

A World of Blame to Go Around: Cross-Cultural Determinants of Responsibility and Punishment Judgments

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Abstract

Research finds collectivists make external attributions for others' behavior, whereas individualists make internal attributions. By focusing on external causes, collectivists should be less punitive toward those who harm others. Yet, many collectivistic cultures are known for strict retributive justice systems. How can collectivists simultaneously make external attributions and punish so harshly? We hypothesized that unlike individualists whose analytic tendencies engender a focus on mental states where judgments of accountability stem from perceptions of a harm-doer's agency, collectivists' holistic cognitive tendencies engender a focus on social harmony where judgments of accountability stem from perceived social consequences of the harmful act. Thus, what leads collectivists to make external attributions for behavior also leads to harsh punishment of those harming the collective welfare. Four cross-cultural studies found evidence that perceptions of a target's agency more strongly predicted responsibility and punishment judgments for individualists, whereas perceived severity of the harm was stronger for collectivists.

Keywords

moral responsibility, punishment, culture, collectivism, individualism

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People typically explain other's harmful behavior based either in terms of causes external to the individual (external explanations) or causes originating within the individual (internal explanations; Alicke, 1992; Malle, 1999). Cross-cultural research has consistently found that cultures differ in the extent to which they rely on either external or internal explanations. In particular, collectivists are more likely to rely on external explanations for harmful behavior than individualists because they tend to perceive holistic relationships and similarities among individuals, whereas individualists are more likely to provide internal explanations for harmful behavior than collectivists because they tend to focus on actors' mental states and individual agency (Morris & Peng, 1994).

This cultural difference in cognition suggests that collectivists should be less punitive toward those who cause harm than individualists because collectivists will turn to situational causes beyond the control of the transgressor when making judgments of responsibility and determining whether punishment is warranted. Indeed, a great deal of moral psychology literature reveals that dispositional factors of a harm-doer are central to judgments of responsibility and punishment because dispositional factors reveal whether the actor was the initial cause of the harm, whereas situational factors suggest that the actor's harmful behavior was caused

by other forces (Miller, 1984; Morris & Peng, 1994). However, many collectivistic cultures such as China, Thailand, and Vietnam are among the countries that most frequently issue the death penalty to criminals (*Death Penalty 2015: Facts and Figures*, 2016) and have some of the world's highest incarceration rates (Walmsley, 2016). Thus, although research clearly indicates that many East Asian cultures are collectivistic and prone to provide external explanations for a transgressor's behavior, it appears that many of these East Asian cultures are at least as punitive as many individualist cultures, and often more so. How, then, can these collectivists be simultaneously more likely to make external explanations for harmful actions and be so punitive to those who cause harm?

We believe the answer lies in the cultural differences in how people determine moral responsibility and punishment.

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Previous research indicates that both the perceived agency and the perceived severity of a harmful act are central to individuals' judgments of moral responsibility and punishment (Alicke, 2000; Malle, Guglielmo, & Monroe, 2014). Because of fundamental cross-cultural psychological differences in analytic and holistic cognition (Nisbett, Peng, Choi, & Norenzayan, 2001), we hypothesize that individualists base their judgments primarily on perceptions of the harm-doer's agency, whereas collectivists place much less emphasis on perceived agency, and instead, base their judgments mainly on the perceived severity of the harmful act. If correct, this would help explain why East Asian collectivists often make external explanations for harmful behavior but are still highly punitive; their holistic explanation style leads these collectivists to make external explanations for other's behavior, but it also leads to a focus on social harmony and collective welfare that results in these collectivists being highly punitive toward others who cause severe harm. As such, it becomes possible for collectivists to make external explanations for other's harmful behavior while still holding them highly accountable and worthy of punishment.

Cultural Differences in Determinants of Responsibility

Perceived Agency as a Determinant of Moral Responsibility

Research in Western European and North American cultures finds that people in these cultures largely emphasize individual mental states and individual agency when thinking about the world around them and explaining behavior, leading scholars to label such cultures *individualistic*. In contrast, cross-cultural research finds that East Asian and Latin American cultures tend to focus largely on the collective and interrelationships between individuals and objects, leading scholars to label such cultures *collectivistic* (Menon, Morris, Chiu, & Hong, 1999; Zemba, Young, & Morris, 2006). One of the most prominent features of individualistic cultures is the location of agency within the person. Individualists experience a heightened sense of choice that is free from social constraint in their day-to-day lives. Their collectivistic counterparts instead experience a heightened sense of social obligation and group agency. Collectivists perceive less personal agency (compared with individualists) because they tend to view individuals as part of a closely knit community (e.g., family, social group) that guides and provides expectations for behavior.

This cultural difference in personal agency perceptions helps explain cultural differences in how individuals make causal attributions. For instance, individualists are more likely to attribute causality to dispositions of individuals, whereas collectivists are more likely to attribute causality to forces external to the individual (Menon et al., 1999; Morris

& Peng, 1994). Research also shows that individualists ascribe more blame after more intentional acts and less blame after less intentional acts than do collectivists (Shteynberg, Gelfand, & Kim, 2009). As individualists are more likely than collectivists to perceive and value personal agency, then it follows that individualists would more likely attribute causes of harmful behavior to individual dispositions, discount the impact of contextual factors, and attend to the perceived agency of a harm-doer.

Perceived Consequences as a Determinant of Moral Responsibility

Another prominent cultural difference is that, compared with individualists, collectivists are more likely to perceive themselves as a part interdependently embedded within a larger whole and therefore are likely to perceive other objects, events, and people in this way (Cross, Hardin, & Gercek-Swing, 2011; Markus & Kitayama, 1991). Growing up in a social world characterized by role obligations, social intricacy, and cooperation (i.e., collectivistic culture) places attention outside of oneself and toward the social world (Markus & Kitayama, 1991). From this, collectivists are more likely to focus on and value social harmony and group cohesion, whereas individualists are more likely to value individual rights (Nisbett et al., 2001; Sullivan, Landau, Kay, & Rothschild, 2012; Sullivan et al., 2016).

Along these lines, determining appropriate or inappropriate behavior for collectivists may stem from how much a behavior is viewed to impact social harmony. Collectivists' morality is considered far more social than individualists' morality. Shweder, Much, Mahapatra, and Park (1997) argued that the various cultures around the world ground their morality to varying degrees in three ethics: autonomy, community, and divinity. The ethic of autonomy, which emphasizes how people should be free to live whatever life they wish, is the central ethic of those in Western individualistic societies. For these individualists, actions that impede others' freedom and liberty are immoral and deserve punishment. In contrast, the ethic of community, emphasizing how people are members of larger groups and entities that should be cherished and protected, and the ethic of divinity, emphasizing how people carry within them divine souls interconnecting them to all other souls, are both highly social in nature and are central to many East Asian collectivistic societies. For collectivists, behaviors that threaten or violate the sanctity of the collective are immoral and deserve punishment (see also Haidt, Koller, & Dias, 1993; Kwan, 2016). In line with this reasoning, recent research demonstrates that Chinese morality is primarily grounded in notions of civility and behaving in a socially appropriate manner (Buchtel et al., 2015) and that Chinese individuals tend to believe that the purpose of punishment is to preserve the greater good of society (Sullivan et al., 2016).

It follows, then, that for those growing up in an interconnected world that prioritizes social harmony and collective welfare (i.e., collectivistic cultures), when a harmful action occurs, judgments of moral accountability will depend primarily on how socially damaging the transgression was, based on how severe one perceives the consequences of the act to be (Durkheim, 1893; Nisbett et al., 2001; Sullivan et al., 2012). Conversely, if one grows up in a world characterized much less in terms of social harmony, but rather in terms of personal agency and individual uniqueness (i.e., individualistic culture), attention is likely to be directed primarily to individual choices and freedoms (Nisbett et al., 2001), and therefore, accountability and punishment judgments will have less to do with the perceived consequences of the act.

In sum, when collectivists evaluate a harmful act, they should be more likely than individualists to focus on the extent to which the act was negatively consequential (e.g. How much suffering occurred? What downstream consequences might this have for society? (cf. Maddux & Yuki, 2006). When individualists evaluate a harmful act, they will be more likely than collectivists to focus on the extent to which the actor had agency (e.g., Was it an accident or on purpose? Could it have been avoided?). We reason that these differences will lead collectivists to base responsibility and punishment judgments primarily on the perceived severity of the harmful act while leading individualists to base their judgments primarily on the perceived agency of the actor.

The Present Research

The above analysis provides an explanation as to how East Asian collectivistic cultures can be highly punitive while also perceiving human behavior as largely determined by contextual factors; East Asian collectivists' judgments of moral responsibility and punishment depend more on the consequences of the act than perceptions of the actor's agency. Because personal agency is not as important to their judgments but collective harmony is, they can commonly attribute a target's behavior to the situation (as past research suggests they often do), but still make harsh judgments about the target's responsibility and deserving of punishment.

