (*SDO: Dominance*; $\alpha = .95$, for example, "Superior groups should dominate inferior groups"), and eight items measuring belief that equality is desirable (*SDO: Equality*; scored so that higher values indicate greater support for egalitarianism, $\alpha = .93$, for example, "Group equality should be our ideal").

A final 16 items measured Protestant Work Ethic ($\alpha = .90$; McHoskey, 1994) and captured the belief that hard work is virtuous and will be rewarded with success (e.g., "Anyone who is able and willing to work hard has a good chance of succeeding").

To reinforce our manipulation, while completing these questionnaires we again reminded participants in the karma framing conditions to report their answers "after considering how your life is [other people's lives are] affected by the law of karma."

Other Beliefs and Demographics. After completing these questionnaires, participants reported their belief in God and karma, spirituality, religiosity, religious attendance, social exposure to karma, general belief in a just world (Dalbert et al., 1987), socioeconomic status (subjective SES, education, income, and resource insecurity), relational mobility (Thomson et al., 2018), and COVID-related fears and stressors. The karma belief scale consisted of seven items ($\alpha = .94$), adapted from White, Norenzayan, and Schaller (2019), that assessed the central idea that good and bad actions beget good and bad outcomes due to karma. It included both items that refer rewards and punishments for moral behavior within one's current lifetime, items that referred to reincarnation and moral causality across reincarnations (e.g., "When people are met with misfortune, they have brought it upon themselves by behavior in a past life"), as well as items that explicitly refer to "karma" (see Supplementary Tables S3–S4 for all items and equivalence tests across countries).

Results

Preliminary Analyses. Mean levels of belief in karma were significantly higher among Indian Hindus than among U.S. participants $d = 1.72$, $t(1587) = 42.53$, $p < .001$, and higher among Singaporean Buddhists than U.S. participants, $d = 1.37$, $t(1926) = 35.84$, $p < .001$. The multi-item karma questionnaire had good internal reliability in all samples (the United States $\alpha = .91$; India $\alpha = .89$; Singapore $\alpha = .90$), indicating that in all countries people who explicitly reported belief in karma also agreed that karmic causality both explains current events and rewards/punishes current behavior with future outcomes. This confirms that karma believers endorse perspectives that might be relevant both to victim blaming and to victim helping. Karma belief did not significantly differ between karma frame conditions, in any country (the United States: $F(2, 1782) = 1.66$, $p = .19$, India: $F(2,699) = 1.31$, $p = .27$, Singapore: $F(2, 742) = 1.68$, $p = .19$), indicating that this score reflects stable individual differences.

Attitudes Toward Social Inequalities. Analyses were regression models predicting each dependent measure from belief in karma (centered), karma frame condition (dummy coded with the control framing as the reference group), and their interaction. As preregistered, we performed all analyses collapsed across samples from all three countries (with country fixed effects), as well as separately for participants from each country, to explore possible cross-cultural differences.

Across each of the dependent measures of participants' attitudes toward social inequalities, there was a consistent association between attitudes and individual differences in

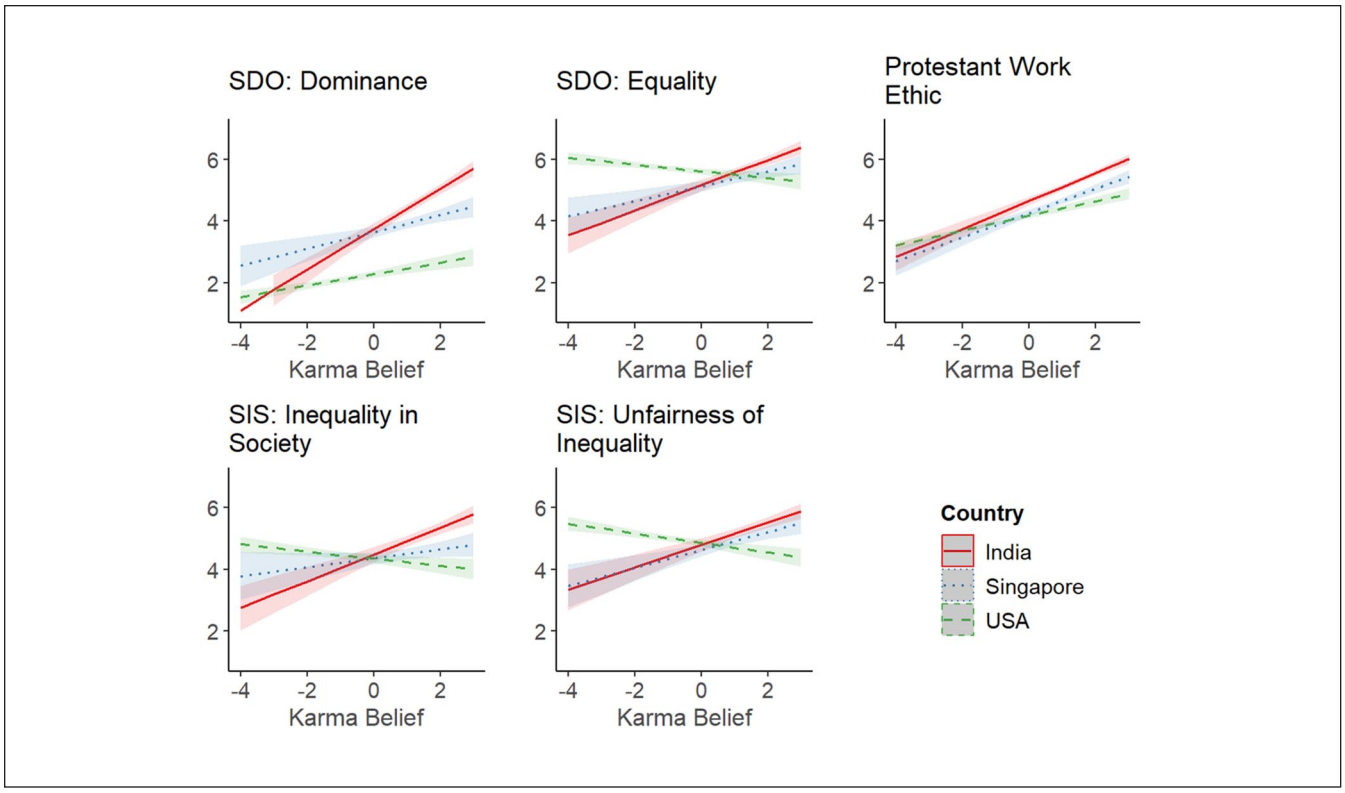

Figure 1. Association Between Belief in Karma (Centered) and Attitudes Toward Inequality, Within Each Country, Study 1. Regression Lines Include 95% Confidence Bands.

Table 3. Simple Effects of Karma Belief Predicting Attitudes Toward Social Inequality in Each Country, Drawn From Regression Models That Also Included the Karma Framing Effect and Framing-by-Belief Interaction, Study 1.

	India		Singapore		USA	
Dependent variable	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*
SDO: dominance	0.66 [0.53, 0.79]	<.001	0.27 [0.14, 0.40]	<.001	0.19 [0.12, 0.25]	<.001
SDO: equality	0.41 [0.32, 0.49]	<.001	0.24 [0.15, 0.33]	<.001	−0.11 [−0.18, −0.04]	.002
Protestant work ethic	0.45 [0.38, 0.53]	<.001	0.39 [0.32, 0.47]	<.001	0.24 [0.19, 0.29]	<.001
Presence of inequality	0.43 [0.32, 0.55]	<.001	0.14 [0.01, 0.28]	.037	−0.11 [−0.20, −0.03]	.007
Unfairness of inequality	0.36 [0.26, 0.46]	<.001	0.29 [0.18, 0.39]	<.001	−0.16 [−0.23, −0.08]	<.001

belief in karma. As depicted in Figure 1 and Table 3 (full model results are available in the Supplementary Materials), in all countries participants with stronger beliefs in karma were more likely to endorse the appropriateness of social hierarchies (SDO-Dominance) and the Protestant Work Ethic that success is the result of hard work. In the United States, belief in karma was also associated with weaker agreement that inequality is present and unfair, and less support for social equality (SDO-Equality). However, in India and Singapore, belief in karma was actually associated with stronger agreement that inequality is present and unfair, and stronger endorsement of social equality. The effect of karma framing on attitudes was only small, inconsistent, often non-significant, and did not match the pattern of association between belief in karma and attitudes (see Supplementary Tables S4–S13).

