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The Role of Karmic Beliefs in Immanent Justice Reasoning

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In press, *Psychology of Religion and Spirituality* (accepted 14/05/20)

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Abstract

Karmic belief—the expectation that actions bring about morally congruent outcomes within and across lifetimes—is central to many, particularly Eastern, religions. This research ($N=704$) examined whether karmic beliefs and cultural context (predominantly Christian Americans and Hindu Indians) moderated the indirect effect of learning about others' morally congruent or incongruent negative outcomes on immanent justice reasoning (causally attributing misfortune to someone's prior misdeeds) through perceived deservingness. Results revealed that the indirect effect of congruency on immanent justice attributions via deservingness was stronger for people higher in karmic beliefs, because they strengthened the effect of congruency on immanent justice attributions and the relationship between deservingness and immanent justice attributions. The indirect effect of congruency on immanent justice attributions through deservingness was also stronger in the USA. These results highlight the role that karmic beliefs play in how people reason about the causes of others' fortunes and misfortunes.

Keywords: karma; deservingness; immanent justice reasoning; moderated mediation; culture

The Role of Karmic Beliefs in Immanent Justice Reasoning

Immanent justice reasoning involves causally attributing a negative outcome to someone's prior immoral actions, such as inferring that a tsunami was caused by the apparent selfishness of the people living in its path (McCurry, 2011). Research suggests that perceived deservingness of a given outcome (which follows the subjective perception of an appropriate relation between the value of a person's actions and the value of their outcomes and does not imply a causal interpretation) underpins immanent justice attributions (Callan et al., 2014; Lerner, 1980). For example, Harvey and Callan (2014) found that participants attributed a man's freak accident to his prior moral failings because they believed he deserved the accident.

Although there has been extensive research into immanent justice reasoning (Callan et al., 2014), this has been overly reliant on Western samples and, relatedly, has paid little attention to the role of Eastern religiosity in explanations for events that, *prima facie*, reflect more supernatural than scientific thinking. Addressing this gap, White et al. (2019) examined whether karmic belief—that actions bring about morally congruent outcomes within and across lifetimes—moderates the effect of moral congruency of others' actions and outcomes on immanent justice attributions for events. They found that karmic belief, which is central to many Asian religious traditions (e.g., Suchday et al., 2018), positively predicted immanent justice attributions for negative outcomes more strongly when they befell immoral than moral targets.

By bridging research showing that perceived deservingness underlies immanent justice reasoning and White et al.'s (2019) cross-cultural work on karmic beliefs, we examined whether the indirect effect of moral congruency on immanent justice attributions through deservingness is moderated by cultural context and karmic beliefs (see Figure 1). Participants from the USA and India self-reported their karmic beliefs and provided ratings of

deservingness and immanent justice attributions for scenarios that varied in terms of whether a transgressor subsequently received a random negative or positive outcome. Because people from cultures where karma is central to religion (e.g., Hinduism in India) are more likely to acknowledge the influence of karmic forces, we explored whether the indirect effect of moral congruency on immanent justice attributions through perceived deservingness is stronger among Indian than US participants (i.e., because cultural context moderates paths a and/or b in Figure 1). We also hypothesized that the indirect effect of moral congruency on immanent justice attributions through deservingness would be moderated by karmic beliefs, largely because such beliefs, involving supernaturally-enforced justice (White et al., 2019), should augment the positive relationship between perceived deservingness and immanent justice attributions (i.e., because karmic beliefs moderate, in particular, path b in Figure 1; cf. Callan et al., 2014).

Method

Participants, Materials, & Procedure

We recruited 704 adults from India and the USA through Amazon's Mechanical Turk ($N_s = 368$ and 336 , respectively; see Supplementary Table S1 for sample characteristics and exclusions).¹ This work was approved by the University of X's Psychology Research Ethics Committee (approvals 18-046 and 19-025)

Karmic Beliefs. We used White et al.'s (2019) cross-culturally validated 16-item Belief in Karma questionnaire. Participants reported their agreement with statements (e.g., "When people are met with misfortune, they have brought it upon themselves by previous behavior in their life"; "Karma is a force that influences the events that happen in other people's

¹ The India (vs. USA) sample was younger on average and included proportionally more males (see Table S1). However, analyses controlling for gender and age yielded the same conclusions.

lives”) using a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. The measure showed good internal consistency ($\alpha = .94$).

Scenarios. Following Callan et al. (in press), participants responded to 8 scenarios describing someone engaging in an immoral behavior (e.g., “Frank raped a co-worker”) and experiencing either a bad (e.g., “Frank was in a freak car accident”) or good (e.g., “Frank won a luxury cruise trip”) outcome. For each participant, 4 scenarios involved a morally congruent (bad) outcome for the target and 4 involved a morally incongruent (good) outcome. Thus, each participant responded, one at a time, to 8 scenarios in total, each describing someone engaging in an immoral action and experiencing either a good or bad outcome.

Participants were randomly assigned 1 of 8 different sets of scenarios. The 8 immoral behaviors were the same across sets; the differences between the sets were that the 8 outcomes were cycled through the sets such that each outcome was paired with each behavior statement once across the sets (see supplementary materials). The order of scenario presentation was randomized across participants. The names of the targets were congruent with the cultural context (e.g., Frank vs. Ravi). All the scenarios and questionnaires were presented in English.