In the present research, we collected data from Western individualists (Americans) and East Asian collectivists (Chinese) to explore the determinants of moral responsibility and punishment judgments cross-culturally. We focused on the United States and China because these two countries have shown reliable differences in individualism and collectivism, respectively (Oyserman, Coon, & Kemmelmeier, 2002), particularly in terms of their emphasis on social harmony. We predicted that for the Americans, the associations between perceived personal agency and judgments of responsibility and punishment would be stronger than for the Chinese. In addition, we examined the relationship between the perceived severity of harm and judgments of responsibility and punishment, hypothesizing that this relationship

would be stronger for the Chinese than for the Americans—an effect due to the Chinese relying on the perceived severity of the harm as indicative of how much social harmony had been disrupted. Finally, we hypothesized that within cultures the Americans would place significantly greater emphasis on personal agency than on consequences, whereas the Chinese would place significantly greater emphasis on perceived severity of harm than on personal agency.

In Study 1, participants read a series of vignettes of actors involved in harmful outcomes and identified the extent to which they perceived the actor as having acted with agency, as well as the extent to which they held the actor responsible for the outcome and deserving of punishment. In Study 2, we used a similar methodology while also including a measure of harm perceptions to test our claims that Chinese participants (relative to American participants) place more importance on the severity of harm when making their judgments about responsibility and punishment. In Study 3, to establish causation and explore the nuances by which individuals from both cultures make their accountability judgments, we manipulated the extent to which vignette targets acted with agency as well as the extent to which their actions caused severe harm. Finally, in Study 4, we tested our hypothesis that for Chinese, the perceived severity of the harmful act serves as an indicator of how much social harmony has been disrupted, which in turn serves as a basis for how much responsibility and punishment they wish to mete out.

Study 1

In Study 1, we explored the relationship between perceptions of a harm-doer's agency and the extent to which participants hold that actor to be responsible and worthy of punishment. We presented participants in both the United States and China a series of vignettes where a target engages in a behavior that results in harm to others. Then, we gauged how much participants believed the harm-doer acted with agency, as well as how much they held the harm-doer responsible for what happened and how much they felt the harm-doer deserved to be punished. We expected that the relationship between perceived personal agency and holding the target accountable would be significantly stronger for the American participants than it would be for the Chinese participants. Even so, we expected that the Chinese participants would still hold the target to be at least as responsible and worthy of punishment, if not more so, than our American participants.

Method

Participants. There were a total of 188 participants. Ninety-six participants (46 males, 50 females) were from a large American university. The average age of these students was 22.48 ($SD = 2.66$). Ninety-two participants (50 males, 42 females) were from a large Chinese university. The average age of these participants was 21.54 ($SD = 2.10$). All

Table 1. Means, Standard Deviations, and Correlations for All Variables, Separated by Culture (Study 1).

	M (SD) Chinese sample	Responsibility	Punishment	Prison time	Agency	M (SD) American sample
Responsibility	6.17 (0.69)	—	.55*** [.39, .68]	.36*** [.17, .52]	.72*** [.61, .80]	5.82 (0.82)
Punishment	6.36 (0.69)	.26** [.06, .44]	—	.36*** [.17, .52]	.38*** [.20, .54]	5.56 (1.03)
Prison Time	27.59 (24.30)	-.01 [-.21, .20]	.10 [-.11, .30]	—	.26* [.06, .44]	14.96 (28.91)
Agency	4.64 (1.01)	.32** [.12, .49]	.09 [-.12, .29]	-.07 [-.27, .14]	—	5.41 (0.96)

Note. Values for Americans ($n = 96$) are above the diagonal and values for Chinese ($n = 92$) are below the diagonal. Numbers in brackets represent the 95% confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

participants received course credit for their participation. The sample size represents the total number of participants we managed to recruit during a single semester. That said, we estimated based on our theorizing that the correlation between perceived agency and accountability judgments for Americans would tend to be large ($r > .50$), whereas the same correlation for the Chinese would tend to be small ($r < .25$), and thus determined that, at .80 power, we would need approximately 60 participants per cultural group to find a significant difference between cultures.

Procedure. After completing a short demographic questionnaire, participants read six different vignettes. Each described a target individual's behavior that ultimately led to harmful consequences to others (see Online Appendix for vignette text). Following each vignette, participants responded to four items. One item gauged how much participants agreed or disagreed with the statement "[This person] is responsible for what happened." Participants responded to this item using a 7-point Likert response scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The next item asked "How severely should [this person] be punished?" which participants answered using a 7-point scale ranging from 1 (*not at all punished*) to 7 (*severely punished*). A third item asked "How many months/years would you suggest [this person] spend in prison (if any)?" and participants responded by typing in their suggestion. Responses to this item were then recalculated to be in months, and as responses for this item were skewed positively, we transformed them by taking the natural log.¹ Finally, participants indicated how much they agreed or disagreed with the statement "[This person] acted with free will," responding on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*), which we used to measure lay notions of how much personal agency participants perceived the target to have.² The reliabilities across vignettes for each of the items were moderate-to-high (Americans: $\alpha_{\text{responsible}} = .73$; $\alpha_{\text{punishment}} = .77$; $\alpha_{\text{prison_time}} = .85$; $\alpha_{\text{personal_agency}} = .73$; Chinese: $\alpha_{\text{responsible}} = .80$; $\alpha_{\text{punishment}} = .61$; $\alpha_{\text{prison_time}} = .79$; $\alpha_{\text{personal_agency}} = .72$), so we collapsed across the vignettes to form an overall score for each item for each participant.

Translation. The vignettes and all items were first written in English and then translated into Chinese by a bilingual speaker. Then, a second bilingual speaker who had not seen the English version of the vignettes or items back-translated the Chinese version into English. Native English speakers then compared the original English version and the back-translated English version and confirmed that the vignettes and items were identical in meaning.³

Results and Discussion

Means, standard deviations, and correlations for all variables, separated by culture, are presented in Table 1. We conducted separate multiple regression analyses for responsibility, punishment, and prison-time judgments, entering culture (American = 0; Chinese = 1), personal agency perceptions (centered), and the interaction of the two as predictors. Table 2 presents the results of these analyses.

As shown, there was a significant effect of culture for each dependent variable, with the Chinese participants consistently scoring higher on responsibility, punishment, and prison-time judgments. Furthermore, there was a significant interaction between culture and perceived agency in predicting each of the judgment variables. In each case, the interaction was due to perceived personal agency being a stronger predictor for the American participants than it was for the Chinese participants. Moreover, for both punishment and prison time, the null simple slope results for the Chinese participants indicate that they did not base their judgments on perceived personal agency of the actor at all. Overall, then, these results strongly support our hypothesis that personal agency is a fundamental determinant of responsibility for Americans, but for those in China, personal agency does not play as fundamental a role (or as in the case of punishment and prison time, no role at all).

Study 2

In Study 1, we found that Chinese participants held the targets more accountable for the harm than did American

Table 2. Multiple Regression Results (Study 1).

	Responsibility			Punishment			Prison time		
	<i>b</i>	<i>SE</i>	CI	<i>b</i>	<i>SE</i>	CI	<i>b</i>	<i>SE</i>	CI
Culture	0.67***	0.10	[0.48, 0.86]	0.97***	0.13	[0.71, 1.23]	0.50***	0.08	[0.34, 0.67]
agency	0.42***	0.05	[0.33, 0.51]	0.24***	0.06	[0.11, 0.36]	0.06	0.04	[-0.01, 0.14]
Culture × Agency	-0.40***	0.09	[-0.58, -0.22]	-0.34**	0.12	[-0.59, -0.10]	-0.20*	0.08	[-0.34, -0.04]
Agency simple slopes: China	0.21***	0.06	[0.09, 0.34]	0.06	0.09	[-0.11, 0.23]	-0.03	0.05	[-0.13, 0.08]
Agency simple slopes: United States	0.61***	0.07	[0.48, 0.74]	0.40***	0.09	[0.23, 0.58]	0.17**	0.06	[0.05, 0.28]

Note. Americans ($n = 96$) coded as 0 and Chinese ($n = 92$) coded as 1. *b* = unstandardized regression weight; *SE* = standard error; CI = 95% confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

participants. Yet, we found that the American participants viewed the harm-doers as having acted with more personal agency than did the Chinese participants, and furthermore found that the relationship between perceptions of personal agency and accountability judgments was significantly stronger for the Americans than it was for the Chinese participants. Altogether, this suggests that the Chinese participants were relying on something besides perceptions of personal agency as the main basis of their judgments of responsibility and punishment. We hypothesized that this other determinant of responsibility is the perceived severity of the consequences of the targets' actions—the more severe the consequences are to the victim and society, the more Chinese individuals will hold the actor morally accountable. In contrast, for Americans, although perceived severity of the consequences may influence their judgments to some extent, it will have a much weaker impact than perceptions of the targets' agency. To test this hypothesis, in Study 2, we examined the influence of both perceptions of personal agency and the severity of consequences as determinants of responsibility and punishment judgments.

In addition, in Study 2, we used a new set of seven vignettes to help ensure the generalizability of our effects. Furthermore, unlike Study 1 which was initially designed by an American in English and then translated into Chinese, Study 2 was initially designed by a Chinese person in Chinese and subsequently translated into English. We chose this reverse method to address the possibility that the vignette topic, phrasing, or other cultural nuances may have caused the effects we found in Study 1. Also, in Study 2, we included a measure of participants' judgments of blame as a means for further understanding the cross-cultural impact of perceptions of an actors' agency and the severity of consequences of their actions on how individuals make judgments of others who have committed harmful transgressions.