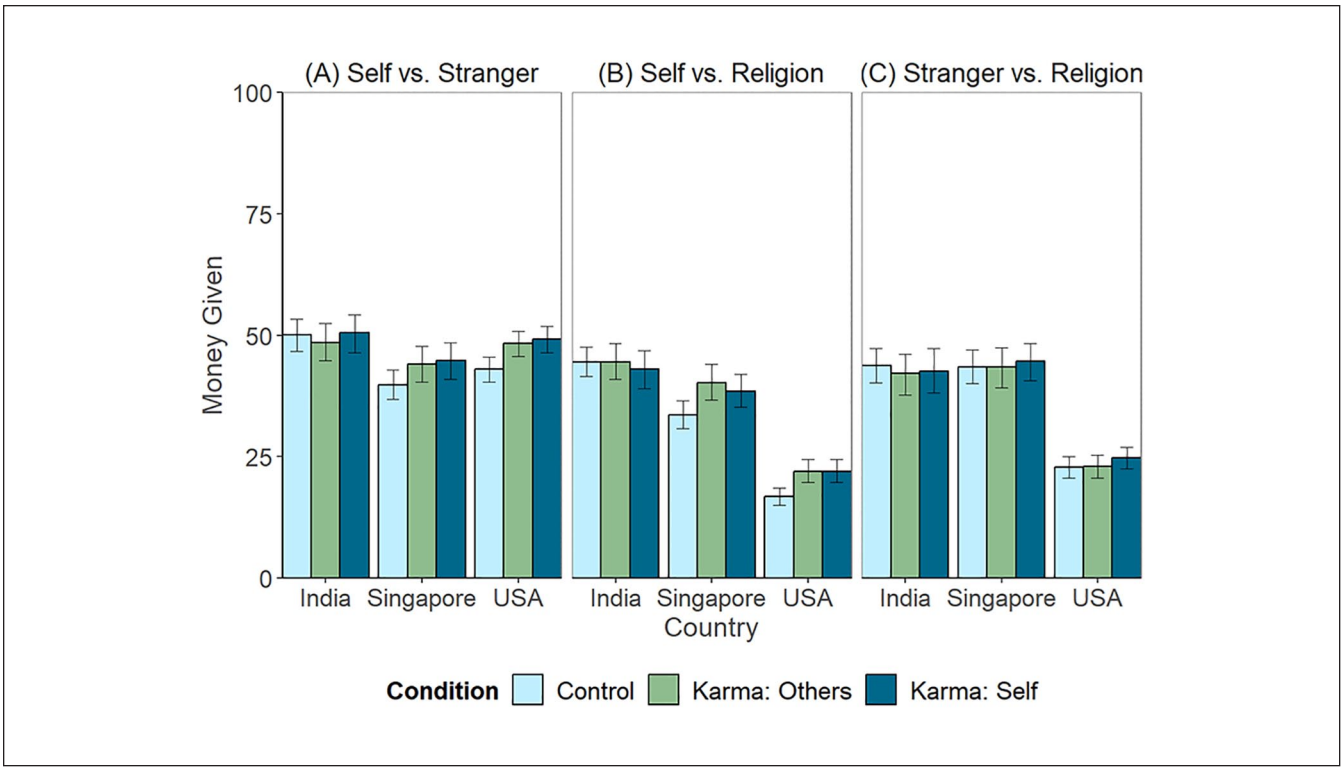

Figure 2. Money Given to (A) a Struggling Stranger, Rather Than Kept for Oneself, (B) a Religious Organization, Rather Than Kept for Oneself, and (C) a Religious Organization Rather Than a Struggling Stranger, Within Each Karma Framing Condition in Each Country, Study 1. Error Bars Indicate 95% confidence Intervals of the Mean.

Money Division Task. We used the same regression modeling strategy to predict money division decisions from karma framing, karma belief, and their interaction. These models tested whether karma makes people more generous to an overtly virtuous recipient (a local religious group) or an ambiguously virtuous recipient (a stranger, who could be interpreted as suffering karmic punishment through financial hardship), rather than keeping money for oneself. There was some evidence of both a karma framing effect (depicted in Figure 2) and an association between belief in karma and giving (depicted in Figure 3), although there were no significant interactions between karma belief and karma framing effects in any country ($ps > .46$).

When choosing between giving money to a stranger in financial need or keeping it for oneself, there was a positive correlation between belief in karma and generosity in India, $b = 3.86$ [1.25, 6.48], $p = .004$, but not significantly in the United States or Singapore. Thinking about karma increased generosity in the United States, own karma: $b = 6.01$ [2.44, 9.57], $p = .001$, other's karma: $b = 5.15$ [1.58, 8.72], $p = .001$, and marginally in Singapore, others' karma: $b = 4.05$ [−0.86, 8.97], $p = .106$, one's own karma: $b = 4.82$ [−0.06, 9.69], $p = .053$, but not in India.

When choosing between giving money to a religious organization or keeping for oneself, there was a positive correlation between belief in karma and generosity in India, $b = 6.86$ [4.27, 9.45], $p < .001$, the United States, $b = 4.08$ [2.66, 5.51], $p < .001$, and in the same direction but non-significantly in Singapore, $b = 2.34$ [−0.59, 5.28], $p = .117$. Thinking about karma also increased generosity in the United States, others' karma: $b = 4.77$ [1.82, 7.72], $p = .002$, one's own karma: $b = 4.80$ [1.85, 7.74], $p = .001$, and Singapore, others' karma: $b = 6.11$ [1.52, 10.70], $p = .009$, one's own karma: $b = 4.59$ [0.04, 9.13], $p = .048$, although not in India.

When choosing between giving money to a religious organization or to a stranger in financial need, there was no significant effect of karma framing condition, $ps > .30$, but belief in karma positively predicting giving to the religious organization instead of the struggling stranger in India, $b = 3.13$ [0.26, 5.99], $p = .032$, and the United States, $b = 4.15$ [2.59, 5.72], $p < .001$, but not in Singapore.

Exploratory follow-up analyses (see Supplementary Materials) indicated that each of these decisions about money were strongly correlated with the perception that the recipients are in need of and deserving of the money, stranger versus self: $r > .27$, religion versus self: $r > .31$, religion versus stranger: $r > .29$.

Discussion

Study 1 found correlational evidence that karma believers are more likely to perceive social inequalities as appropriate and fair based on one's personal efforts, such as endorsing Social Dominance Orientation, Protestant Work Ethic, and a greater