Procedure. For each scenario, participants first rated the extent to which they believed the target deserved the outcome (e.g., “To what extent do you believe that Frank deserved to be in a freak car accident?”), followed by rating their belief that the person’s immoral behavior caused the outcome (e.g., “To what extent do you believe that Frank's freak car accident was a result of him raping a co-worker?”; cf. Harvey & Callan, 2014; Harvey et al., 2017). Both ratings were assessed using a 7-point scale (1 = *not at all*, 7 = *a great deal*). Prior to the main block, participants completed a practice trial, and we included two attention/comprehension checks in the experiment (e.g., “This question is an attention check. Please select 'a great deal' for both statements below”) and a CAPTCHA as a final screening

item. Participants responded to the 8 scenarios and completed the Belief in Karma questionnaire in a randomized order, followed by demographic questions. Data are available at osf.io/m4yfv/.

Results

To account for potential cross-cultural response biases, karmic beliefs, perceived deservingness, and immanent justice attributions were standardized within culture prior to analyses (see Fischer, 2004).² Given the hierarchical structure of our data (i.e., we asked a sample of participants to respond to a sample of scenarios), analyses were performed using linear mixed effects modelling, which accounts for random effects of scenarios and participants (see Judd et al., 2012). We tested whether the indirect effect of moral congruency on immanent justice attributions through perceived deservingness varied as a function of the cultural context and karmic beliefs by conducting a moderated mediation analysis following the sequential steps approach advocated by Muller et al. (2005; see also Yzerbyt et al., 2018). Following this procedure, we fit three statistical models: Model 1 tested the overall effect of moral congruency on immanent justice attributions and whether it was moderated by karmic beliefs and/or cultural context (moderation of c-path, Figure 1). Model 2 tested whether the effect of moral congruency on perceived deservingness was moderated by karmic beliefs and/or cultural context (moderation of a-path, Figure 1). Model 3 tested whether the relationship between perceived deservingness and immanent justice attributions was moderated by karmic beliefs and/or cultural context (moderation of b-path, Figure 1) while controlling for the effect of moral congruency and its interactions with karmic beliefs and cultural context (moderation of c' path, Figure 1).

According to Muller et al. (2005; Yzerbyt et al., 2018), moderated mediation is evident when a moderator variable significantly moderates at least one path (path a or b, Figure 1) in

² Analyses using the raw scores yielded the same conclusions. See Supplementary Table S2 and Figure S2.

the causal process linking a predictor to an outcome via a mediator *and* when the remaining unmoderated path is statistically significant. In our case, to claim moderated mediation, karmic beliefs and/or cultural context must significantly moderate the effect of moral congruency on perceived deservingness (moderation of the a-path, Figure 1, tested in Model 2) *and* the partial effect of perceived deservingness on immanent justice attributions must be statistically significant (i.e., the b-path, Figure 1, tested in Model 3). Moderated mediation would also occur if karmic beliefs and/or cultural context significantly moderated the relationship between perceived deservingness and immanent justice attributions (moderation of the b-path, Figure 1, tested in Model 3) and the overall effect of moral congruency on perceived deservingness was statistically significant (i.e., the a-path, Figure 1, tested in Model 2).

For Model 1, immanent justice attributions were fit with a linear mixed effects model using the lme4 package (Bates et al., 2015, v. 1.1-21) in R (v. 3.6.0). The model included fixed effects for Congruency (congruent vs. incongruent, coded 0.5 and -0.5, respectively), Cultural Context (USA vs. India, weighted contrast coded +.523 and -.477, respectively, given different sample sizes between countries), Karmic Beliefs, and the Congruency X Cultural Context and Congruency X Karmic Belief interactions. We included random intercepts for participants and scenarios, and random slopes by participants for the effects of Congruency (random effects could covary).³ We used Satterthwaite approximations to calculate *p*-values using lmerTest (Kuznetsova et al., 2016, v. 3.1-0).

Analyses revealed a significant overall effect of Congruency on immanent justice attributions (c-path, Figure 1), which was moderated by both Cultural Context and Karmic Beliefs (Table 1 – Model 1). For the Congruency X Cultural Context interaction, simple

³ Random effects estimates for each of the three models we fit are shown in the supplementary materials (Table S2).

effects analyses by refitting the model using dummy coding revealed that the effect of Congruency on immanent justice attributions was larger in the USA, $b = 0.775$, $se = 0.050$, 95% CI = [0.677,0.872]; $t(549) = 15.59$, $p < .001$, than India, $b = 0.370$, $se = 0.048$, 95% CI = [0.277,0.464]; $t(519.40) = 7.75$, $p < .001$. Karmic Beliefs were more strongly associated with immanent justice attributions when the outcomes were congruent, $b = 0.567$, $se = 0.025$, 95% CI = [0.518,0.616]; $t(699.90) = 22.85$, $p < .001$, than incongruent, $b = 0.173$, $se = 0.030$, 95% CI = [0.113,0.232]; $t(700.84) = 5.67$, $p < .001$ (see Supplementary Figure S1).