Overall, we predicted there would be a significant Culture × Personal Agency interaction, such that the Americans would place greater weight on personal agency perceptions in determining responsibility and punishment than the Chinese participants. We also predicted a Culture × Consequences interaction, where the Chinese would rely

more on the perceived harmful consequences than would the Americans.

Method

Participants. A total of 257 participants took part for research credit in a psychology course. One hundred three participants (29 males, 74 females) were from a large American university. The average age of these students was 21.18 ($SD = 3.00$). One hundred fifty-four participants (62 males, 94 females) were from a large Chinese university. The average age of these participants was 20.03 ($SD = 1.94$). Our sample size selection was partially based on our findings from Study 1 which demonstrated that an n of at least 90 per culture easily provided enough statistical power to find a difference between the United States and China when it came to the effect of perceived personal agency. For the effect of perceived consequences, we determined, based on our theorizing, that the difference between the two cultures should be about as strong as it was for perceived agency. However, to be cautious, although we had reached the goal of 90 per cultural group in the middle of the semester, we decided to continue to collect data for this study until the end of the semester. Thus, the final sample sizes reflect the total number of participants we were able to recruit during the semester.

Procedure. The procedure mirrored that of Study 1. After a brief demographic questionnaire, participants read a series of short vignettes describing targets engaging in behaviors that inflicted harm upon others (see Online Appendix for text of each vignette). Following each vignette, participants responded to the following items that were first written in Chinese, translated into English, and then back-translated into Chinese. As with Study 1, participants indicated how responsible they held the targets for what happened and to what extent the targets should be punished for their actions. We also included an additional measure assessing how much participants indicated they blamed the targets for what happened ("How much blame does [target] deserve?") which we included to complement our existing measures of responsibility and punishment. Also, as in Study 1, we assessed how

Table 3. Means, Standard Deviations, and Correlations for All Variables, Separated by Culture (Study 2).

	M (SD) Chinese sample	Responsibility	Punishment	Blame	Agency	Consequences	M (SD) American sample
Responsibility	5.24 (0.71)	—	.51*** [.35, .64]	.65*** [.52, .75]	.59*** [.45, .70]	.05 [-.14, .24]	5.03 (0.82)
Punishment	3.84 (0.89)	.39*** [.25, .52]	—	.89*** [.85, .92]	.47*** [.31, .61]	-.04 [-.23, .15]	3.74 (0.84)
Blame	4.05 (0.91)	.42*** [.28, .54]	.85*** [.79, .90]	—	.52*** [.36, .65]	-.05 [-.24, .14]	4.00 (0.87)
Agency	3.95 (0.90)	.34*** [.19, .47]	.06 [-.10, .22]	.07 [-.09, .23]	—	.05 [-.14, .24]	4.29 (0.82)
Consequences	5.75 (0.59)	.44*** [.30, .56]	.35*** [.20, .48]	.42*** [.28, .54]	.21* [.05, .36]	—	5.82 (1.14)

Note. Values for Americans ($n = 103$) are above the diagonal and values for Chinese ($n = 154$) are below the diagonal. Numbers in brackets represent the 95% confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

much personal agency participants believed the targets had to act. Furthermore, to examine the hypothesis that Chinese participants rely more on the severity of the harm inflicted than on personal agency perceptions as a determinant of moral accountability, we included a measure of how severe participants viewed the consequences of the targets' actions to be ("How severe were the consequences of [target's] actions?"). Finally, we included an exploratory measure of how immoral participants viewed the target to be, but since this item was not directly related to accountability judgments, we include results relating to it in the Supplementary Materials. The reliabilities across vignettes for each of the items were moderate (American: $\alpha_{\text{responsible}} = .61$; $\alpha_{\text{punishment}} = .61$; $\alpha_{\text{blame}} = .61$; $\alpha_{\text{personal_agency}} = .77$; $\alpha_{\text{consequences}} = .61$; Chinese: $\alpha_{\text{responsible}} = .64$; $\alpha_{\text{punishment}} = .76$; $\alpha_{\text{blame}} = .75$; $\alpha_{\text{personal_agency}} = .65$; $\alpha_{\text{consequences}} = .69$), so we collapsed across the vignettes to form an overall score for each item for each participant.

Results and Discussion

Means, standard deviations, and correlations for all variables, separated by culture, are presented in Table 3. To test whether, as hypothesized, American participants place more emphasis on personal agency when making their judgments, whereas Chinese participants place more emphasis on the severity of the consequences when making their judgments, we conducted a series of multiple regression analyses entering culture (American = 0; Chinese = 1), personal agency perceptions (z-scored), and consequences perceptions (z-scored), and the hypothesized Culture \times Personal Agency and Culture \times Consequences interactions as predictors of each of our dependent variables. Since it was not pertinent for the present inquiry, for the sake of parsimony, we present the results of the full factorial model in Supplementary Materials. Table 4 presents the results for the main effects of culture, personal agency, and consequences, as well as the

hypothesized two-way interactions (Culture \times Personal Agency and Culture \times Consequences) along with the corresponding simple slope analyses.

In line with what we found in Study 1, there was a main effect of culture for responsibility judgments as well as trending effects of culture for punishment and blame judgments, indicating once again that the Chinese participants tended to hold the targets more accountable than the American participants. Most importantly, however, the Culture \times Personal Agency interaction was significant for each dependent variable, and simple slope analyses indicated that these interactions were due to American participants relying more heavily on personal agency than Chinese participants when making their judgments. In contrast, the significant Culture \times Consequences interactions indicate that the Chinese participants were relying more heavily on the perceived severity of the consequences of the targets' actions than the American participants. Thus, in line with our hypotheses, these results highlight how the two different cultures weigh the determinants of responsibility, punishment, and blame differently, with Americans placing more weight on perceptions of how much a target acted with agency and Chinese placing more weight on perceptions of how severe the consequences of the target's actions were.

Within-culture differences using RWA. Finally, we examined within each culture to explore whether perceptions of personal agency or consequences played a larger role in determining accountability judgments. Traditional multiple regression maximizes variance prediction of an outcome variable by assigning weights to predictors such that the sum of squares from error is minimized (Nunnally & Bernstein, 1994). However, multiple regression may fail to sort the relative importance of predictors, especially in the presence of multicollinearity (Johnson, 2000). In other words, multiple regression does an excellent job of identifying the best set of variables for maximizing the prediction of an outcome, but

Table 4. Multiple Regression Results (Study 2).

	Responsibility			Punishment			Blame		
	<i>b</i>	SE	CI	<i>b</i>	SE	CI	<i>b</i>	SE	CI
Culture	0.37***	0.08	[0.20, 0.53]	0.20 [†]	0.11	[-0.01, 0.41]	0.16	0.11	[-0.05, 0.37]
Agency	0.43***	0.06	[0.32, 0.54]	0.35***	0.07	[0.21, 0.49]	0.41***	0.07	[0.27, 0.54]
Culture × Agency	-0.23**	0.07	[-0.39, -0.07]	-0.37***	0.10	[-0.57, -0.17]	-0.42***	0.10	[-0.63, -0.22]
Agency simple slopes: China	0.21***	0.06	[0.09, 0.33]	-0.01	0.08	[-0.17, 0.15]	-0.02	0.08	[-0.18, 0.14]
Agency simple slopes: United States	0.43***	0.05	[0.33, 0.53]	0.35***	0.07	[0.21, 0.49]	0.41***	0.07	[0.27, 0.55]
Consequences	0.02	0.07	[-0.11, 0.15]	-0.05	0.08	[-0.22, 0.11]	-0.07	0.08	[-0.23, 0.09]
Culture × Consequences	0.25**	0.08	[0.09, 0.42]	0.36***	0.11	[0.15, 0.57]	0.45***	0.11	[0.24, 0.66]
Consequences simple slopes: China	0.27***	0.05	[0.17, 0.37]	0.31***	0.06	[0.19, 0.43]	0.38***	0.06	[0.26, 0.50]
Consequences simple slopes: United States	0.02	0.06	[-0.10, 0.14]	-0.05	0.08	[-0.21, 0.11]	-0.07	0.08	[-0.23, 0.09]

Note: Americans ($n = 103$) coded as 0 and Chinese ($n = 154$) coded as 1. b = unstandardized regression weight; SE = standard error; CI = 95% confidence interval.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5. Relative Weight Analyses (Study 2).