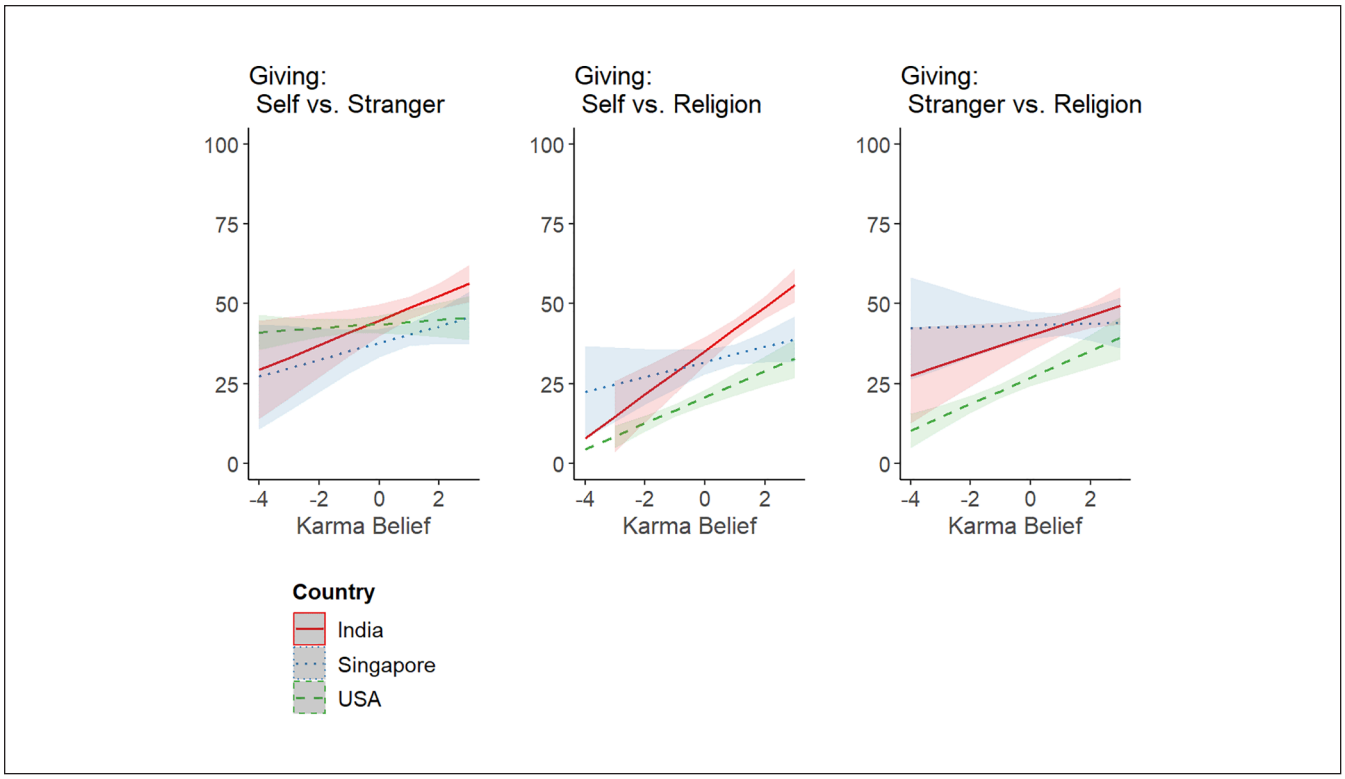

Figure 3. Association Between Belief in Karma (Centered) and Money Given to (left) a Struggling Stranger, Rather Than Kept for Oneself, (middle) a Religious Organization, Rather Than Kept for Oneself, and (right) a Religious Organization Rather Than a Struggling Stranger, Within Each Country, Study 1. Regression Lines Include 95% Confidence Bands.

willingness to give money to a religious organization instead of a stranger in financial need. However, karma also predicted increased generosity, such as a willingness to give money to a stranger or a religious organization rather than keep it for oneself. Effects were especially consistent in the United States and also appeared for many outcome measures in Singapore and India. These results were consistent with both the hypothesis that karmic beliefs can motivate prosocial behavior and the prediction that karma can justify victim derogation, although they may do so across different contexts. To provide a better test of these competing effects of karma within the same context, Studies 2 and 3 manipulated the reason for a target's need, and measured whether these attributions moderated the effect of karma on victim blaming and helping.

Study 2

Study 2 focused on measuring generosity toward strangers in need. We manipulated both reminders of karma and the reason for recipient's need, to directly test whether karma's effect on helping versus derogation of victims depends on attributions for the victim's misfortune. We predicted that reminders of karma would likely increase generosity toward externally affected needy recipients, due to the perception that giving to deserved recipients would increase one's own karmic merit. However, if someone is plausibly personally responsible for their misfortune, this may instead evoke ideas of justified karmic punishments for misdeeds and thereby reduce generosity. We also included a control recipient who was not especially needy and therefore is more comparable to prior studies that measured generosity toward anonymous recipients (e.g., White, Kelly, et al., 2019). We focus in Studies 2 and 3 on the effects of manipulated karma salience in samples of believers, rather than individual differences in karma belief, to provide a more powerful experimental test of the causal impact of thinking about karma on giving. Previous studies find a more robust effect of religious primes on prosocial behavior than associations between individual differences in religiosity and prosocial behavior (see Kelly et al., 2024). We therefore focus analyses below on the experimental effects of karma framing and manipulated attributions for need (individual differences in karma belief had minimal associations with giving; see additional analyses in the Supplementary Materials).

Method

Prior to conducting this study, the sampling strategy, methods, and planned analyses were preregistered on the Open Science Framework (https://osf.io/fxqgv/).

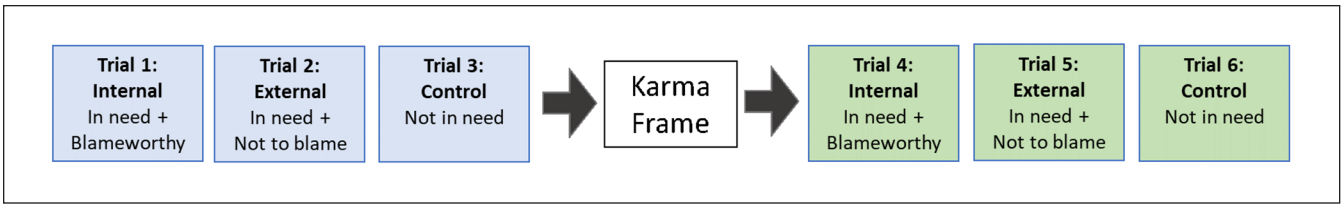

Figure 4. Repeated-Measures Design in Studies 2 and 3. Different Targets (Internal, External, Control) Were Presented in a Random Order, With One of Each Presented Before the Karma Framing Manipulation and One of Each Presented After.

Participants

Using the same recruitment, sampling method, and exclusion criteria as in Study 1, the final sample consisted of 236 Hindu Indians, 208 Buddhist Singaporeans, and 413 participants from the United States. As preregistered, these analyses only included the subset of U.S. participants who scored above scale midpoint on their belief in karma (n = 222), to give us the best chance of detecting karma framing effects that are typically more reliable among believers (Shariff et al., 2016; White, Kelly, et al., 2019). Additional analyses, available in the Supplementary Materials (Tables S41–S47), find no main effect of belief in karma on giving, similar results between U.S. believers and non-believers, and only find a significant moderation of the karma framing effect in Singapore (with the results reported below even stronger among Singaporeans high in karma belief).

Materials and Procedure

After providing consent and basic demographics, participants performed a money division task with six different target recipients (adapted from the within-subjects repeated dictator game used by White et al., 2019). Participants imagined that they were given a bonus payment of $100 they could share with another randomly selected participant. Participants were told they would make this money division several times, with different recipients, each portrayed through a brief description of their current circumstances. For each trial, participants read a brief description of the recipient and reported how much money they would share. They then rated how much the recipient is in need of and deserving of help, attributions for the recipients' status in life, and overall impressions of each recipient. As depicted in Figure 4, the six trials manipulated within-subjects descriptions of the recipient (as in need due to external factors, in need due to external factors, or not in need), and whether participants were thinking about karma, with three judgments made before reminders of karma and three after.

Recipient Description Manipulation. Recipient descriptions were manipulated to portray the recipient as (a) in need due to internal factors that would make them seem responsible and blameworthy for their misfortune, (b) in need due to external factors that would not make them responsible nor blameworthy, or (c) not in need, as a control condition.

The internally responsible recipient (a) was described as engaging in behavior that directly caused their negative outcomes and financial hardship, such as "I was recently fired from my job. I didn't really like the job, and I didn't take it very seriously or put in much effort, but I needed the job." In contrast, the externally influenced recipient (b) was described as experiencing financial hardship due to factors outside their control, such as "I was recently fired from my job. I really liked the job, and I took it very seriously and put in a lot of effort, but the company needed to downsize and they fired more junior people like me." Each description was drawn from one of four possible scenarios, which described health-related or employment-related behavior that led to financial hardship.

The control recipient (c) included a brief statement that described them as not especially in need (e.g., "I make money by taking surveys like this one. I am not struggling right now"), thus providing a recipient who is most comparable to prior studies employing economic games with anonymous recipients.

Participants completed the money division task three times before being reminded of karma. Then they were asked to think about karma when making another set of three decisions toward three new recipients. Recipients were described with different ages, genders, and ID numbers and all recipients were from participants' home country. Description content was randomly paired to condition for each trial, and presentation order was randomized across participants.

