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Negotiable Fate: Social Ecological Foundation and Psychological Functions

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Abstract

Individuals can negotiate with fate for control through exercising personal agency within the limits that fate has determined, a belief that is referred to as *negotiable fate*. The current study examined: (a) the social ecological factors that contribute to the prevalence of this belief in negotiable fate and; (b) the psychological functions it serves. The results from a cross-cultural study suggested that negotiable fate is more prevalent in contexts where individuals face many constraints in the pursuit of their goals (i.e., in Mainland China versus the United States), and it promotes active coping and positive self-views in those contexts. The importance of understanding how fate beliefs are linked to sociocultural contexts was discussed in reference to the psychological control literature and cultural psychology.

Keywords

fate belief, implicit theories, sociocultural contexts, cultural psychology, constraints

Negotiable fate (Chaturvedi, Chiu, & Viswanathan, 2009) refers to the belief that individuals can negotiate with fate for control, and they do this by exercising personal agency within the limits that fate has determined. The concept of negotiable fate is related to the idea of *fate control*, the belief that life events are predetermined *and* that there are some ways for people to influence these outcomes (Leung et al., 2002). Nonetheless, the two concepts, albeit related, are not identical. Fate control, measured by an 8-item scale, refers to *a collection of beliefs* that support the dialectical relationship between fatalism and control over personal outcomes, including fatalistic determinism ("Fate determines one's successes and failures"), predictability of predetermined outcomes ("Most disasters can be predicted"), cycle of fortune and misfortune ("Good luck follows if one survives a disaster"), and possible personal control over luck ("There are certain

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ways to help us improve our luck and avoid unlucky"). In contrast, the concept of negotiable fate, epitomized in the popular saying, "If fate hands you lemons, make lemonade," captures only the agentic aspect of fate control, focusing on the expected efficacy of one's ability to maximize gains and minimize losses given the circumstances and boundaries set by fate.

The concept of negotiable fate suggests that one can acknowledge fate's authority over personal outcomes without an accompanying sense of helplessness. This is because individuals can still engage in active coping to make the best out of the situation. Thus, believing in fate's influence over individual outcomes does not necessarily entail relinquishing one's personal agency.

Cultural practices that embody the belief in negotiable fate are present all over the world, including the practice of *qi-fu* in China—where individuals make offerings to divine deities in exchange for divine favor and protection, and the practice of reading horoscopes in the West. Nonetheless, negotiable fate and its related concept of fate control seems to be more widespread in Southeast Asia, East Asia, and Eastern Europe (e.g., Thailand, China, Korea, Russia, Georgia) than Western Europe and English-speaking countries (e.g., Norway, Spain, Canada, and the United States; Leung & Bond, 2004).

The goal of the present study was to gain a better understanding of the social ecology behind negotiable fate, providing insight into when and why individuals develop this belief. We sought to show that negotiable fate is more prevalent where people experience many constraints in the pursuit of personal goals, and that this belief helps individuals engage in active coping and maintain positive self-views in spite of the constraints they face.

The Social Ecology of Fate Beliefs

We contend that negotiable fate is more popular in sociocultural contexts where people face many (vs. few) constraints in pursuing their goals. This idea is consistent with the past finding that personal agency is popular in contexts where people experience relatively few constraints in their life space. Examples of such context include people living in economically advanced countries (e.g., the United States; see Markus & Kitayama, 2003) and ethnic majority with relatively high levels of educational attainment (e.g., European Americans with college education; Stephens, Markus, & Townsend, 2007). These individuals believe in self-determination and would be unlikely to endorse the notion of negotiable fate.

In contrast, the belief in negotiable fate is more widespread among those who experience many constraints in the pursuit of individual goals. Indeed, countries with higher fate control scores are ones that face greater physical and economic hardships (e.g., have lower life expectancy at birth, lower level of environmental sustainability, lower GDP per capita) and fewer political and civil liberties (Leung & Bond, 2010). In addition, a recent study showed that women (a gender minority) with low literacy levels in India (a developing collectivist country where personal outcomes depend, to a large extent, on other people's evaluations of the self and reactions to one's actions) are particularly likely to endorse negotiable fate (Chaturvedi et al., 2009). These women were also more likely to believe that they must make the best out of the current circumstances that were imposed by fate.