	China				United States			
	R^2 total	Raw weight	% of R^2	95% confidence interval	R^2 total	Raw weight	% of R^2	95% confidence interval
Responsibility	.257				.353			
Agency		.088	34.33	[.02, .20]		.351	99.52	[.20, .50]
Consequences		.169	65.67	[.07, .31]		.002	.48	[-.02, .04]
Agency-consequence difference		.081		[-.07, .24]		.349		[.19, .50]
Punishment	.121				.223			
Agency		.002	1.44	[-.06, .02]		.220	98.92	[.06, .41]
Consequences		.119	98.56	[.06, .33]		.004	1.53	[-.09, .03]
Agency-consequence difference		.117		[.03, .25]		.218		[.07, .40]
Blame	.173				.276			
Agency		.002	1.44	[-.04, .03]		.271	98.47	[.09, .44]
Consequences		.170	98.56	[.06, .33]		.004	1.53	[-.09, .03]
Agency-consequence difference		.168		[.06, .32]		.267		[.10, .44]

Note. Bolded relative weights (RWs) reflect $p < .05$.

does not allow us to make unambiguous comparisons among the predictors in terms of their contribution to the predicted variance. To assess a predictor's unique contribution to the outcome variable and its contribution while accounting for other predictors, Budescu's Dominance Analysis (Azen & Budescu, 2003) and Johnson's Relative Weights Analysis (Johnson, 2000) are generally considered the most valid approaches as they express predictors as a proportion of the R^2 assigned to each predictor variable (Tonidandel & LeBreton, 2011).

We conducted a relative weight analysis (RWA) using RWA-Web (Tonidandel & LeBreton, 2015); results from this analysis are summarized in Table 5. Bias-corrected and accelerated confidence intervals (CIs) for the individual relative weights (Johnson, 2004) and all corresponding significance tests were based on bootstrapping with 10,000

replications, an approach recommended by Tonidandel, LeBreton, and Johnson (2009).

Chinese. For Chinese participants, of the total R^2 (25.7%) that personal agency and consequences perceptions explained in responsibility ratings, the RWA indicated that personal agency accounted for 34.33% of this total R^2 , whereas consequences accounted for 65.67%. However, this relative weight difference between personal agency and consequences perceptions did not reach statistical significance, as the 95% CI contained zero (-.069 lower, .241 upper). For blame, consequences perceptions accounted for substantially more of the total R^2 (>98.5%), and the RWA indicated that consequences were significantly more heavily weighed than personal agency perceptions in determining punishment (.029 lower, .251 upper) and blame (.057 lower, .321 upper).

American. For the American participants, we tested whether participants weighed personal agency perceptions more heavily than consequences perceptions in determining responsibility, punishment, and blame. For all three outcome variables, personal agency perceptions accounted for almost all of the total R^2 ($>98.1\%$). The RWA indicated that personal agency perceptions were significantly more heavily weighed than consequences perceptions in determining responsibility (.187 lower, .500 upper), punishment (.071 lower, .402 upper), and blame (.104 lower, .443 upper).

Overall, the results of Study 2 provide important insights into how both Chinese and Americans make accountability judgments when faced with a situation where a target causes harm. Comparisons between cultures demonstrated that perceptions of how much the target acted with agency predicted subsequent judgments of responsibility, punishment, and blame more strongly for the American participants than for the Chinese participants. But, in contrast, Chinese participants relied more on perceptions of how severe the consequences of the targets' actions were than the American participants did when making such judgments. Comparisons within each culture indicated that the Chinese participants tended to consider the severity of the consequences more than personal agency when making judgments of responsibility, punishment, and blame. Conversely, American participants considered personal agency more than the severity of consequences when making these judgments.

Study 3

Our studies, thus far, have demonstrated that Americans rely heavily on perceptions of personal agency, but not on the severity of consequences, to make moral accountability judgments. Conversely, Chinese rely heavily on perceptions of the severity of consequences, but not on perceived personal agency, to make moral accountability judgments. Yet, all of our findings are correlational in nature and therefore leave open the possibility that rather than perceptions of personal agency and consequences being determinants of moral accountability, such accountability judgments might be determinants of how much individuals in America view an actor as having agency and how much individuals in China view an actor's actions as having severe consequences. To address this question of directionality, in Study 3, we manipulated the extent to which targets in our vignettes acted with or without individual agency and the extent to which there were severe as opposed to mild consequences of their actions. If, as we have hypothesized, perceptions of personal agency strongly influence Americans' judgments of accountability, then American participants should be most affected by the agency manipulation (i.e., a Culture \times Agency Perceptions interaction). And if perceptions of consequences underlie much of Chinese' judgments of accountability, then Chinese participants should be particularly affected by the consequences manipulation (i.e., a Culture \times Severity Perceptions interaction).

Method

Participants. In total, 550 online participants took part for modest payment. The 280 American participants (146 males, 134 females) were recruited from Amazon Mechanical Turk, whereas the 270 Chinese participants (116 males, 151 females, three did not indicate) were recruited from Zhubajie (a Chinese crowd-sourcing site). The mean age of the Americans was 34.63 ($SD = 13.03$) and the mean age of the Chinese participants was 25.56 ($SD = 5.10$). Our sample size selection was determined based on the expectation of a small to moderate effect (approximately $d = .35$) due to the imperfect nature of us determining what constituted high versus low levels of agency and harm severity, as well as the possibility that online participants working for small payments may take the study less seriously. A power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) revealed that to detect an effect size of $d = .35$ between two independent means, we would need 260 (130 in each group) participants to achieve 80% power with a 5% false-positive rate.

Procedure. The questionnaire was initially written in English before being translated into Chinese and then back-translated into English. The study employed a 2 (culture: American vs. Chinese) \times 2 (targets' agency: high vs. low) \times 2 (severity of consequences: high vs. low) design. After first answering a brief demographic questionnaire, participants were randomly assigned to their vignette condition which involved manipulating both the actor's agency and the consequences of the act: high agency–high consequences, high agency–low consequences, low agency–high consequences, and low agency–low consequences. We manipulated personal agency perceptions by emphasizing in the vignette how the target had agency to act (“he chose to use cheaper quality, less sturdy bricks”) or by describing how the target had no choice in how to act (“he was forced to use cheaper quality, less sturdy bricks”), and we manipulated the severity of the consequences by describing either severe outcomes that resulted from the target's actions (“she . . . hit a person crossing the street and killed him”) or describing how the target's actions had minimal consequences (“as a result, there were various traffic problems”).

Participants read a total of three vignettes modified from Study 2's vignettes (see Online Appendix). Whichever condition participants were randomly assigned to for the first vignette was the same condition they were assigned to for the second and third vignettes. After each vignette, participants indicated how responsible they viewed the target to be and how severely the target should be punished. The reliabilities for these items were moderate (Americans: $\alpha_{\text{responsible}} = .65$; $\alpha_{\text{punishment}} = .66$; Chinese: $\alpha_{\text{responsible}} = .70$; $\alpha_{\text{punishment}} = .61$), so we averaged scores together across vignettes to form a single responsibility and a single punishment score for each participant.

Results and Discussion

To test our hypotheses, we conducted separate ANOVAs for responsibility and punishment judgments. For each ANOVA, we entered culture, personal agency condition, consequences condition, the Culture \times Personal Agency Condition interaction, and the Culture \times Consequences Condition interaction as independent variables. As with Study 2, because it was not pertinent for the present inquiry, we present the results of the full factorial model in Supplementary Materials.

Responsibility judgments. When entering responsibility judgments as the dependent variable, the ANOVA yielded a significant main effect of culture, $F(1, 544) = 14.47, p < .001, d = .24$, such that American participants scored significantly higher, $M = 5.84, SD = 1.05$, than the Chinese participants, $M = 5.57, SD = 1.24$. The analysis also yielded a significant main effect of personal agency condition, $F(1, 544) = 56.09, p < .001, d = .61$. Participants in the high personal agency condition rated the targets as being more responsible, $M = 6.04, SD = 1.13$, than participants in the low personal agency condition, $M = 5.37, SD = 1.08$. In addition, there was a significant main effect of consequences condition, $F(1, 544) = 36.51, p < .001, d = .53$. Participants in the high consequences condition indicated that the targets were more responsible for what happened, $M = 5.94, SD = 0.90$, than participants in the low consequences condition, $M = 5.42, SD = 1.04$. We also found a significant Culture \times Personal Agency Condition interaction, $F(1, 544) = 4.61, p = .032, \eta^2 = .008$, and a significant Culture \times Consequences Condition interaction, $F(1, 544) = 18.86, p < .001, \eta^2 = .033$.

As in Study 2, we probed the two hypothesized interactions to verify that they were in line with our predictions. First, as depicted in Figure 1 (Panel A), the impact of the personal agency manipulation had a significantly stronger effect on the American participants, $M_{\text{high agency}} = 6.27, SD = 0.95, M_{\text{low agency}} = 5.41, SD = 0.96, F(1, 546) = 43.32, p < .001, d = .90$, than it did on the Chinese participants, $M_{\text{high agency}} = 5.81, SD = 1.16, M_{\text{low agency}} = 5.34, SD = 1.28, F(1, 546) = 12.50, p < .001, d = .38$. But the reverse was true when it came to the role perceived consequences played (Figure 1, Panel B). The consequences manipulation had a significantly stronger impact on the Chinese participants, $M_{\text{high consequences}} = 5.96, SD = 0.84, M_{\text{low consequences}} = 5.03, SD = 1.49, F(1, 546) = 46.83, p < .001, d = .77$, than it did on the American participants, $M_{\text{high consequences}} = 5.91, SD = 0.95, M_{\text{low consequences}} = 5.75, SD = 1.14, F(1, 546) = 1.46, p = .227, d = .15$. Thus, in line with our earlier studies, these results indicate that perceptions of personal agency play a larger role in determining responsibility judgments for Americans, whereas perceptions of the consequences play a larger role for the Chinese.