For Model 2, we ran the same linear mixed effects model with deservingness ratings as criterion. Both Cultural Context and Karmic Beliefs moderated the path between congruency and perceived deservingness (i.e., the a-path in Figure 1; see Table 1 – Model 2). Simple effects analyses revealed that the effect of Congruency on deservingness was larger in the USA, $b = 1.327$, $se = 0.057$, 95% CI = [1.215,1.440]; $t(609.20) = 23.17$, $p < .001$, than India, $b = 0.398$, $se = 0.055$, 95% CI = [0.290,0.506]; $t(584.60) = 7.23$, $p < .001$ (Figure 2A). Karmic Beliefs were more strongly associated with deservingness when the outcomes were morally congruent, $b = 0.212$, $se = 0.025$, 95% CI = [0.164,0.260]; $t(699.54) = 8.63$, $p < .001$, than incongruent, $b = 0.088$, $se = 0.030$, 95% CI = [0.029,0.147]; $t(700.02) = 2.90$, $p = .004$ (Figure 2B).

For Model 3, we ran a linear mixed effects model that included Congruency, Cultural Context, Karmic Beliefs, Deservingness, and the Congruency X Cultural Context, Congruency X Karmic Beliefs, Deservingness X Cultural Context and Deservingness X Karmic Beliefs interactions as fixed effects predictors and immanent justice attributions as the criterion (this model additionally included random slopes by participants and scenarios for the associations with deservingness). As shown in Table 1 (Model 3), along with deservingness remaining a significant predictor of immanent justice attributions, Karmic Beliefs moderated the association between perceived deservingness and immanent justice

attributions (b-path in Figure 1), but cultural context did not (Figure 2C). The relationship between deservingness and immanent justice attributions was stronger at higher, $b = 0.441$, $se = 0.025$, 95% CI = [0.535,0.712]; $t(598) = 17.50$, $p < .001$, than lower, $b = 0.101$, $se = 0.024$, 95% CI = [0.392,0.491]; $t(560.90) = 4.19$, $p < .001$, Karmic Beliefs (Figure 2D). Tests of simple mediation for both moderators are presented in the supplementary materials (see Table S3).

In summary, the indirect effect of moral congruency on immanent justice attributions via perceived deservingness was moderated by both cultural context and karmic beliefs (i.e., was stronger for people higher in karmic beliefs and participants from the USA) because karmic beliefs and cultural context moderated the effect of congruency on perceived deservingness (moderation of a-path, Figure 1) and the path between deservingness and immanent justice attributions was statistically significant (b-path, Figure 1). The indirect effect of moral congruency on immanent justice attributions via perceived deservingness was further moderated by karmic beliefs because they moderated the relationship between deservingness and immanent justice attributions (moderation of b-path, Figure 1) and the overall effect of congruency on deservingness was statistically significant (a-path, Figure 1).

Discussion

Karmic beliefs center on the notion that actions bring about morally congruent outcomes within and across lifetimes, whereas immanent justice reasoning entails causally attributing a specific random outcome to someone's prior moral actions. The results we report here offer important new insights into the role that karmic beliefs play in immanent justice reasoning. White et al. (2019b) characterized karma as a source of supernatural *justice* but did not measure judgments of justice or deservingness in the context of participants' immanent justice attributions. We therefore extend their research by showing that the mediated effect of congruency on immanent justice attributions through perceived deservingness varied as a

function of karmic beliefs, because they (a) strengthened the effect of moral congruency on perceived deservingness and there was a partial effect of deservingness on immanent justice attributions, and (b) increased the positive relationship between deservingness and immanent justice attributions and there was an overall effect of congruency on deservingness.

Moderation of the relationship between deservingness and immanent justice reasoning by karmic belief observed in the current research resonates with research showing that other supernatural beliefs—specifically, general religiosity and magical ideation among Western participants (Callan et al., 2014)—augment immanent justice effects. Future research would benefit from exploring the degree to which karmic beliefs uniquely moderate the effect of moral congruency on immanent justice reasoning through deservingness over and above other individual differences in supernatural belief.

We also found that the mediated effect of congruency on immanent justice attributions through deservingness was robust across cultures but was stronger in the USA than India. One explanation for weaker effects in India is that the scenarios we used may have been more culturally specific to a Western context and therefore less relevant or recognizable to our Indian participants. Another potential explanation is that each scenario involved a target experiencing a deserved or undeserved outcome later *in this life*, but because of beliefs that supernatural justice can operate across multiple reincarnations, our Indian participants may have causally attributed the bad *and* good outcomes to moral actions in *past lives* regardless of the target's actions *in this life* (see White & Norenzayan, 2019). It is therefore important for future research to use scenarios more specific to given cultural or religious beliefs (e.g., where outcomes and moral actions are expected to cut across reincarnations) and to gauge respondents' reasons for their judgments (e.g., via thought listing). Notwithstanding these differences, our results provide evidence that karmic beliefs,

regardless of the specific cultural context we investigated, moderated the link between deservingness and immanent justice accounts of events.

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Table 1

Linear Mixed Effects Models for Testing Moderated Mediation of the Effect of Congruency on Immanent Justice Attributions through Perceived Deservingness by Culture and Karmic Beliefs.