Money Division and Evaluations of Each Recipient. For each trial, participants read a brief description of each recipient, and first reported "How much of the $100 bonus would you want to give to Participant [#]?" and answered an open-ended question asking, "Why do you think that is the right amount to give away to Participant [#]?" Participants then evaluated whether the recipient is "in need of help from other people" and "deserves to receive help from other people, when [s]he is in need," both on 7-point scales ranging from *not at all* to *definitely.* Three additional items assessed whether the best explanation for the recipients' situation in life is internal factors or external factors, including "decisions he had complete control over or factors outside his

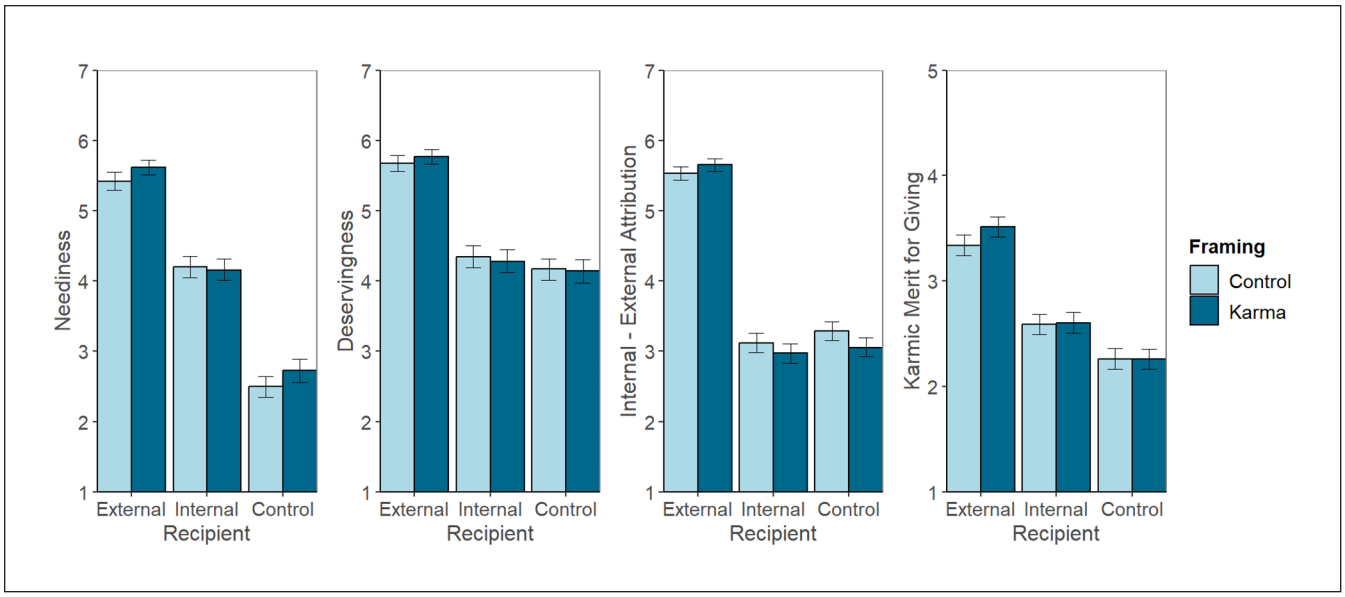

Figure 5. Neediness, Deservingness, Attributions, and Merit for Giving to Each Recipient Depending on Recipient Condition and Karma Framing Condition, Collapsed Across All Countries, Study 2. Error Bars Indicate 95% Confidence Intervals of the Mean.

control," "his personal actions or societal factors unaffected by his efforts," and "something about him or something about the situation he is in." These three items were scored so that higher values on the 7-point scale indicate greater external attributions and averaged into a composite (α = .91). Finally, participants reported their overall impression of the recipient on a 7-point scale ranging from *extremely negative* to *extremely positive.* They then proceeded to another trial containing a description of a new recipient, and answered the same questions, for a total of six trials.

Karma Framing Manipulation. After making money division and attribution decisions for three neutrally framed recipients, participants were explicitly instructed to think about karma. Participants read that

> We will ask you to make several more decisions about sharing money, but before you make each decision please think about karma. Make your decisions based on what your belief in the law of karma would lead you to do.

Each block of questions in the karma-framed conditions included further reminders to answer "after considering karma," to ensure that karma remained salient.

Perceived Merit From Giving. After making decisions about all six recipients, participants were presented with the six recipient descriptions again and reported how much karmic merit they would gain by giving money to each recipient (5-point scale ranging from 1 = *none at all* to 5 = *a great deal*).

Additional Individual Differences and Demographic Measures. After completing these focal trials, participants provided details of their personal religious beliefs, level of belief in karma, socioeconomic status, and COVID-related fears and stressors, using the same measures as in Study 1.

Results

Analyses used multi-level models to predict the outcome variables from recipient condition (externally caused, internally responsible, or control recipient) and karma framing condition (pre- vs. post-karma frame), and the interaction between recipient and karma framing (all dummy coded). The analyses also included random intercepts for participants, to account for the repeated-measured nature of the data. We performed analyses separately for participants in each country and performed a more powerful, comprehensive analysis that included participants from all countries and country fixed effects.

Predicting Need, Deservingness, and Attributions

As a manipulation check, we first used this regression model to predict perceptions of the recipient across conditions. Results, depicted in Figure 5 and Tables S31 to S36, confirmed that in all countries the external recipient, who we depicted as suffering financial hardship through no fault of their own, was rated as significantly more in need (bs > 0.85, ps < .001), deserving (bs > .92, ps < .001), and affected by external circumstances (bs > 1.45, ps < .001), compared to the internal and control recipients. As evidence against a pervasive effect of karma on victim blaming, thinking about karma did not lead to more internal attributions for the externally affected recipient, b = 0.12 [−0.03, 0.26], p = .13. There was also no significant

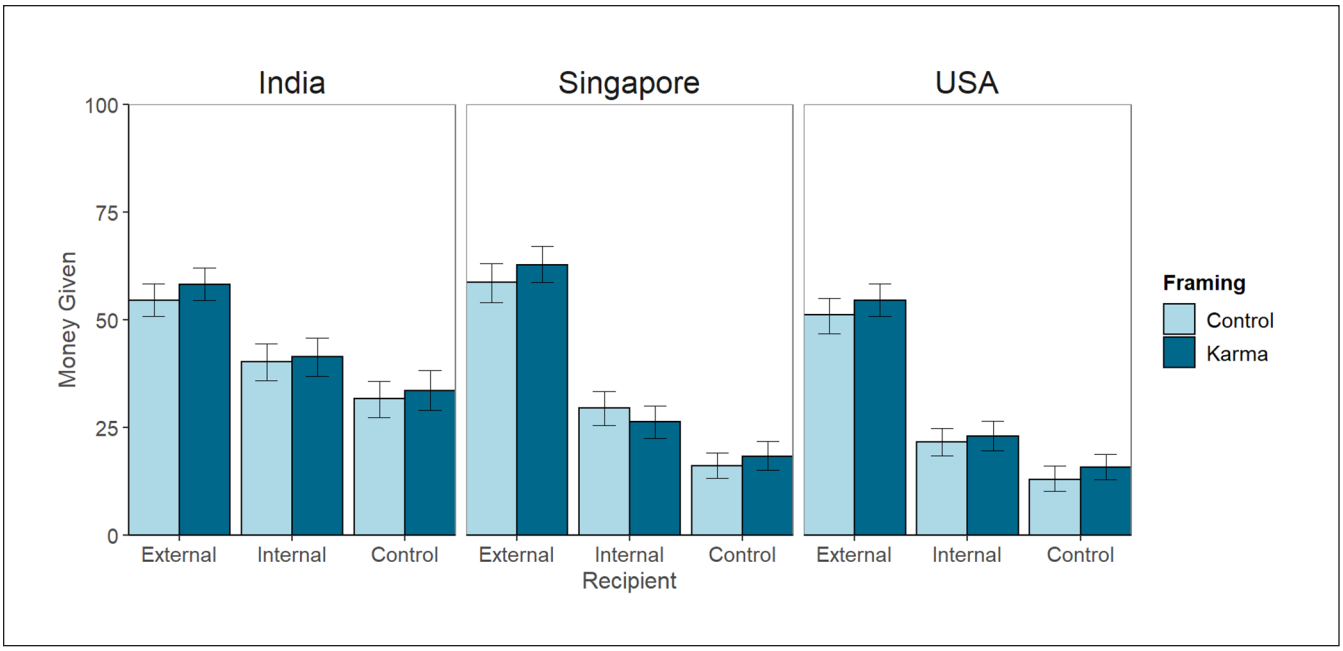

Figure 6. Money Given to Each Recipient Depending on Recipient Condition and Karma Framing Condition, Within Each Country, Study 2. Error Bars Indicate 95% Confidence Intervals of the Mean.

effect of thinking about karma on perceptions of deservingness, *p*s > .20. Exploration of participants' open-ended responses (reported in the Supplementary Materials) likewise showed that participants rarely mentioned internal attributes (<4% of responses) when explaining their reason for giving to the externally influenced target. Participants did not spontaneously focus on victim's internal characteristics when we described a salient external cause for their misfortune.

Predicting Giving

We next investigated how thinking about karma and recipient condition affected generosity. As depicted in Figure 6 and Tables S37 to S38, there was a large effect of recipient condition on giving, such that the most money was given to the recipient who was in need for external reasons, less to the recipient in need due to internal factors (*b*s > −14.34, *p*s < .001), and the least was given to the control recipient who was not obviously in need (*b*s > −22.88, *p*s < .001). There was also a smaller karma framing effect that depended on recipient and country (Table 4). Thinking about karma consistently increased generosity toward the externally affected recipient, although this effect only reached statistical significance in the overall analysis, likely due to the reduced power with each separate country. There was also a marginally significant effect of thinking about karma on giving to the control recipient, in the overall analysis. There was no trend toward increased giving toward internally responsible recipients.