Punishment judgments. We next looked at the effect of our manipulations on how much both Chinese and American

participants thought the targets should be punished for what happened. We found a significant main effect of culture, $F(1, 544) = 59.43, p < .001, d = .62$, indicating that Chinese participants believed the targets deserved more punishment, $M = 6.00, SD = 0.91$, than did the American participants, $M = 5.34, SD = 1.19$. We also found a significant effect of personal agency condition, $F(1, 544) = 73.56, p < .001, d = .68$, with those in the high personal agency condition scoring higher on punishment, $M = 6.03, SD = 0.93$, than those in the low personal agency condition, $M = 5.31, SD = 1.16$. In addition, we found a main effect of the consequences condition, $F(1, 544) = 19.11, p < .001, d = .37$, such that those in the high consequences condition wished to punish more, $M = 5.85, SD = 1.03$, than did those in the low consequences condition, $M = 5.44, SD = 1.16$. We also found a significant Culture \times Personal Agency Condition interaction, $F(1, 544) = 18.63, p < .001, \eta^2 = .033$, but there was not a significant Culture \times Consequences Condition interaction, $F(1, 544) = .11, p = .732, \eta^2 = .0002$.

The significant Culture \times Personal Agency Condition interaction corresponds well with our findings for responsibility judgments in both Studies 1 and 2. Specifically, the impact of the personal agency condition on Americans' judgments of punishment was extremely strong, $F(1, 546) = 82.50, p < .001, d = 1.00, M_{\text{high agency}} = 5.88, SD_{\text{high agency}} = 0.90, M_{\text{low agency}} = 4.81, SD_{\text{low agency}} = 1.21$, whereas for the Chinese participants this difference, though significant, was attenuated relative to the Americans, $F(1, 546) = 8.24, p = .004, d = .39, M_{\text{high agency}} = 6.18, SD_{\text{high agency}} = .93, M_{\text{low agency}} = 5.83, SD_{\text{low agency}} = 0.85$. However, the nonsignificant Culture \times Consequences Condition interaction indicates that, unlike what we have found previously, the two cultures relied on the severity of the consequences of the targets' behavior in approximately the same manner when it came to punishment judgments.

Within-culture differences using RWA. Again, we used an RWA to examine within each culture to explore whether perceptions of personal agency or consequences played a larger role in determining participants' judgments. Results from the RWA are summarized in Table 6.

Chinese. Of the total R^2 (17.4%) that personal agency and consequences perceptions explained in responsibility ratings, the RWA found that personal agency accounted for 21.00% and consequences accounted for the remaining 79.00%, and this difference was statistically significant since the 95% CI did not contain zero (.017 lower, .195 upper). This result indicates that the Chinese participants more heavily weighed consequences than personal agency when making their responsibility judgments. Unexpectedly, however, the RWA indicated that when it came to punishment judgments, the total R^2 was about equally accounted for by personal agency and consequences perceptions, and there was no significant difference between them (−.066 lower, .079 upper).

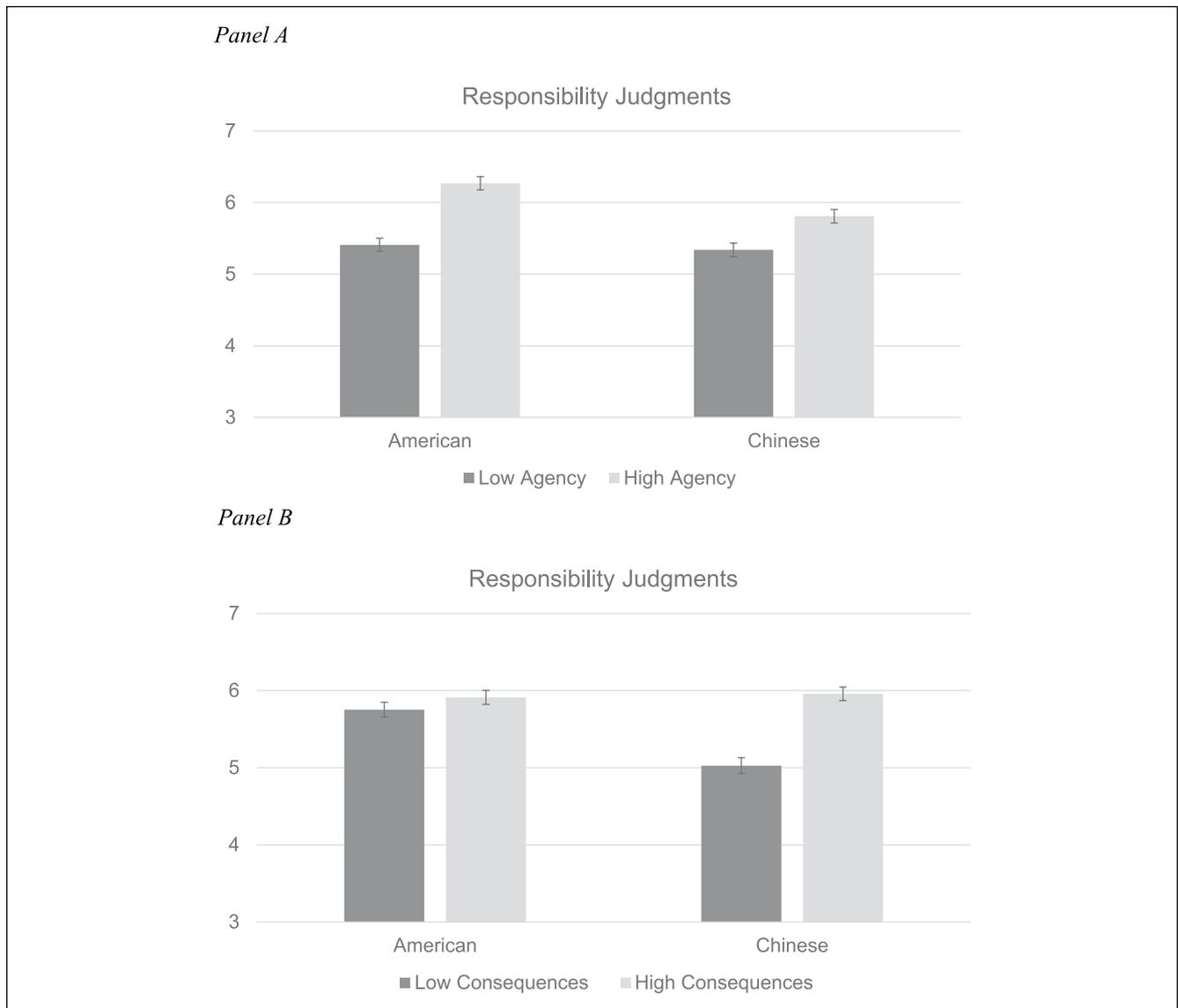


Figure 1. The effect of the agency manipulation on participants’ responsibility judgments (Panel A) and consequences manipulation on participants’ responsibility judgments (Panel B) (Study 3).
 Note. Error bars represent +1 and -1 standard errors of the mean.

Table 6. Relative Weight Analyses (Study 3).

	China				United States			
	R ² total	Raw weight	% of R ²	95% confidence interval	R ² total	Raw weight	% of R ²	95% confidence interval
Responsibility	.174				.175			
Agency		.037	21.00	[-.06, .06]		.169	96.82	[.08, .26]
Consequences		.137	79.00	[.02, .19]		.005	3.18	[-.01, .04]
Agency–consequence difference		.100		[.02, .20]		.164		[.07, .26]
Punishment	.071				.229			
Agency		.038	53.14	[.00, .10]		.202	87.87	[.11, .28]
Consequences		.033	46.86	[.00, .09]		.028	12.13	[-.02, .07]
Agency–consequence difference		.005		[-.07, .08]		.174		[.09, .27]

Note. Bolded RWs reflect $p < .05$ (Study 3).

American. For Americans, personal agency perceptions accounted for 96.82% of the total R^2 in explaining responsibility judgments, whereas consequences perceptions only accounted for 3.18%. The RWA's 95% CI indicated that this difference was significant (.068 lower, .260 upper). Similarly, personal agency perceptions accounted for 87.87% of the total R^2 in explaining punishment judgments, and consequences accounted for only 12.13%, which was also found to be a significant difference (.091 lower, .266 upper).

Overall, in Study 3, by manipulating the extent to which targets did or did not act with agency as well as the extent to which their actions either caused minimal or severe consequences, we found causal evidence indicating that (a) the extent to which a transgressor acted with personal agency affects American participants' judgments of responsibility more than it affects Chinese participants' judgments, (b) the extent to which a targets' actions had severe consequences affects Chinese participants' judgments of responsibility more than it affects American participants' judgments, (c) American participants' judgments of responsibility are driven primarily by perceptions of personal agency and not by perceptions of how severe the consequences were, and (d) Chinese participants' responsibility judgments are influenced mainly by perceptions of how severe the consequences were and not personal agency perceptions.