Predictors	Model 1 (criterion IJ)		Model 2 (criterion Deservingness)		Model 3 (criterion IJ)	
	<i>b</i> (se)	<i>t</i> (df)	<i>b</i> (se)	<i>t</i> (df)	<i>b</i> (se)	<i>t</i> (df)
Congruency	0.563 (0.036)	15.43* (301.10)	0.841 (0.042)	20.20* (371.00)	0.278 (0.029)	9.73* (272.30)
Cultural Context	-0.000 (0.045)	-0.00 (700.81)	-0.000 (0.040)	-0.01 (700.77)	-0.032 (0.038)	-0.84 (644.44)
Karmic Beliefs	0.370 (0.027)	16.35* (700.70)	0.150 (0.020)	7.43* (700.64)	0.350 (0.019)	18.00* (658.04)
Congruency X Cultural Context	0.404 (0.065)	6.27* (700.28)	0.929 (0.075)	12.35* (698.87)	0.230 (0.054)	4.29* (584.22)
Congruency X Karmic Beliefs	0.394 (0.032)	12.23* (700.12)	0.124 (0.038)	3.31* (698.71)	0.142 (0.027)	5.25* (533.96)
Deservingness	--	--	--	--	0.271 (0.019)	14.43* (522.84)
Deservingness X Culture	--	--	--	--	-0.000 (0.036)	0.00 (725.01)
Deservingness X Karma Beliefs	--	--	--	--	0.170 (0.016)	10.60* (536.00)

Note. IJ = Immanent justice. The main effect estimates for cultural context are approximately zero because we standardized the outcomes within cultural contexts.

* $p < .001$.

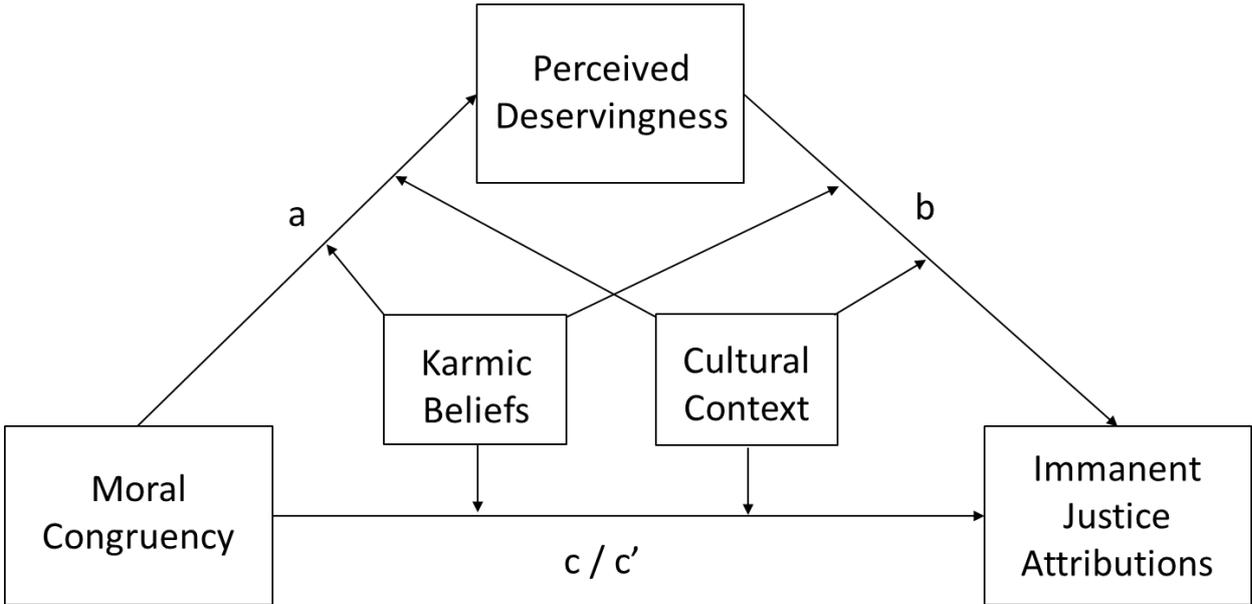


Figure 1. Conceptual model of first (a-path) and second (b-path) stage dual moderated mediation in which the indirect effect of moral congruency (bad vs. good outcome for a bad person; congruent vs. incongruent, respectively) on immanent justice attributions through perceived deservingness is moderated by karmic belief and cultural context (India vs. USA). The c (without deservingness) and c' (with deservingness) path denotes the overall and residual direct effects of moral congruency on immanent justice attributions, respectively, which were also specified to be moderated by karmic beliefs and cultural context in our moderated mediation analyses.