Thus, we hypothesize that the perceived level of constraints in one's life space would mediate country differences in the strength of belief in negotiable fate. To test our hypothesis, we collected data in China and the United States. We compared these two countries because the Chinese have been shown to believe more strongly in fate control than Americans do (Leung & Bond, 2004). In addition, it has also been documented that the Chinese experience more constraints in their goal pursuits (Chen, Chiu, & Chan, 2009). However, previous studies have not examined whether country differences in perceived constraints mediate country differences in the belief in negotiable fate.

The Psychological Functions of Fate Beliefs

The need for personal control is a fundamental human need (Janos & Papousek, 1977; Papousek, 1967). Individuals encountering obstacles in fulfilling this need will develop a fate belief that allows the attribution of the constraints they face to their fate. This belief further enables them to maintain positive views of the self because they believe that even though they cannot overcome these constraints, they can work around them by "managing" their fate in different ways, including various superstitious practices (see Au et al., in press). Thus, they also tend to engage in active coping, focusing on solving the problem and mobilizing their social resources to achieve their goals. Indeed, research has shown that among low literacy women in India, those who believe more strongly in negotiable fate are more likely to process information analytically to identify the concrete constraints they face and to single out the most strategic and cost-effective actions to achieve their goals (Chaturvedi et al., 2009). Also consistent with this idea, other research has also found that at the country level, fate control was associated with higher academic achievement and economic competitiveness, suggesting that the dualistic belief in fate and personal agency has adaptive functions, despite the acknowledgement of fate (Zhou, Leung, & Bond, 2009). In contrast, individuals from a less constrained environment (i.e., the United States) tend to believe in self-determination instead of relying on the belief in negotiable fate to establish their sense of control and positive self-views. Consequently, we hypothesize that the belief in negotiable fate would be associated with active coping and self-esteem in China only.

Theoretical Contributions

The theoretical contributions of the present investigation are two-fold. First, it expands the conceptual domain of the psychology of control in social psychology. Past research on perceived control often pits the ideas of fate and personal control against each other; one either has control over the outcome or one relinquishes it (Kluckhorn & Strodtbeck, 1961). We submit that this is not the only possible way to conceptualize the relationship between fate and personal control. In fact, this particular conceptualization is rooted in certain sociocultural contexts where people experience relatively few constraints in life.

Second, there is consistent evidence from cross-cultural studies that the model of personal agency is more popular in Western than in Asian societies (Markus & Kitayama, 2003). This result may lead some to assume that personal agency is not emphasized in Asian societies. However, this assumption flies in the face of the strong economic dynamism in countries such as India and China. If the hypotheses of the present research are borne out, it will provide evidence that in certain sociocultural contexts, beneath the acceptance of fate's control over personal outcomes hides a powerful drive to control individual outcomes despite the severe constraints people have to face when pursuing their goals.

Method

Participants

The participants were 168 Chinese undergraduates (mean age = 18.81, *SD* = 1.20, 67.7% female) from a public university in Beijing, China, and 165 undergraduates (mean age = 18.88, *SD* = 1.66; 45.5% female) from a public university in the American Midwest. The Chinese students participated in this study for 8 yuan and the American students did so for course requirement credit.

Measures

Fate beliefs. We used a short form of the Negotiable Fate Measure developed by Au (2008) and used in Chaturvedi et al. (2009) to measure negotiable fate. This measure consists of 4 items (e.g., "When fate does not give me the most favorable situations, I need to make the best of the situations I am given" and "I should deal with what fate has given me to make the best of things"; $\alpha = .67$ in the U.S. sample and .65 in the Chinese sample). Participants indicated the extent to which they agreed to each statement on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*). To distinguish the belief in negotiable fate from fatalism (the idea that one should submit the self to the influence of fate), we also included an 11-item measure of fatalism adapted from Chaturvedi et al. (2009; $\alpha = .90$ in the U.S. sample and .89 in the Chinese sample). Sample items in the scale are: "My planning cannot divert what fate has determined for me" and "Any effort invested in changing my fate will be futile." Participants indicated the extent to which they agreed to each statement on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

Belief in a fixed world. Following Chen et al. (2009), we measured perceived environmental constraints with the lay theory of world scale (Chiu, Dweck, Fu, & Tong, 1997). The measure consists of 8 items that assess the perceived immutability of the societal conditions ($\alpha = .88$ in both samples). Two sample items are "Our world has its basic or ingrained characteristics, and we really can't do much to change them" and "When necessary, the core characteristics of our world can be changed" (reverse scored). Participants indicated their level of agreement with each item on a scale that ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores on this measure indicated a stronger belief in the immutability of the social conditions. Previous research has provided considerable evidence that the belief in immutable conditions is associated with acceptance of political constraints (Chiu & Hong, 1999) and lack of job mobility in the society (Chen et al., 2009).