Interestingly, however, when it came to punishment judgments, the results were only partially in line with our hypotheses and with what we found regarding responsibility judgments. Although the Americans relied more on personal agency perceptions than did the Chinese participants when making punishment judgments, we found that the Chinese and Americans relied about evenly on consequences when it came to determining punishment. Considering that our high consequences condition increased punishment ratings (compared with the low consequences condition) for the Americans, $M_{\text{increase}} = 0.39$, by approximately the same amount as it did for the Chinese, $M_{\text{increase}} = 0.34$, it suggests that something about this manipulation resonated with the Americans as much as with the Chinese. Possibly, our manipulation involved such a high level of consequence (e.g., people dying) that it crossed a threshold where Americans begin to incorporate the consequences of a target's action along with personal agency as determinants of deserved punishment. For instance, it may be that if that threshold is reached, an overwhelming desire to punish occurs because such severe outcomes trigger a deep-seated need to restore just-world beliefs.

Study 4

Studies 1 to 3 demonstrated that Chinese participants place great weight on the perceived consequences of an act when making their judgments. Throughout, we have hypothesized that the underlying reason for this is that when a harmful act occurs, Chinese rely on the perceived severity of the act as an

indicator of how much social harmony was disrupted, which they then use as a determinant of how much to hold the target morally accountable. However, we have not yet demonstrated this empirically. In Study 4, we used the same vignettes as Study 2, but along with measuring perceptions of personal agency and severity of consequences as predictors of participants' judgments, we included a measure of how much participants viewed the actions of each vignette's target as having disrupted social harmony. We expected that we would replicate the findings from Study 2, and most importantly, we predicted that the relationship between Chinese participants' perceptions of how severe the harmful act was and their responsibility, blame, and punishment judgments would be explained by how much they viewed social harmony to have been disrupted by the target's behavior.

Method

Participants. A total of 423 online participants took part for modest payment. The 201 American participants (92 males, 109 females) were recruited from Amazon Mechanical Turk, whereas the 222 Chinese participants (101 males, 119 females, two did not indicate) were recruited from Zhubajie and Sojump. The mean age of the Americans was 36.21 ($SD = 11.41$) and the mean age of the Chinese participants was 29.95 ($SD = 7.33$). As this study built directly on Study 2, we determined our sample from the smallest effect size found in Study 2 which was the interaction of culture and agency predicting responsibility judgments (Cohen's $f^2 = .031$). A power analysis using G*Power (Faul et al., 2007) revealed that we would need at least 256 participants to achieve 80% power with a 5% false-positive rate. We collected the larger sample to further ensure we had adequate statistical power.

Procedure. The procedure for Study 4 was the same as the one used in Study 2, but in Study 4 we included additional items after each vignette to assess perceived social harmony disruption. Specifically, we asked participants "How much did [the target's] behavior disrupt social harmony (the smooth functioning of society)?" and "How much did [the target's] behavior harm everyone's collective welfare?" Participants responded on a scale ranging from 1 (*not at all*) to 7 (*a great deal*). Reliability between these two items was high (Americans: $\alpha = .90$, Chinese: $\alpha = .90$), so we averaged the two items together into a *social harmony disruption* measure. Participants also responded to a few additional exploratory items, including a measure of how much they believed most other people would feel anger toward the target, how immoral they viewed the target to be, and how immoral they viewed the targets' actions to be. Results relating to these exploratory items can be found in Supplementary Materials. The reliabilities across vignettes for each measure were moderate (Americans: $\alpha_{\text{responsible}} = .60$; $\alpha_{\text{punishment}} = .65$; $\alpha_{\text{blame}} = .60$; $\alpha_{\text{agency}} = .62$; $\alpha_{\text{consequences}} = .69$; $\alpha_{\text{social harmony disruption}} = .74$;

Table 7. Means, Standard Deviations, and Correlations for All Variables, Separated by Culture (Study 4).

	M (SD) Chinese sample	Responsibility	Punishment	Blame	Agency	Consequences	Social harmony disruption	M (SD) American sample
Responsibility	5.37 (0.81)	—	.63*** [.54, .71]	.74*** [.67, .80]	.62*** [.53, .70]	.21** [.07, .34]	.19** [.05, .32]	4.88 (0.84)
Punishment	4.78 (0.90)	.73*** [.66, .79]	—	.82*** [.77, .86]	.49* [.38, .59]	.14* [.00, .27]	.25*** [.12, .38]	3.90 (0.94)
Blame	4.87 (0.93)	.69*** [.62, .75]	.88*** [.85, .91]	—	.65*** [.56, .72]	.13 [−.01, .26]	.24*** [.11, .37]	4.39 (0.91)
Agency	4.15 (0.94)	.13* [.00, .26]	.16* [.03, .29]	.19** [.06, .31]	—	.14* [.00, .27]	.18* [.04, .31]	4.79 (0.88)
Consequences	5.82 (0.76)	.58*** [.49, .66]	.52*** [.42, .61]	.46*** [.35, .56]	−.01 [−.14, .12]	—	.19* [.05, .32]	5.75 (0.76)
Social harmony disruption	5.41 (0.76)	.57*** [.47, .65]	.69*** [.62, .75]	.65*** [.57, .72]	.09 [−.04, .22]	.70*** [.63, .76]	—	4.87 (0.93)

Note. Values for Americans ($n = 201$) are above the diagonal and values for Chinese ($n = 222$) are below the diagonal. Numbers in brackets represent the 95% confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Chinese: $\alpha_{\text{responsible}} = .67$; $\alpha_{\text{punishment}} = .72$; $\alpha_{\text{blame}} = .72$; $\alpha_{\text{agency}} = .61$; $\alpha_{\text{consequences}} = .69$; $\alpha_{\text{social harmony disruption}} = .67$, so we collapsed across the vignettes to form an overall score for each item for each participant.

Results and Discussion

Means, standard deviations, and correlations for all variables, separated by culture, are presented in Table 7. We followed the same multiple regression analysis strategy as in Study 2, but this time we explored two regression models for each dependent variable. The first model was the same as the model from Study 2 where we entered culture, personal agency, consequences, Culture \times Personal Agency, and Culture \times Consequences as predictors. In the second model, we replaced consequences with social harmony disruption, and the Culture \times Consequences predictor with Culture \times Social Harmony disruption (see Supplementary Materials for regressions expanding these two models to include the full factorial analyses). Table 8 presents the results of these regression analyses.

We found main effects of culture for each of the dependent variables, indicating that the Chinese participants tended to hold the targets more accountable than the American participants. In addition, we found the predicted Culture \times Personal Agency and Culture \times Consequences interactions for participants' judgments, thus replicating our findings from Study 2. Most importantly, in line with our hypotheses, we found that the Chinese participants not only scored higher than the Americans on social harmony disruption, but for them social harmony disruption was a much stronger predictor of each dependent variable than it was for the Americans.

Mediation. To test our hypothesis that perceived social harmony disruption explained why the Chinese participants, but

not the American participants, grounded their judgments in the perceived severity of the harm inflicted, we conducted a series of moderated mediation analyses (one for each of the three dependent variables) using the PROCESS Macro (Hayes, 2013), entering perceived consequences as the predictor, culture as the moderator, and social harmony disruption as the mediator. We found that the indirect effect of social harmony disruption was significant for the Chinese for each dependent variable (Responsibility: .26, CI = [.14, .40], Punishment: .57, CI = [.43, .73], and Blame: .58, CI = [.42, .77]). Furthermore, we found that 0 was not in the 95% CI for tests of moderated mediation for each dependent variable (Responsibility [.01, .39], Punishment [.17, .58], and Blame [.18, .62]). These results, therefore, indicate that a key reason why Chinese participants (but not American participants) relied primarily on perceived consequences when making their judgments was because the perceived consequences allowed them to assess social harmony disruption, which in turn led to their moral accountability judgments.

Within-culture differences using RWA. As before, we used RWAs to explore within each culture what role agency, consequences, and social harmony played in determining judgments of responsibility. Results are summarized in Table 9.

Chinese. Replicating our earlier effects, we found that the Chinese participants weighed consequences more heavily than agency when making their judgments of responsibility, blame, and punishment. Also, in line with our predictions, Chinese participants weighed social harmony significantly more than agency.

American. As predicted, when it came to judgments of responsibility, blame, and punishment, American participants

Table 8. Multiple Regression Results (Study 4).