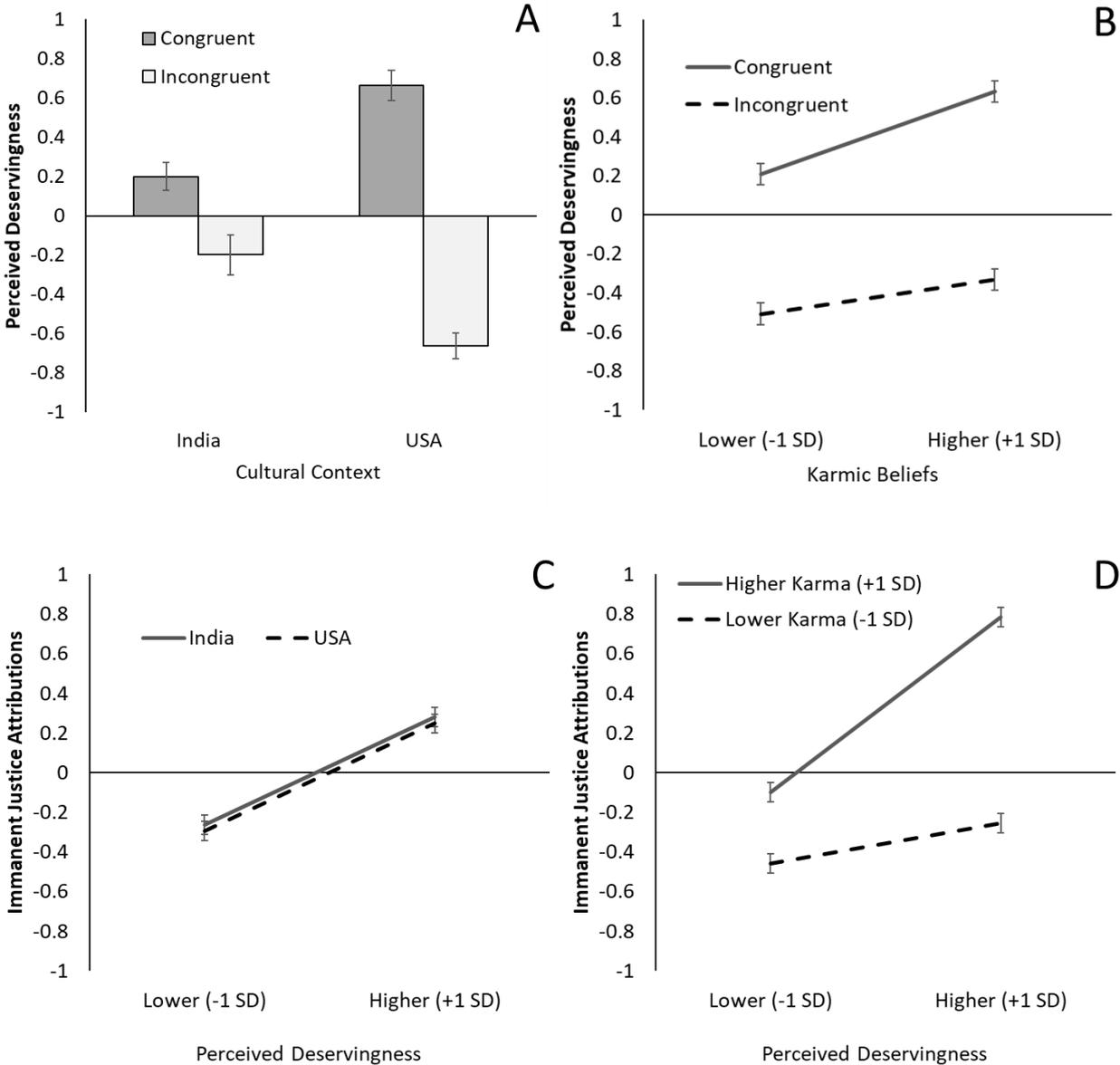


Figure 2. The effect of moral congruency on perceived deservingness as a function of cultural context (panel A) and karmic beliefs (panel B) and the relationship between perceived deservingness and immanent justice attributions as a function of cultural context (panel C) and karmic beliefs (panel D). Panels A and B correspond to tests of moderation of the a-path shown in Figure 1, whereas Panels C and D correspond to tests of moderation of the b-path shown in Figure 1. Error bars shown 95% confidence intervals.

ONLINE SUPPLEMENTARY MATERIALS

Table S1
Demographic Composition

	USA	India
<i>N</i>	336	368
Gender		
Female	50.3%	32.6%
Male	49.4%	67.4%
Non-binary	0.3%	0.0%
Age <i>M (SD)</i>	35.8 (11.5)	29.9 (9.9)
Ethnicity		
Caucasian	72.0%	0.5%
Asian	8.0%	98.4%
Other	20.0%	1.1%
Religion		
Christian	50.9%	12.5%
Atheist / Non-religious	22.6%	0.5%
Hindu	0.6%	82.6%
Buddhist	1.2%	0.0%
Other	24.7%	4.3%
Karmic Belief <i>M (SD)</i>	2.74 (1.00)	3.81 (0.49)

Note. An additional 51 USA and 227 Indian participants were not included in analyses because they failed at least one of three attention check items (cf. White et al., 2019). There were proportionally more males in the India vs. USA sample, $\chi^2(1) = 23.05, p < .001$, and the Indian sample was on average younger than the USA sample, $t(665.68) = -7.16, p < .001$. However, analyses controlling for gender and age and their interaction terms with congruency, cultural context, karma, and deservingness (see Yzerbyt, Muller, & Judd, 2004) yielded nearly identical estimates as those shown across models in the main Table 2.

Immanent Justice Scenarios

Below are the scenarios used for ratings of deservingness and immanent justice attributions. Participants were randomly assigned to one of the 8 sets of 8 scenarios below. Target names were matched by cultural context (Indian names are presented in brackets).