Predicting Merit

We also used this modeling strategy to predict the perception that karmic merit can be gained by giving to each recipient. Participants in all three countries reported that they could earn the most karmic merit by giving to the externally affected recipient, the least from giving to the control recipient, and a moderate amount by giving to the internally responsible recipient (Figure 5 and Tables S39–S40). Thinking about karma slightly increased perceptions of merit from giving to the external recipient, in the overall analysis $b = 0.17$ [0.08, 0.27], $p < .001$, and marginally within each individual country, but karma did not cause increased perceptions of merit for giving to the internally responsible or control recipient, *p*s > .45. Perceptions of karmic merit were highly correlated with the amount of money given away, $r(3981) = .56$ [0.54, 0.58], $p < .001$.

Predicting Giving From Perceptions of Need, Deservingness, and Attributions

After investigating the effect of experimental conditions on giving, we next used multiple regression to predict giving from participants' subjective perceptions of the recipients' level of need, deservingness, and their attributions to external versus internal factors, as well as interactions between these variables and our karma framing manipulation. We initially preregistered two models that separately examined deservingness and attributions, but exploratory analyses revealed that both uniquely contribute to giving, therefore

Table 4. Simple Effects of Karma Framing Condition on Money Given Across Recipient Condition and Country, Study 2. Unstandardized Coefficients Can Be Interpreted as Changes in Dollars Given to Each Recipient When Thinking About Karma.

	Overall		India		Singapore		USA	
Recipient	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*
External	3.76 [1.14, 6.08]	.001	3.72 [−0.19, 7.63]	.062	4.18 [−0.30, 8.66]	.068	3.42 [−0.02, 6.86]	.052
Internal	−0.15 [−2.47, 2.17]	.90	1.24 [−2.67, 5.15]	.53	−3.31 [−7.79, 1.17]	.15	1.33 [−2.11, 4.77]	.45
Control	2.27 [−0.05, 4.59]	.056	1.94 [−1.97, 5.86]	.33	2.11 [−2.37, 6.59]	.36	2.75 [−0.69, 6.19]	.12

Table 5. Predicting Giving From Need, Deservingness, External Attributions, and Karma Framing Condition. Interactions With Karma Framing Conditions Indicate Whether the Framing Moderates the Relationship Between Predictors and Giving. Framing Reference Group = Control Frame, Study 2.

	All		India		Singapore		USA	
Predictors	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*
Intercept	42.75 [39.87, 45.64]	<.001	42.41 [38.95, 45.86]	<.001	34.86 [32.00, 37.72]	<.001	29.24 [26.50, 31.99]	<.001
Need	6.11 [5.55, 6.67]	<.001	4.94 [3.70, 6.18]	<.001	7.57 [6.56, 8.58]	<.001	5.66 [4.90, 6.41]	<.001
Karma frame	1.79 [0.68, 2.89]	.002	2.48 [0.58, 4.38]	.011	1.35 [−0.72, 3.42]	.199	1.51 [−0.20, 3.21]	.083
External attribution	3.59 [2.95, 4.23]	<.001	1.42 [0.11, 2.73]	.034	5.23 [4.09, 6.37]	<.001	3.31 [2.40, 4.22]	<.001
Deservingness	2.21 [1.47, 2.95]	<.001	3.13 [1.76, 4.50]	<.001	0.83 [−0.57, 2.23]	.244	3.08 [1.98, 4.17]	<.001
Karma frame × Need	−1.39 [−2.26, −0.53]	.002	−0.78 [−2.70, 1.15]	.427	−2.72 [−4.26, −1.18]	.001	−0.73 [−1.91, 0.44]	.219
Karma frame × External attribution	1.58 [0.65, 2.51]	.001	2.36 [0.42, 4.31]	.017	1.15 [−0.48, 2.78]	.166	1.6 [0.26, 2.94]	.019
Karma frame × Deservingness	0.47 [−0.63, 1.56]	.403	0.27 [−1.82, 2.36]	.799	2.16 [0.18, 4.14]	.033	−1.12 [−2.78, 0.55]	.188
Country [Singapore]	−8.16 [−12.29, −4.03]	<.001						
Country [USA]	−13.66 [−17.72, −9.60]	<.001						

Table 5 presents a comprehensive model including all variables.

As depicted in Figure 7, participants gave more money to recipients perceived as more in need, more deserving of help, and whose circumstances were attributed to external (vs. internal) factors. However, the strengths of these relationships were moderated by thinking about karma. Associations between need a giving was slightly weaker when thinking about karma, and the association between external attributions and giving was slightly stronger when thinking about karma.

To further explore why participants chose to give more money to some recipients than to others, we further coded participants' open-ended explanations for giving for themes pertaining to need, internal and external attributions, deservingness, and karma. The pattern of results, available in the Supplementary Materials (Figure S3–S4), echoes the findings from the closed-ended questions: Need and attributions both predict giving, and participants thinking about karma were especially likely to mention internal/external factors as a justification for giving.

Discussion

The results of Study 2 were most consistent with the hypothesis that karma's effect on generosity is moderated by recipient characteristics. Giving is associated with both recipients' level of need as well as their reasons for being in need, and

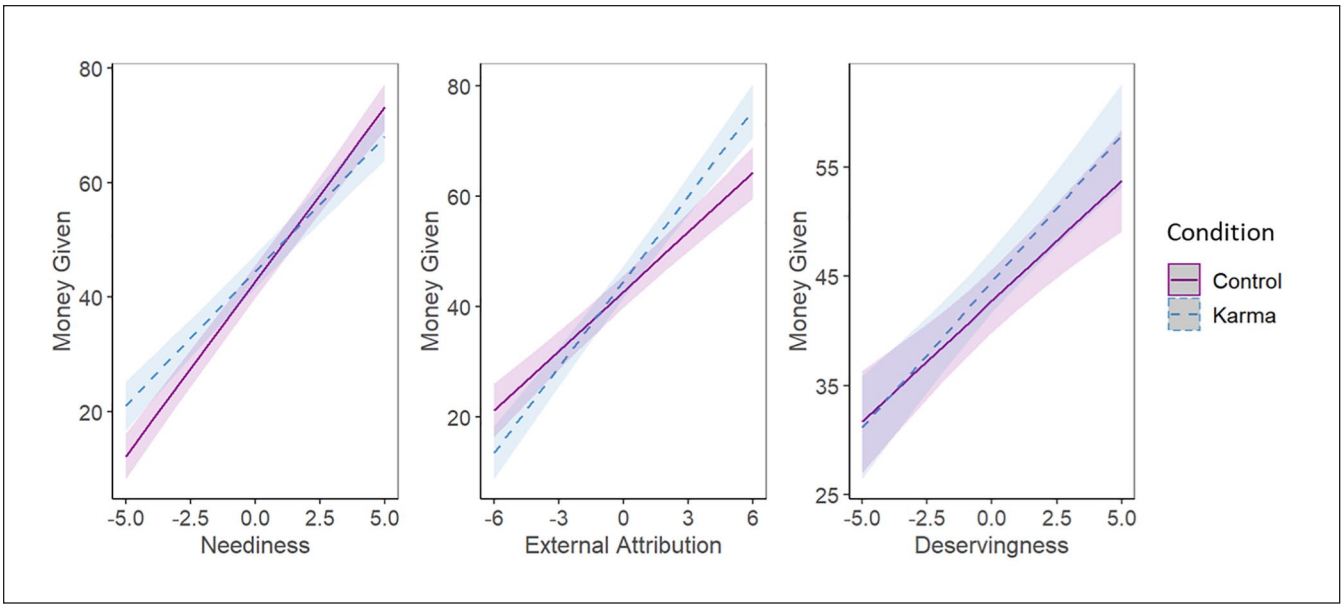

Figure 7. Association Between Perceptions of Neediness, External Attributions, Deservingness, and Money Given Away, as Moderated by Karma Framing Condition, All Countries, Study 2. Regression Lines Include 95% Confidence Bands.

thinking about karma is most likely to increase generosity toward recipients who are in need through no fault of their own. This pattern appeared consistently, both in aggregate analyses and within each country, but the effects of thinking about karma were small and did not reach statistical significance within each country.