	Responsibility			Punishment			Blame		
	<i>b</i>	<i>SE</i>	CI	<i>b</i>	<i>SE</i>	CI	<i>b</i>	<i>SE</i>	CI
Panel A									
Culture	0.69***	0.07	[0.56, 0.83]	1.07***	0.08	[0.91, 1.23]	0.74***	0.08	[0.59, 0.89]
Agency	0.55***	0.05	[0.45, 0.65]	0.49***	0.06	[0.37, 0.61]	0.64***	0.06	[0.53, 0.76]
Culture × Agency	-0.44***	0.07	[-0.57, -0.31]	-0.34***	0.08	[-0.50, -0.18]	-0.46***	0.08	[-0.62, -0.31]
Agency simple slopes: China	0.12**	0.04	[0.04, 0.20]	0.15**	0.05	[0.05, 0.25]	0.18***	0.05	[0.08, 0.28]
Agency simple slopes: United States	0.55***	0.05	[0.45, 0.65]	0.49***	0.06	[0.37, 0.61]	0.64***	0.05	[0.54, 0.74]
Consequences	0.11*	0.05	[0.01, 0.20]	0.07	0.06	[0.12, 0.41]	0.04	0.05	[-0.07, 0.14]
Culture × Consequences	0.36***	0.06	[0.24, 0.49]	0.39***	0.08	[0.00, 0.36]	0.39***	0.07	[0.25, 0.54]
Consequences simple slopes: China	0.47***	0.04	[0.39, 0.55]	0.46**	0.05	[0.36, 0.56]	0.43***	0.04	[0.35, 0.51]
Consequences simple slopes: United States	0.11*	0.05	[0.01, 0.21]	0.07	0.05	[-0.03, 0.17]	0.04	0.05	[-0.06, 0.14]
Panel B									
Culture	0.53***	0.07	[0.39, 0.67]	0.81***	0.08	[0.66, 0.97]	0.50***	0.08	[0.35, 0.65]
Agency	0.56***	0.05	[0.45, 0.66]	0.47***	0.06	[0.36, 0.59]	0.63***	0.05	[0.52, 0.73]
Culture × Agency	-0.49***	0.07	[-0.62, -0.35]	-0.38***	0.08	[-0.53, -0.23]	-0.50***	0.07	[-0.64, -0.36]
Agency simple slopes: China	0.07	0.04	[-0.01, 0.15]	0.09	0.05	[-0.01, 0.19]	0.12**	0.04	[0.04, 0.20]
Agency simple slopes: United States	0.56***	0.05	[0.46, 0.66]	0.47***	0.05	[0.37, 0.57]	0.63***	0.05	[0.53, 0.73]
Social harmony disruption	0.07	0.05	[-0.02, 0.16]	0.15***	0.05	[0.06, 0.25]	0.12*	0.05	[0.02, 0.21]
Culture × Social Harmony Disruption	0.46***	0.07	[0.33, 0.60]	0.56***	0.08	[0.41, 0.71]	0.58***	0.07	[0.44, 0.72]
Social harmony disruption simple slopes: China	0.53***	0.05	[0.43, 0.63]	0.72***	0.06	[0.60, 0.84]	0.69***	0.05	[0.59, 0.79]
Social harmony disruption simple slopes: United States	0.07	0.04	[-0.01, 0.15]	0.15***	0.04	[0.07, 0.23]	0.12**	0.04	[0.04, 0.20]

Note. Panel A represents the results for the model examining culture, agency, consequences, and the Culture × Agency and Culture × Consequences interactions. Panel B represents the results for the model examining culture, agency, social harmony, and the Culture × Agency and Culture × Social Harmony interactions. Americans ($n = 201$) coded as 0 and Chinese ($n = 222$) coded as 1. *b* = unstandardized regression weight; *SE* = standard error; CI = 95% confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

weighed agency significantly more than they weighed either consequences or social harmony.

In all, Study 4's results provided further support for our hypotheses about the cross-cultural determinants of moral accountability judgments. Most importantly, we found evidence explaining why Chinese participants weigh the perceived consequences of a harmful act so heavily when making their judgments of responsibility, blame, and punishment; these perceptions predict how much they view social harmony to have been disrupted, which they in turn use as the basis for making judgments about responsibility, blame, and punishment.

General Discussion

Cross-cultural research has consistently found that individuals from East Asian collectivist cultures tend to make external explanations for people's behavior (Miller & Bersoff, 1992; Morris & Peng, 1994). This tendency to

make external explanations, it would seem, would lead East Asian collectivists to be less likely to hold those who cause harm as responsible for their actions and as deserving of punishment. Yet, many East Asian collectivistic cultures are known for being punitive, and the results of the present research attest to this, with our Chinese participants scoring at least as high (and often significantly higher) as our American participants on punitiveness. The present research aimed to explain this apparent discrepancy, hypothesizing that the determinants of responsibility and punishment judgments for Western individualists and East Asian collectivists are different. In particular, we predicted that the individualists' judgments would rely mainly on perceptions of an actor's agency, whereas the collectivists' judgments would rely mainly on perceptions of how severe the consequences were of the actor's behavior. To test our hypotheses, we conducted a series of studies where participants from a Western individualistic culture (Americans) and participants from an East Asian collectivistic culture

Table 9. Relative Weight Analyses (Study 4).

	China				United States			
	R ² total	Raw weight	% of R ²	95% confidence interval	R ² total	Raw weight	% of R ²	95% confidence interval
Panel A								
Responsibility	.353				.403			
Agency		.018	5.17	[-.01, .08]		.373	92.74	[.25, .49]
Consequences		.335	94.83	[.21, .47]		.029	7.26	[-.01, .10]
Agency–consequence difference		.317		[.17, .46]		.344		[.19, .49]
Punishment	.293				.248			
Agency		.026	8.94	[-.03, .10]		.235	94.69	[.13, .36]
Consequences		.266	91.06	[.16, .40]		.013	5.31	[-.01, .07]
Agency–consequence difference		.240		[.10, .38]		.222		[.10, .35]
Blame	.252				.424			
Agency		.036	14.34	[-.04, .10]		.415	97.88	[.31, .51]
Consequences		.216	85.66	[.10, .32]		.009	2.12	[-.01, .05]
Agency–consequence difference		.180		[.04, .32]		.406		[.29, .52]
Panel B								
Responsibility	.331				.394			
Agency		.012	3.66	[-.01, .07]		.372	94.30	[.25, .50]
Social harmony		.319	96.34	[.20, .45]		.002	5.70	[-.00, .09]
Agency–social harmony difference		.307		[.17, .44]		.370		[.20, .49]
Punishment	.485				.271			
Agency		.017	3.61	[-.03, .07]		.225	82.81	[.12, .34]
Social harmony		.467	96.39	[.34, .56]		.047	17.19	[-.02, .15]
Agency–social harmony difference		.450		[.30, .57]		.178		[.02, .15]
Blame	.444				.440			
Agency		.026	5.86	[-.01, .10]		.402	91.22	[.28, .50]
Social harmony		.418	94.14	[.29, .53]		.039	8.78	[-.03, .11]
Agency–social harmony difference		.392		[.24, .52]		.363		[.22, .50]

Note. Panel A presents the results comparing the within-culture influence of agency and consequences perceptions. Panel B presents the results comparing the within-culture influence of agency and social harmony perceptions. Bolded relative weights (RWs) reflect $p < .05$.

(Chinese) made judgments about various targets who each caused some form of harm to others.

In support of our hypotheses, in Studies 1 to 2 and 4, we found that the relationship between responsibility and punishment judgments and perceptions of agency was much weaker for the Chinese participants than it was for Americans. Conversely, we found that the main determinant of responsibility and punishment judgments for the Chinese participants was their perceptions of how severe the consequences were of the targets' actions. In Study 3, we manipulated how much agency targets had to act as well as how severe the consequences of their actions were and found causal support for our hypotheses—the manipulation of agency had a much stronger impact on the Americans' judgments of responsibility and punishment, whereas the manipulation of consequences had a stronger impact on the Chinese participants' judgments. Finally, in Study 4, we found that perceived social harmony disruption was an underlying reason as to why Chinese participants rely so heavily on the severity of the consequences when making

their judgments. Table 10 presents a meta-analytic summary of the results for Studies 1 to 4.

Theoretical and Practical Contributions

To many Westerners, our findings that perceptions of the actors' agency did not play a large role in dictating Chinese participants' responsibility and punishment judgments may seem illogical and unfair. How could someone perceived to have had little choice in the matter be held responsible and be punished for what happened? Such thinking itself reflects an individualistic mindset that does not as heavily prioritize collectivistic goals such as social harmony and social roles/obligations. The severity of a harmful act reflects the extent to which it undermines social harmony, and thus, consequences matter greatly for collectivists (Sullivan et al., 2012). Even if the actor had no choice in the matter, he or she undermined social harmony and collective welfare. Put simply, a severe harm-doer, whether acting with agency or not, may be perceived as a malfunctioning gear in the social machinery that

Table 10. Meta-Analysis of Study 1 to 4 Results.

	American sample				Chinese sample			
	<i>k</i>	<i>N</i>	<i>M r</i>	95% CI <i>r</i>	<i>k</i>	<i>N</i>	<i>M r</i>	95% CI <i>r</i>
Association with agency								
Responsibility	4	680	.55	[.50, .60]	4	738	.22	[.15, .29]
Punishment	4	680	.45	[.39, .51]	4	738	.14	[.07, .21]
Blame	2	304	.61	[.54, .68]	2	376	.15	[.05, .25]
Association with consequences								
Responsibility	3	584	.12	[.04, .20]	3	676	.46	[.40, .54]
Punishment	3	584	.12	[.04, .20]	3	676	.35	[.28, .42]
Blame	2	304	.07	[-.04, .18]	2	376	.45	[.37, .53]

Note. *K* = number of effect sizes; *N* = total sample size; *M r* = sample-size weighted mean correlation indicating zero-order association between agency/consequences and moral accountability judgment variables; CI = confidence interval for observed correlation (see Supplementary Materials for more information about these analyses).

maintains a cohesive collective. If one prioritizes maintaining social cohesiveness, it might matter less why the gear has malfunctioned, but only that it has, and to what degree (for similar reasoning, see Durkheim, 1893).