	(sentence started with same name during the task)	Condition
Set 1		
Frank [Ravi] raped a co-worker	was in a freak car accident	congruent
Joe [Prasad] robbed a store at gunpoint	apartment was destroyed by fire	congruent
Neil [Ramesh] assaulted a child	contracted a serious illness	congruent
John [Srinivas] drowned a puppy	was seriously injured by a falling tree	congruent
Ben [Raghu] punched an elderly woman	won the lottery	incongruent
Tim [Suresh] kidnapped a child	received a major pay-rise at work	incongruent
Jeff [Sudhakar] beat his wife	won a luxury cruise trip	incongruent
Mark [Pradeep] deliberately poisoned his neighbor	received a massive inheritance	incongruent
Set 2		
Frank [Ravi] raped a co-worker	received a massive inheritance	incongruent
Joe [Prasad] robbed a store at gunpoint	was in a freak car accident	congruent
Neil [Ramesh] assaulted a child	apartment was destroyed by fire	congruent
John [Srinivas] drowned a puppy	contracted a serious illness	congruent
Ben [Raghu] punched an elderly woman	was seriously injured by a falling tree	congruent
Tim [Suresh] kidnapped a child	won the lottery	incongruent
Jeff [Sudhakar] beat his wife	received a major pay-rise at work	incongruent
Mark [Pradeep] deliberately poisoned his neighbor	won a luxury cruise trip	incongruent
Set 3		
Frank [Ravi] raped a co-worker	won a luxury cruise trip	incongruent
Joe [Prasad] robbed a store at gunpoint	received a massive inheritance	incongruent
Neil [Ramesh] assaulted a child	was in a freak car accident	congruent
John [Srinivas] drowned a puppy	apartment was destroyed by fire	congruent
Ben [Raghu] punched an elderly woman	contracted a serious illness	congruent
Tim [Suresh] kidnapped a child	was seriously injured by a falling tree	congruent
Jeff [Sudhakar] beat his wife	won the lottery	incongruent
Mark [Pradeep] deliberately poisoned his neighbor	received a major pay-rise at work	incongruent
Set 4		
Frank [Ravi] raped a co-worker	received a major pay-rise at work	incongruent
Joe [Prasad] robbed a store at gunpoint	won a luxury cruise trip	incongruent

Neil [Ramesh] assaulted a child	received a massive inheritance	incongruent
John [Srinivas] drowned a puppy	was in a freak car accident	congruent
Ben [Raghu] punched an elderly woman	apartment was destroyed by fire	congruent
Tim [Suresh] kidnapped a child	contracted a serious illness	congruent
Jeff [Sudhakar] beat his wife	was seriously injured by a falling tree	congruent
Mark [Pradeep] deliberately poisoned his neighbor	won the lottery	incongruent

Set 5

Frank [Ravi] raped a co-worker	won the lottery	incongruent
Joe [Prasad] robbed a store at gunpoint	received a major pay-rise at work	incongruent
Neil [Ramesh] assaulted a child	won a luxury cruise trip	incongruent
John [Srinivas] drowned a puppy	received a massive inheritance	incongruent
Ben [Raghu] punched an elderly woman	was in a freak car accident	congruent
Tim [Suresh] kidnapped a child	apartment was destroyed by fire	congruent
Jeff [Sudhakar] beat his wife	contracted a serious illness	congruent
Mark [Pradeep] deliberately poisoned his neighbor	was seriously injured by a falling tree	congruent

Set 6

Frank [Ravi] raped a co-worker	was seriously injured by a falling tree	congruent
Joe [Prasad] robbed a store at gunpoint	won the lottery	incongruent
Neil [Ramesh] assaulted a child	received a major pay-rise at work	incongruent
John [Srinivas] drowned a puppy	won a luxury cruise trip	incongruent
Ben [Raghu] punched an elderly woman	received a massive inheritance	incongruent
Tim [Suresh] kidnapped a child	was in a freak car accident	congruent
Jeff [Sudhakar] beat his wife	apartment was destroyed by fire	congruent
Mark [Pradeep] deliberately poisoned his neighbor	contracted a serious illness	congruent

Set 7

Frank [Ravi] raped a co-worker	contracted a serious illness	congruent
Joe [Prasad] robbed a store at gunpoint	was seriously injured by a falling tree	congruent
Neil [Ramesh] assaulted a child	won the lottery	incongruent
John [Srinivas] drowned a puppy	received a major pay-rise at work	incongruent
Ben [Raghu] punched an elderly woman	won a luxury cruise trip	incongruent
Tim [Suresh] kidnapped a child	received a massive inheritance	incongruent
Jeff [Sudhakar] beat his wife	was in a freak car accident	congruent
Mark [Pradeep] deliberately poisoned his neighbor	apartment was destroyed by fire	congruent

Set 8

Frank [Ravi] raped a co-worker	apartment was destroyed by fire	congruent
Joe [Prasad] robbed a store at gunpoint	contracted a serious illness	congruent
Neil [Ramesh] assaulted a child	was seriously injured by a falling tree	congruent
John [Srinivas] drowned a puppy	won the lottery	incongruent
Ben [Raghu] punched an elderly woman	received a major pay-rise at work	incongruent
Tim [Suresh] kidnapped a child	won a luxury cruise trip	incongruent
Jeff [Sudhakar] beat his wife	received a massive inheritance	incongruent
Mark [Pradeep] deliberately poisoned his neighbor	was in a freak car accident	congruent

Table S2*Random Effects Estimates for the Linear Mixed Effects Models Reported in Main Table 1*

Random Effects	Model 1 (criterion IJ)		Model 2 (criterion Deserve)		Model 3 (criterion IJ)	
	Variance	<i>SD</i>	Variance	<i>SD</i>	Variance	<i>SD</i>
Participant						
Intercept	0.328	0.573	0.253	0.503	0.212	0.460
Congruency	0.604	0.777	0.858	0.926	0.236	0.485
Deserving	--	--	--	--	0.102	0.319
Cov _{Intercept.Congruency}	-.110	-.250	-0.111	-0.237	-0.020	-0.088
Cov _{Intercept.Deserve}	--	--	--	--	0.025	0.17
Cov _{Congruency.Deserve}	--	--	--	--	-0.004	-0.023
Scenario						
Intercept	0.005	0.068	0.005	0.072	0.002	0.044
Deserving	--	--	--	--	0.002	0.044
Cov _{Intercept.Deserve}	--	--	--	--	0.001	0.342
Residual	0.253	0.503	0.273	0.522	0.201	0.449

Note. IJ = Immanent justice. Cov = covariance.