Study 3

Study 3 replicated Study 2's main findings with a larger sample. We also gave participants real monetary stakes, rather than a hypothetical money sharing task, to decrease the likelihood of participants simply acting in line with experimental demands. Study 3 also added a manipulation of whether the karma frame focused participants' attention on karmic repercussions for their own actions (the orientation most likely to increase generosity) or on other people's karmically caused outcomes (the orientation most likely to elicit victim blaming), to test whether the karma framing effects depend on which aspect of karma is most salient.

Method

Prior to conducting this study, the sampling strategy, methods, and planned analyses were preregistered on the Open Science Framework (https://osf.io/xa9zy/).

Participants

Using the same recruitment, sampling method, and exclusion criteria as before, the final sample consisted of 533 Hindu Indians, 527 Buddhist Singaporeans, and 893 participants from the United States, of whom 471 were karma believers included in the final sample. The remaining 422 U.S. nonbelievers were removed as part of the preregistered analysis strategy.

Materials and Procedure

This procedure was identical to that in Study 2, with two changes: First, rather than hypothetical choices, participants were told that they could win real bonus money based on their decisions, based on a lottery that would randomly select a few participants and pay them based on their choices (participants were selected and paid after data collection was complete). At the end of the survey, participants reported their confidence that the other people in the study were real (participants were on average quite confident that the money and recipients were real: $M = 4.95$, $SD = 1.75$, 82% at or above midpoint, on a 7-point scale).

Second, instead of simply asking participants to think about karma while making the second round of decisions, participants were randomly assigned to one of two conditions: In the Self condition, participants were reminded that "Many people believe that when you do a good deed this creates merit that makes you more likely to experience good fortune in the future. In contrast, doing bad deeds is believed to increase your chance of misfortune" and instructed to think about "how your own actions affect your future outcomes, according to the law of karma." The Other condition reminded participants that "Many people believe that other people's good fortune is caused by the karmic merit created

by their past good deeds. In contrast, people's misfortune can often be explained by their past bad deeds" and instructed them to "think about how other people's outcomes in life are explained by their past actions, according to the law of karma." These prompts therefore somewhat confound self-other focus with prospective versus retrospective focus on karmic causality, but it was selected as the most powerful way to find divergent impacts on generosity, because we theorized that *increased* generosity should be motivated by a focus on future karmic benefits to oneself, whereas *decreased* generosity should be motivated by a focus on other people's past bad deeds.

Results

Using the same multiple regression analysis as in Study 2, we predicted each outcome variable from recipient condition (externally caused, internally responsible, or control recipient), karma framing condition (pre-karma frame vs. post-own-karma frame or pre-karma frame vs. post-other's-karma frame), and the interaction between recipient and karma framing. As in Study 2, the primary analysis only included the 471 U.S. participants classified as karma believers (results are similar when including all U.S. participants, and there was a small positive correlation between belief and giving, but level of belief did not significantly moderate karma framing effects; see Supplementary Materials Tables S69–S75).

Predicting Need, Deservingness, and Attributions

Results from models predicting perceptions of the recipient, depicted in Supplementary Tables S57 to S62, confirm that our manipulation was effective in portraying the externally responsible recipient as more in need, more deserving of help, and more affected by external circumstances than the internally responsible and control recipients, bs > 1.01, ps $<$ .001. The karma frame did not significantly impact participants' attributions for the internally responsible or externally affected recipient. This replicates Study 2: thinking about karma did not increase victim blaming when there was a salient external explanation for someone's financial hardship. Exploration of participants' open-ended responses further confirm that participants rarely mentioned internal attributes ($<$5% of responses) when explaining giving to the externally influenced target.

Predicting Giving

As depicted in Figure 8 and Tables S63 to S64, using an analogous model predicting giving, there was a large effect of recipient condition (more giving to externally affected recipient, bs > -11.16, ps $<$ .001), in addition to a smaller effect of karma framing on giving (simple effects in Table 6). As in Study 2, both karma framing conditions increased generosity toward the externally affected recipient (a pattern that is statistically significant in the overall analysis and in Singapore and the United States, and in the same direction but non-significant in India). Thinking about karma did not increase generosity toward the internally responsible recipient, and only significantly increased generosity toward the control recipient in the United States.

Predicting Merit

Using the same modeling strategy to predict karmic merit, we found that participants expected to earn more karmic merit by giving to the externally affected recipient, least from giving to the control recipient, control versus external $b = -1.02$ [−1.09, 0.95], and a moderate amount by giving to the internally responsible recipient, internal versus external $b = -0.65$ [−0.71, −0.58], ps $<$ .001. Thinking about one's own karma significantly increased the perceived karmic merit of giving to the externally affected recipient, overall analysis $b_{self} = 0.17$ [0.09, 0.26], $p < .001$, but thinking about other people's karma did not similarly increase perceived merit. Instead thinking about others' karma slightly decreased the perceived merit of giving to the internally responsible recipient, overall analysis, $b_{others} = -0.10$ [−0.19, −0.02], $p =$ .018, while thinking about one's own karma did not similarly decrease giving. Neither framing significantly affected perceived merit of giving to the control recipient.

Predicting Giving From Perceptions of Need, Deservingness, and Attributions

The final regression analysis predicted giving from karma frame condition, perceptions of the recipient (need, deservingness, attributions, and merit for giving), and all interactions between karma frame conditions and perceptions. As depicted in Figure 9 and Table 7, participants gave more money to recipients who they perceived as more in need, more deserving of help, whose circumstances were attributed to external (vs. internal) factors, and when giving would generate more karmic merit. However, thinking about karma affected the strengths of these relationships, such that the association between need a giving was slightly weaker when thinking about karma, and the association between external attributions and giving was slightly stronger when thinking about karma. Deservingness and merit were more weakly and inconsistently moderated by karma.

Participants' open-ended explanations for giving further demonstrate the combined importance of need and deservingness in predicting giving. Participants gave more money away when they mentioned need and external factors in their open-ended explanations for giving, and they gave less money away when they listed internal factors, and these relationships were present in both the control-framed and karma-framed conditions. Full details of participants' open-ended

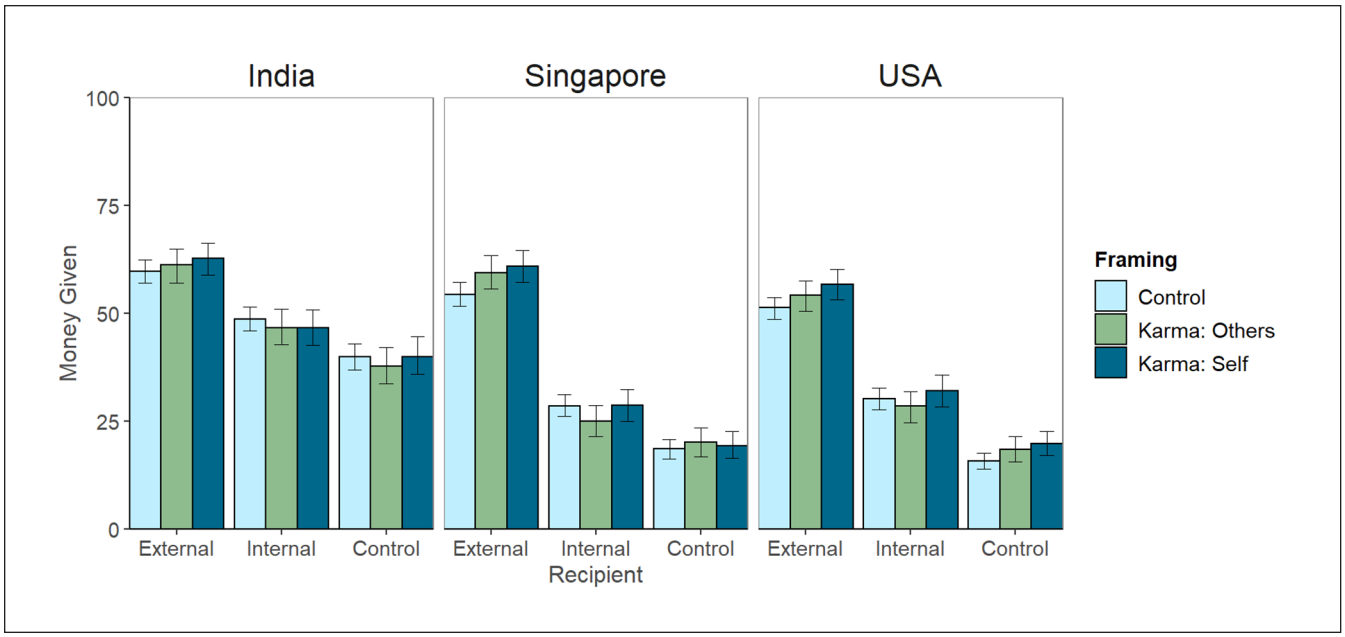

Figure 8. Money Given to Each Recipient Depending on Recipient Condition and Karma Framing Condition, Within Each Country, Study 3. Error Bars Indicate 95% Confidence Intervals of the Mean.