Our findings add to the growing list of fundamental differences between Western individualistic and East Asian collectivistic cultures and point to how impactful cultural upbringing is to the formation and organization of people's cognition. Moreover, the present research also lends insight into how such cognitive differences can scale up from individual-level to group-level differences in how societies function and solve social challenges. Indeed, considering how fundamental judgments of moral responsibility and punishment are in how a society organizes itself and maintains social order, our findings that individualists and collectivists rely on different determinants of moral responsibility and punishment provide a fundamental tool for understanding the formation of more macro-level cross-cultural differences.

Our findings, we believe, help provide insights into various cross-cultural questions and misunderstandings. For instance, our results may explain why East Asian societies tend to punish individuals who, from a Western perspective, did nothing wrong. As an example, in 2004, two Japanese journalists and an aid worker were taken hostage in Iraq, only to be safely returned to Japan where they had been vilified by the Japanese public for bringing great stress upon the Japanese government and its people (Onishi, 2004, as cited in Maddux & Yuki, 2006), suggesting that these hostages were judged not for their intentions, but instead the consequences of their actions.

From a business standpoint, our results suggest that East Asian collectivist governments may be more likely to punish organizations that disrupt social harmony, regardless of their intentions, perhaps explaining why in China white collar executives are often sentenced to death for their crimes (Badkar, 2013). Similarly, as major innovations can result in unexpected negative side effects, it may behoove East Asian collectivist companies (or multinational organizations conducting operations in these cultures) to be more cautious in

the type of innovation or advancement they pursue. To avoid disrupting social harmony and suffering punishment for it, they may be motivated to pursue small, incremental improvements upon existing products rather than engaging in paradigm-shifting inventions.

From a political standpoint, our results may mean that an East Asian collectivist government would be less likely to condemn the actions of other governments unless these actions somehow disrupt the social harmony of the East Asian collectivist's country. Previous literature argues that East Asian collectivists largely prioritize their own ingroup's welfare over the outgroups' (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988), raising an interesting question, "Would Chinese participants in our studies have made the same judgments if they had been informed that the targets' actions took place in a foreign country and therefore had no impact on their own group's social harmony?" Future research might examine whether moral judgments of outgroup actors are less harsh than judgments of ingroup actors for East Asian collectivists because such actions do not directly affect their own nation's social harmony.

Our findings also add to key debates regarding several philosophical principles. For instance, both compatibilists (those believing that the universe is deterministic but humans have free will) and incompatibilists (those believing that free will cannot exist if the universe is deterministic) use lay intuitions about agency to support their arguments about whether anyone can ever be held morally responsible if determinism is true (Kane, 1999). However, our research calls into question whether or not agency perceptions are truly fundamental to one's lay intuitions. At the very least, the link between agency perceptions and moral responsibility may vary by culture. As another example, people debate over the merits of consequentialist versus deontological ethics. Our research here suggests that whether people support consequentialism or deontology may rest on how much an individual focuses on social harmony versus agency, supporting arguments that moral principles may not be universal if lay intuitions can vary.

Finally, our findings may provide reasons why there are cultural differences underlying the role of sanctions. For the most part, scholars have demonstrated that Westerners tend to sanction criminals to balance the scales of justice (i.e., give criminals their “just desserts”), supported by research on just-world theory (Carlsmith, Darley, & Robinson, 2002; Lerner, 1980). However, research by Sullivan and coauthors (2016) suggests that collectivists may be more likely than individualists to sanction criminals to deter transgressions and preserve social harmony. Our findings suggest that if one’s focus is on maintaining social harmony, then perhaps deterrence is more psychologically important for the role of sanctions. However, if one’s focus is on individual rights, then perhaps just desserts is more psychologically important for the role of sanctions. A deeper understanding of why people punish necessarily requires a deeper understanding of what factors (e.g., cultural differences) influence moral judgment in the first place.

Limitations and Issues for Future Research

Although the current studies support our predictions for cross-cultural differences in moral responsibility and punishment judgment, they were also limited in various ways. Given that all of our studies used vignettes, it is possible that the vignettes we designed were culturally biased in ways that might artificially produce our results. For example, in Studies 1 to 2 and 4, we purposefully aimed to create vignettes that portrayed the targets’ agency as somewhat ambiguous so that participants could make their own judgments. It is possible, however, that this ambiguity was culturally biased based on the topics or descriptions we made. Similarly, it is possible that the wording of our dependent variable questions also had unintended biases that led to our results. We aimed to mitigate these issues by purposefully having a Chinese researcher in Study 2 develop the vignettes and response items. Even so, it is difficult to fully rule out cultural biases in the development of our materials as a factor influencing our results. Thus, our understanding of the cross-cultural determinants of moral responsibility and judgment would benefit from replication studies involving additional stimuli and response items beyond the ones we used. Moreover, it would be beneficial to incorporate behavioral measures that directly capture how much observers in collectivist and individualist cultures blame and punish those who commit harms.

Furthermore, it may be that the harmful behaviors described in our vignettes were viewed in the moral domain by the American participants but not by the Chinese, as conceptualization of immorality differs between those in the West and East (Buchtel et al., 2015; Shweder et al., 1997). As such, an alternative interpretation of our results may be that the American participants were basing their judgments on moral considerations while the Chinese participants were basing their judgments on more normative considerations (e.g., how others might punish the harm-doer; Kwan, 2016;

see Supplementary Materials for analyses exploring effect of normative beliefs about how much anger participants believed others would feel toward targets), and that there is something particular about actions within the moral domain that leads people, regardless of cultural background, to base their judgments primarily on perceived agency. If so, it is possible that had we used vignettes describing transgressions that were more in the moral domain for Chinese participants, then their judgments might have been grounded more in perceived agency. We believe this possibility is unlikely as East Asian collectivists should focus on social harmony regardless of whether an act is within the moral domain or not (see also Supplementary Materials for analyses relating to morality perceptions). Even so, future research could test if and how American and Chinese judgments might differ depending on how much transgressions fall within each culture’s domain of morality.

Our use of Chinese and American participants may also raise issues in regard to generalizability. Certainly, China does not represent all collectivistic cultures and the United States does not represent all individualistic cultures. Furthermore, meta-analyses have shown that among Asians, Chinese have been found to be less individualistic and more collectivistic (Oyserman et al., 2002). This raises the possibility that the cultural effects we found using Chinese participants may not generalize to all East Asian countries, although such countries are also grouped under the larger heading of “collectivistic cultures.” Along the same lines, the United States may be more individualistic than those in other countries deemed “individualistic cultures.” Similarly, although cross-cultural research typically examines individuals from East Asian nations as representatives of collectivistic cultures, there are of course collectivistic cultures throughout the world. Thus, overall, it would be useful for future research to explore the cross-cultural determinants of moral responsibility not just between two countries but among multiple countries from across the globe to determine whether the phenomena we observe here relate to East Asians, Chinese, or collectivists in general.

Conclusion

A large body of literature has shown that dispositional causes of harmful behavior are condemned more harshly than situational causes of harmful behavior (Alicke, 1992; Malle et al., 2014). Given that individualists are more likely to make dispositional attributions for behavior than are collectivists, then we should observe that individualists tend to be more punitive than collectivists. Yet, many collectivistic cultures are just as punitive if not more so than individualistic cultures. In the present research, we aimed to shed light on this apparent contradiction by exploring how individuals make moral responsibility and punishment judgments, and in particular, how different cultural backgrounds can dictate how strongly individuals weigh the determinants (i.e., the

perceived agency of the harm-doer and the perceived severity of the harm) of responsibility and punishment judgments. As nations perpetually intersect via globalization, cross-cultural research in moral judgments becomes increasingly important as cultural differences in beliefs regarding what constitutes an appropriate amount of moral responsibility and punishment can lead to both interpersonal and intergroup conflict.

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Notes

1. We report means and standard deviations that are not log-transformed for the sake of interpretation, but statistical analyses are conducted using the logged data.
2. We chose to ask about perceived free will instead of directly asking about perceived agency because we believed participants would find the concept of "perceived free will" more easily comprehensible than "perceived personal agency."
3. Philosophical and religious differences between China and the United States prompted us to verify that participants understood the term free will similarly. In a pilot study, we measured perceptions that target's actions involved free will, personal choice, ability to have done otherwise, and personal control. Factor analyses for each culture indicated that these four items formed a single factor explaining a large portion of the variance (>62%), and for both cultures, the free will item had an extremely high factor loading (>.84). As such, we felt confident that the two cultures understood this term similarly and that both were equating it to lay notions of acting with agency.

Supplemental Material

Supplemental material is available online with this article.

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