* $p < .001$.

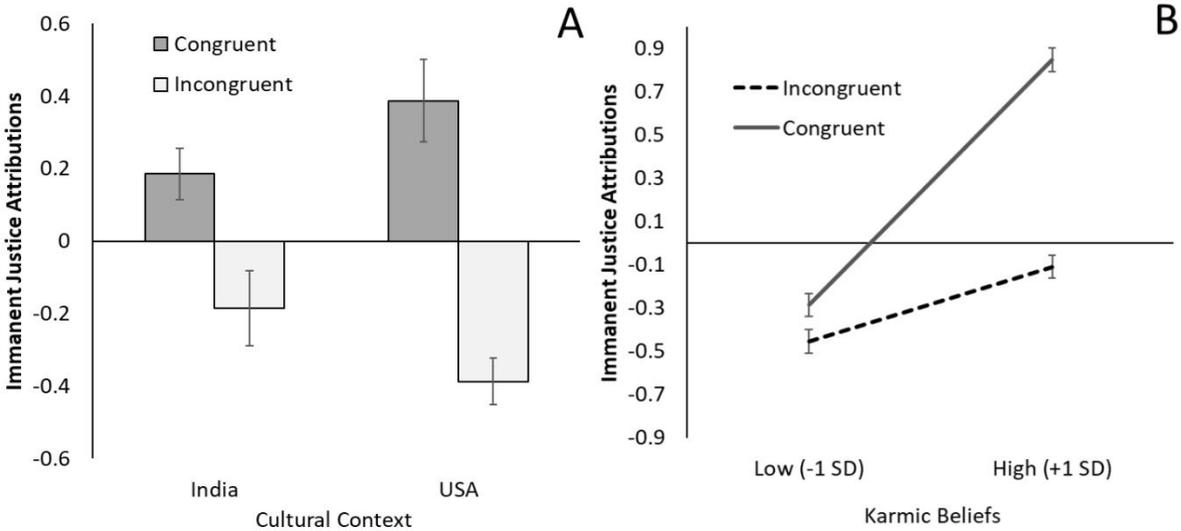


Figure S1. The effects of moral congruency on immanent justice attributions as a function of cultural context (panel A) and karmic beliefs (Panel B) from Model 1 in the main text (see main Table 1). Error bars show 95% confidence intervals.

Table S3

Linear Mixed Effects Models for Testing Moderated Mediation of the Effect of Congruency on Immanent Justice Attributions through Perceived Deservingness by Cultural Context and Karmic Beliefs Using the Raw, Unstandardized Scores.

Predictors	Model 1 (criterion IJ)		Model 2 (criterion deservingness)		Model 3 (criterion IJ)	
	<i>b</i> (se)	<i>t</i> (df)	<i>b</i> (se)	<i>t</i> (df)	<i>b</i> (se)	<i>t</i> (df)
Congruency	1.071 (0.066)	16.31* (282.71)	1.83 (0.084)	21.81* (382.40)	0.550 (0.055)	10.01* (267.66)
Cultural Context	-1.643 (0.098)	-16.71* (700.69)	-1.088 (0.086)	-12.60* (700.64)	-1.276 (0.088)	-14.50* (639.88)
Karmic Beliefs	0.951 (0.052)	18.20* (700.27)	0.370 (0.046)	8.05* (700.74)	0.947 (0.047)	20.16* (646.91)
Congruency X Cultural Context	2.148 (0.140)	15.35* (700.27)	3.010 (0.183)	16.45* (699.21)	0.943 (0.135)	7.00* (545.76)
Congruency X Karmic Beliefs	1.133 (0.074)	15.23* (700.38)	0.426 (0.097)	4.38* (699.31)	0.441 (0.073)	6.06* (538.02)
Deservingness	--	--	--	--	0.287 (0.017)	17.36* (534.94)
Deservingness X Culture	--	--	--	--	0.090 (0.038)	2.35 ^a (718.39)
Deservingness X Karmic Beliefs	--	--	--	--	0.201 (0.019)	10.73* (611.87)

Note. Karmic Beliefs were grand mean centered prior to analysis across models and perceived deservingness was grand mean centered for Model 3. Coding for Congruency and Cultural Context was the same as those presented in the main text.

^a $p < .05$, * $p < .001$.