Table 6. Simple Effects of Karma Framing Condition (vs. Control Framing) on Money Given Across Recipient Condition and Country, Study 3. Unstandardized Coefficients Can Be Interpreted as Changes in Dollars Given to Each Recipient When Thinking About Karma.

	Overall		India		Singapore		USA	
Recipient/frame	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*
External recipient								
Karma: Others	3.30 [1.33, 5.27]	.001	2.18 [−1.19, 5.56]	.205	5.13 [1.67, 8.58]	.004	3.14 [−.05, 6.34]	.054
Karma: Self	4.77 [2.82, 6.72]	<.001	2.24 [−1.23, 5.71]	.206	6.33 [2.97, 9.70]	<.001	5.19 [2.09, 8.29]	.001
Internal recipient								
Karma: Others	−1.92 [−3.89, 0.05]	.056	−1.19 [−4.57, 2.18]	.488	−3.38 [−6.84, .07]	.055	−1.33 [−4.52, 1.87]	.416
Karma: Self	−0.41 [−2.36, 1.54]	.682	−2.57 [−6.04, .90]	.146	−0.01 [−3.37, 3.36]	.997	1.55 [−1.55, 4.65]	.326
Control recipient								
Karma: Others	1.03 [−0.94, 3.00]	.306	−1.50 [−4.87, 1.88]	.384	1.69 [−1.76, 5.15]	.337	3.01 [−0.18, 6.21]	.065
Karma: Self	1.12 [−0.84, 3.07]	.262	−0.64 [−4.11, 2.82]	.716	0.65 [−2.71, 4.01]	.705	3.81 [0.71, 6.91]	.016

explanations for giving are available in the Supplementary Materials.

Discussion

Study 3 replicated the pattern of findings from Study 2, such that when participants think about karma their decisions about money continue to be motivated by more mundane reasons for giving: The most money is consistently given to the recipient who was in greater financial need, through no fault of their own, and thinking about karma (one's own or other people's) increased giving toward this externally affected victim of misfortune. Thinking about karma also led to a slightly stronger association between attributions and giving. Giving was strongly predicted by expectations about the degree of karmic merit that could be gained by giving. These findings are most consistent with the hypothesis that karma's effect on generosity affects, and is affected by, mundane attributions for need, rather than uniformly encouraging victim blaming or victim helping. They also suggest that

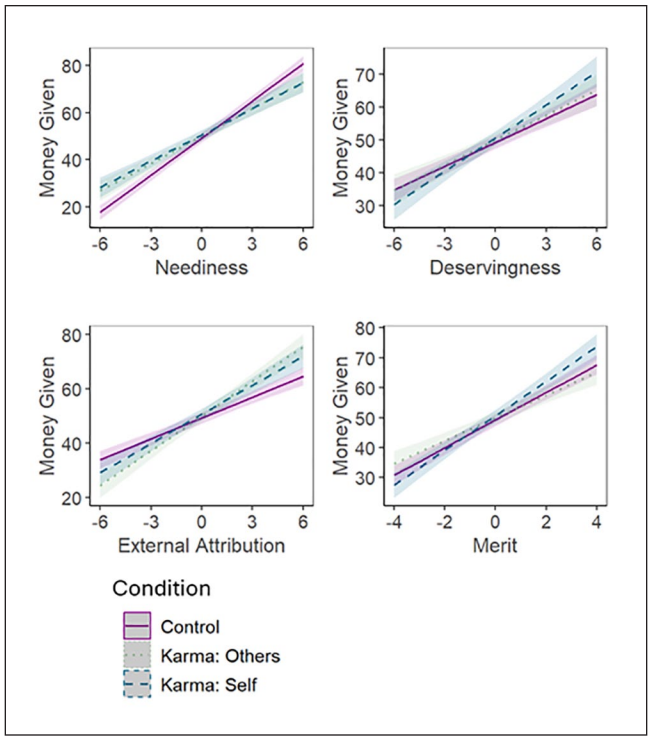

Figure 9. Association Between Perceptions of Neediness, External Attributions, Deservingness, Merit, and Money Given Away, as Moderated by Karma Framing Condition, All Countries, Study 3. Regression Lines Include 95% Confidence Bands.

reminders of karma elicit patterns of prosociality that are perceived to be most beneficial to oneself, as well as being calibrated to the neediness of the recipient.

General Discussion

Three studies demonstrated the relationship between karmic beliefs, attitudes, and prosocial behaviors. Study 1 found some support for the hypothesis that karma allows believers to justify systemic inequalities by providing a retrospective explanation for why some people attain more status and success than others. Belief in karma was positively correlated with endorsement of Social Dominance Orientation, Protestant Work Ethic, and (in the United States) lower perceptions that economic inequality is present and unfair. However, reminders of and belief in karma also predict less selfishness, consistent with prediction that karma also encourages prosociality.

Studies 2 and 3 provided a more direct test of these competing influences of karma beliefs by assessing how reminders of karma affected generosity toward recipients who differ in their reasons for financial need. Results reveal hypothesized interactions between reminders of karma and attributions for need. The most money was consistently given to recipient in need through no fault of their own. Thinking about karma consistently increased generosity toward this blameless victim. However, thinking about karma did not encourage greater generosity toward a recipient who was in need due to their own personal failings and misbehavior. This provides evidence of an interaction between retrospective explanations for misfortune and karmic motives for generosity. Importantly, similar patterns emerged in hypothetical judgments and in decisions about sharing real money that are less susceptible to experimental demand characteristics.

Together, these studies reveal constraints on the generalizability of previous findings, including for findings that suggest that karma encourages victim blaming and findings that show reminders of karma encourage generosity. The effect of karma on generosity was moderated by features of the recipient, such that karma only had a consistently positive effect on generosity toward those in financial need caused by external factors (or when the recipient of generosity is anonymous, as in prior studies of karmic generosity, for example, White, Kelly, et al., 2019; Willard et al., 2020). Karma did not increase generosity when misfortune was caused by a victim's salient own personal failings (as in prior studies of karma and victim blaming, for example, Cotterill et al., 2014; Taylor et al., 2022; White, Norenzayan, Schaller, 2019). These findings may arise from an underlying process of karma motivating generosity as a means to increase one's own karmic merit and therefore increase one's likelihood of good future outcomes. All types of generosity are not evaluated equally. Giving to those in greater need, especially those in need through no fault of their own, was expected to generate the greatest karmic merit.

To try and experimentally distinguish these competing elements of karma belief, Studies 1 and 3 attempted to manipulate whether participants were focused on how karma affects themselves or how karma has affected others. We expected that focusing on oneself may be especially effective at motivating prosocial responses (as a means to accrue merit for oneself), whereas focusing on others may motivate more judgmental, less benevolent responses (as fair punishment for their misdeeds). However, in the present studies, the effects of both karma manipulations were typically similar in magnitude and direction. Furthermore, the strong correlation between perception of karmic merit and generosity suggests that participants in both conditions were likely most motivated to give in situations perceived to gain them the best future outcomes. Victims of external misfortunes were viewed as the most meritorious and therefore received the most money. Future research may rely on stronger manipulations to further investigate possible differences between the effects of different elements of karmic belief (for oneself vs. others, prospective vs. retrospective).

Future research may also benefit from studying how karma affects victim blaming versus helping in other contexts, such as victims of sexual assault, natural disasters, congenital illnesses, and other misfortunes that were not captured in the present manipulations. One study provides

Table 7. Predicting Giving From Need, Deservingness, External Attributions, Merit, and Framing Condition. Interactions Indicate Whether Karma Framing Moderates the Relationship Between Predictors and Giving, Study 3. Framing Reference Group = Control Frame.

	All		India		Singapore		USA	
Predictors	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*	*b* [95% CI]	*p*
Intercept	49.26 [47.26, 51.26]	<.001	49.33 [46.93, 51.73]	<.001	34.85 [32.86, 36.83]	<.001	33.04 [31.24, 34.85]	<.001
Need	5.26 [4.85, 5.66]	<.001	4.78 [3.98, 5.57]	<.001	5.98 [5.28, 6.68]	<.001	4.94 [4.32, 5.56]	<.001
Karma frame [Others]	0.74 [−0.24, 1.72]	.138	0.75 [−0.94, 2.43]	.386	−0.06 [−1.76, 1.64]	.945	1.42 [−0.22, 3.06]	.09
Karma frame [Self]	1.35 [0.39, 2.32]	.006	1.05 [−0.70, 2.80]	.239	1.14 [−0.50, 2.79]	.173	1.83 [0.24, 3.41]	.024
Deservingness	2.43 [1.96, 2.90]	<.001	2.91 [2.05, 3.77]	<.001	2.17 [1.34, 3.00]	<.001	2.21 [1.45, 2.96]	<.001
External attribution	2.56 [2.12, 3.00]	<.001	1.91 [0.99, 2.82]	<.001	3.57 [2.82, 4.31]	<.001	2.07 [1.42, 2.73]	<.001
Merit	4.6 [3.95, 5.26]	<.001	3.92 [2.80, 5.04]	<.001	4.39 [3.20, 5.59]	<.001	5.33 [4.26, 6.40]	<.001
Need × Karma frame [Others]	−1.4 [−2.16, −0.64]	<.001	−1.1 [−2.58, 0.38]	.146	−2.16 [−3.51, −0.82]	.002	−0.88 [−2.02, 0.27]	.134
Need × Karma frame [Self]	−1.55 [−2.29, −0.80]	<.001	−1.96 [−3.43, −0.48]	.009	−1.46 [−2.75, −0.16]	.027	−1.39 [−2.52, −0.26]	.016
Karma frame [Others] × Deservingness	0.12 [−0.77, 1.00]	.79	−0.49 [−2.09, 1.11]	.549	0.25 [−1.35, 1.85]	.758	0.32 [−1.08, 1.73]	.654
Karma frame [Self] × Deservingness	0.95 [0.07, 1.82]	.034	0.93 [−0.66, 2.52]	.253	0.94 [−0.59, 2.46]	.23	0.63 [−0.79, 2.06]	.382
Karma frame [Others] × Attribution	1.71 [0.91, 2.52]	<.001	2.34 [0.77, 3.92]	.004	1.63 [0.24, 3.01]	.021	1.36 [0.11, 2.61]	.033
Karma frame [Self] × External attribution	1.02 [0.23, 1.81]	.012	0.81 [−0.82, 2.45]	.33	0.92 [−0.41, 2.26]	.176	1.44 [0.25, 2.63]	.017
Karma frame [Others] × Merit	−0.81 [−1.91, 0.30]	.152	−0.58 [−2.47, 1.32]	.55	1.26 [−0.80, 3.32]	.23	−2.47 [−4.23, −0.70]	.006
Karma frame [Self] × Merit	1.17 [0.04, 2.31]	.043	0.87 [−1.17, 2.90]	.404	2.38 [0.40, 4.37]	.019	0.39 [−1.45, 2.22]	.681
Country [Singapore]	−14.67 [−17.47, −11.87]	<.001						
Country [USA]	−15.92 [−18.80, −13.05]	<.001						

preliminary evidence that thinking about karma encourages derogation and distancing from ostensibly innocent victims of assaults and accidents (White & Willard, 2024). But that study did not systematically vary information about the victim's past behavior, which is likely important to karmic judgments. Victim blaming may be most likely when past misdeeds are salient. If instead there is a salient external, uncontrollable reason for someone's misfortune (as in the present studies), karma believers may readily accept this explanation and not blame the victim.

Future studies could also more systematically manipulate the severity of the target's need and attributions for need, to test whether these circumstances moderate the likelihood of a victim helping versus blaming response. Overall, the current effects of manipulating karma salience were quite modest in size, meaning that future studies should employ large sample sizes and powerful manipulations in order to effectively study these beliefs.

We found that our key results were often consistent across participants from India, Singapore, and the United States: In all three countries, perceptions of need and attributions predicted generosity, and the effect of karma on generosity varied depending on the recipient's deservingness. These patterns indicate consistency in the core logic of karmic causality, which emphasizes internal attributions for success and failure (both retrospectively and prospectively). Interestingly, this internal karmic causality was present both in cultures like the United States where dispositional attributions are quite common and in Asian cultures that are more likely to rely on situational attributions (e.g., Choi & Nisbett, 1998; Miller, 1984).

These studies also imply that momentary activations of supernatural concepts may have different effects compared to chronic, stable supernatural worldviews. Study 1 found positive correlations between participants' level of karma belief and various inequality-justifying belief systems, but there were minimal effects of karma framing on these attitudes, which may be due to both sets of measures reflecting relatively stable individual differences in attitudes about the world. However, it was momentary karma framing that predicted increased generosity across studies, which may indicate that decisions about giving money are more susceptible to contextual factors. The karma framing effect was unexpectedly similar for both believers and non-believers (in contrast with prior literature that typically finds more reliable religious priming effects for believers, for example, Shariff et al., 2016; White, Kelly, et al., 2019). This may indicate that reminders of karma are activating ideas that are also compelling to non-believers and relevant across many countries (e.g., concerns about fairness and reciprocity). Karma may also not elicit the same push-back that comes when activating beliefs about God in avowed atheists, as atheists may either not associate God with morality or may not feel compelled to change their behavior when reminded of the association (see Pasek et al., 2023). Future studies should continue to investigate both explicit beliefs and momentary reminders of karma, to provide evidence of when each variable is more relevant.

Future work into the history, rhetoric, and practice of karmic narratives may reveal that important cultural differences in how the concept of karma shapes social behavior in everyday life. For example, in India, karma beliefs may be utilized to justify caste-based inequalities that maintain the privilege of certain elites and discourages policies that could redistribute wealth and privilege (Cotterill et al., 2014). In other cultures, karma beliefs may instead be more frequently used to encourage charitable giving to the poor and to religious institutions, such as the practice of merit-making by giving to Buddhist monks. Future research is necessary to provide a richer understanding of how karmic beliefs are adapted to people local social contexts and personal concerns. For example, future investigations of how karma impacts evaluations of good fortune, in addition to misfortune, could provide valuable insight into whether karma beliefs give legitimacy to success, wealth, and status, and thus stabilize social inequalities. Our studies provide preliminary evidence of how karmic beliefs reflect and reinforce patterns of attributions and generosity in India, Singapore, and the United States, and show how the interaction between supernatural and secular meaning-making systems can shape prosociality. But more detailed work is needed to understand how chronic beliefs, momentary reminders of karma, and cultural networks of values interact to produce prosocial and antisocial behavior.

Conclusion

Across three studies, we found evidence that karma does not uniformly encourage victim blaming or victim helping. Rather, thinking about karma leads believers to consider the reasons why someone may need money and thereby recruits a variety of mundane socio-cognitive processes that have been well documented by social psychologists. Reminders of karma also somewhat shift the emphasis placed on these factors: Need is slightly less predictive of giving and attributions more predictive of giving when participants were actively thinking about karma. Karmic beliefs do not override secular patterns of attributions. Karmic motives rather rely on them to decide which course of action is most virtuous and likely to garner the most karmic rewards. Karma may be especially effective at encouraging prosociality that is selectively directed toward those perceived as most deserving of help and rewards. As such, karma belief remains compatible with cultural narratives that it is appropriate and justified for some people to be poor, low status, and suffer misfortune and hardship throughout their life.

The cultural evolution of karmic beliefs has likely been driven by both this compatibility between more naturalistic modes of decision making and by the subsequent effects on social behavior. Together, these influences could have led karma-like beliefs to become widespread in many cultures.

In believers' daily lives, different aspects could be emphasized to justify a variety of motivations. Believers may sometime be driven by a selfish desire to withhold resources and feel pleased about one's own good fortune, and at other times by other-benefiting norms about generosity, or societal narratives about the justifiability of unequal outcomes. The dual nature of karma—as something that can motivate generosity and also justify withholding it—may be part of the reason for its continued success among individuals and religious movements around the world.

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Data Availability Statement

Prior to conducting this study, the sampling strategy, methods, and planned analyses were preregistered on the Open Science Framework (Study 1: https://osf.io/kbqr5/?view_only=9c4e05a7456847dfa35c6411630345d1; Study 2: https://osf.io/fxqgv/?view_only=06c177a4d0b149a185be00ec4e7314f9; Study 3: https://osf.io/xa9zy/?view_only=e63da9b28ba84b68be553db51b7436e1). Full details of all measures and manipulations, and the data and analysis scripts from all studies, can be accessed at https://osf.io/rjcsz/?view_only=253772ec166b4ad2a9bc5bc0699ab2e7.

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Supplemental Material

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