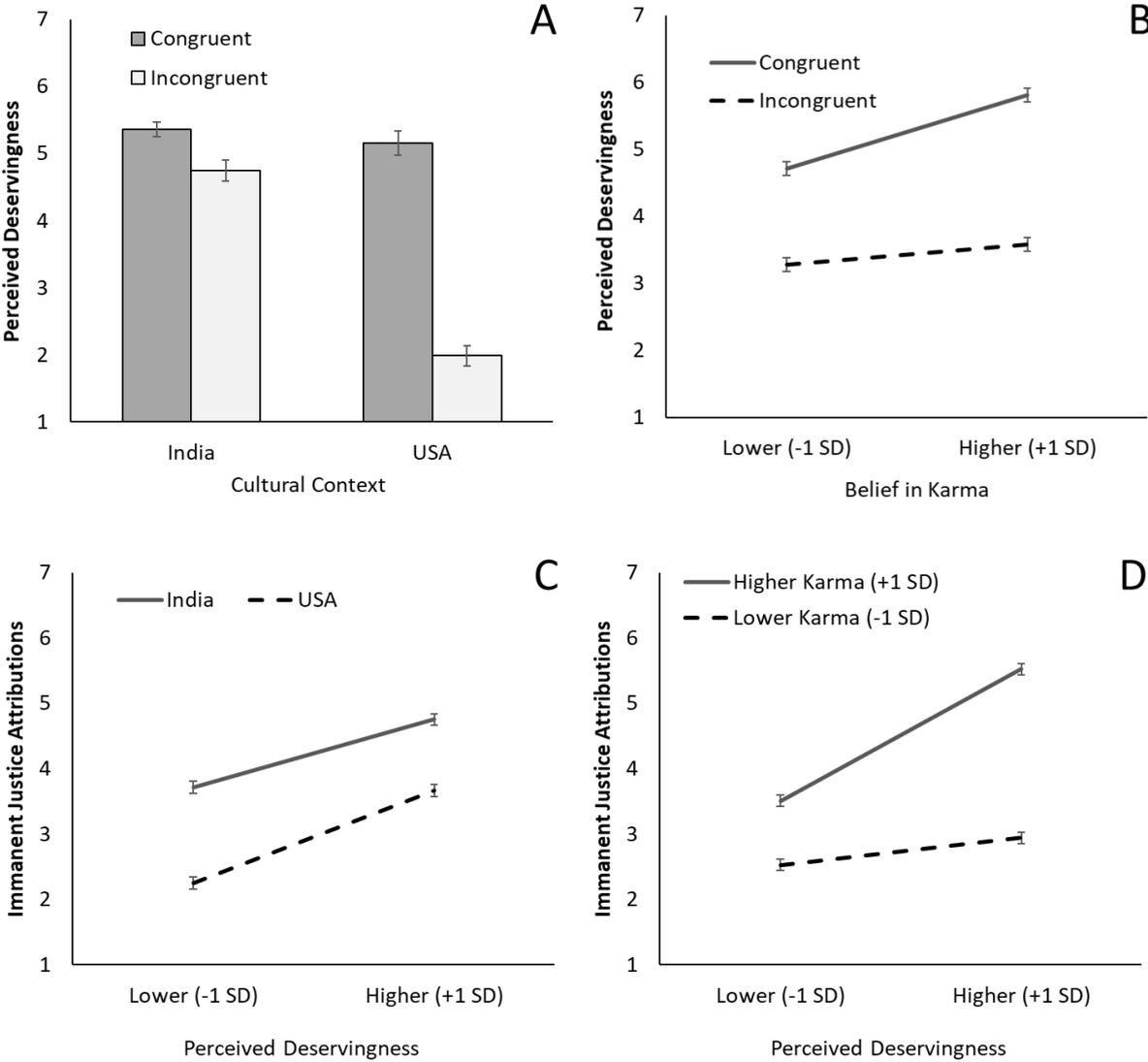


Figure S2. The effect of moral congruency on perceived deservingness (**unstandardized**) as a function of cultural context (panel A) and karmic belief (panel B) and the relationship between perceived deservingness and immanent justice attributions (**unstandardized**) as a function of cultural context (panel C) and karmic belief (panel D). Panels A and B correspond to tests of moderation of the a-path shown in the main Figure 1, whereas Panels C and D correspond to tests of moderation of the b-path. Error bars shown 95% confidence intervals.

Tests of Simple Mediation

Tests of simple mediation by refitting the models using dummy coding for cultural context and centring on ± 1 *SD* for karmic beliefs showed that the mediated effect of congruency on immanent justice attributions through deservingness was stronger in the USA context (at mean Karmic beliefs) and stronger at higher levels of Karmic beliefs (at the mean effect of cultural context; see Table S3 below). It is worth noting that mediation through deservingness was supported at all levels of the moderators we tested because the component paths (a and b) were always statistically significant (see Yzerbyt et al., 2018). There was also always a significant direct effect of congruency on immanent justice attributions (c'), suggesting partial mediation through deservingness in all cases.

Table S4.

Component Paths from Tests of Simple Mediation

Moderator	Congruency to Deserve (a path)		Deserve to IJ (b path)		Congruency to IJ Direct Effect (c' path)	
	<i>b</i> (se)	95% CI	<i>b</i> (se)	95% CI	<i>b</i> (se)	95% CI
Cultural Context						
USA	1.327* (0.057)	[1.215, 1.440]	0.271* (0.027)	[0.218, 0.324]	0.398* (0.045)	[0.312, 0.486]
India	0.398* (0.055)	[0.290, 0.501]	0.271* [0.025]	[0.222, 0.321]	0.168* (0.034)	[0.103, 0.234]
Karmic Beliefs						
Higher (+1 <i>SD</i>)	0.966* (0.056)	[0.856, 1.076]	0.441* (0.025)	[0.392, 0.491]	0.420* (0.041)	[0.340, 0.499]
Lower (-1 <i>SD</i>)	0.717* (0.056)	[0.607, 0.827]	0.101* (0.024)	[0.054, 0.149]	0.137* (0.038)	[0.062, 0.211]

Note. * $p < .001$.

Supplementary References

- Yzerbyt, V. Y., Muller, D., & Judd, C. M. (2004). Adjusting researchers' approach to adjustment: On the use of covariates when testing interactions. *Journal of Experimental Social Psychology*, 40(3), 424-431.