Active versus avoidant coping. We used the Ways of Coping scale (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) to examine the frequency at which participants used different coping strategies to deal with stressful situations. This scale measures eight coping methods that reflect active versus avoidant coping strategies. Four subscales (i.e., focus on the positive, self-blame, tension reduction, and keep to the self) had low reliabilities ($\alpha \leq .58$) because of the small number of items (3-4). Therefore, we did not use those particular subscales in the analyses. The remaining four subscales had acceptable reliabilities in both samples. Among them, problem-focused coping (example item: "Stand on ground and fight for what I want"; $\alpha_{American} = .73$; $\alpha_{Chinese} = .79$) and seeking social support (example item: "Talk to someone who can do something concrete about the situation"; $\alpha_{American} = .67$; $\alpha_{Chinese} = .69$) are active coping methods, and wishful thinking (example item: "Wish the situation would go away or somehow be over with"; $\alpha_{American} = .79$; $\alpha_{Chinese} = .69$) and detachment (example item: "Go on as if nothing is happening"; $\alpha_{American} = .67$; $\alpha_{Chinese} = .54$) are avoidant coping methods. Participants indicated the extent to which they used each strategy in stressful situations in general and responded on a 4-point Likert-type scale (0 = *not used*; 1 = *used somewhat*; 2 = *used quite a bit*; 3 = *used a great deal*).

We combined the coping subscales to create two factors: active coping and avoidant coping. The *active coping* factor comprised the Problem-Focused Coping and Seeking Social Support subscales ($\alpha = .80$) and the *avoidant coping* factor of the Detachment and Wishful Thinking subscales ($\alpha = .78$).

Self-esteem. We used the Rosenberg Self-Esteem Scale (Rosenberg, 1965) to measure self-esteem ($\alpha_{American} = .89$; $\alpha_{Chinese} = .79$) . The scale is a 10-item measure that includes items such as "I feel that I have a number of good qualities" and "I take a positive attitude towards myself." Participants indicated the extent to which they agreed with each statement on a scale from 1 (*very strongly disagree*) to 9 (*very strongly agree*). High scores represented high self-esteem.

Results

Overview

The results provided support for our hypotheses. Compared to Americans, the Chinese believed more strongly in an immutable world and negotiable fate, and the belief in an immutable world significantly mediated the country difference in negotiable fate. Furthermore, among the Chinese, believing in negotiable fate was correlated positively with active coping and self-esteem. In contrast, among Americans, believing in negotiable fate was positively correlated with avoidant coping and uncorrelated with self-esteem.

Factorial Validity and Cross-Cultural Measurement Equivalence of Negotiable Fate

Exploratory factor analysis with varimax rotation performed on the negotiable fate and fatalism items showed that negotiable fate and fatalism are distinct fate beliefs. The scree plot indicated that a two-factor solution, accounting for 54.0% of the total variance, was optimal. The fatalism items had significant loadings (> .63) on the first factor only (loadings on the second factor < .40) and the negotiable fate items had significant loadings (> .65) on the second factor only (loadings on the first factor < .20). Factor analysis performed separately on the two cultural samples yielded highly similar factor solutions (cross-cultural factor congruence = .89 for the negotiable fate factor, and .78 for the fatalism factor).

To determine cross-cultural measurement equivalence of the negotiable fate scale, we performed multi-group confirmatory factor analysis on the four negotiable fate items. First, we fitted the items to the two samples without constraining the model parameters. Next, all the factor loadings were constrained so that they were equivalent in both cultures. The two models fitted the data equally well: CFI = .97 and RMSEA = .085 for the unconstrained model and CFI = .96 and RMSEA = .056 for the constrained model; $\Delta\chi^2(df = 3) = 5.29$, *ns*. These results attested to the measurement equivalence of the negotiable fate scale.

Finally, in both samples, the correlations between fatalism and negotiable fate were small ($r = .24$ for Americans and .08 for the Chinese), indicating that negotiable fate and fatalism are distinct constructs.

Social Ecology of Negotiable Fate

Table 1 shows the country differences in the fate beliefs. Consistent with our hypothesis, the Chinese believed much more strongly in negotiable fate than did the Americans, although the two groups did not differ in how much they believed in fatalism. The results also supported our assumption that the Chinese (vs. Americans) perceived constraints in the society to be more severe: The Chinese believed more strongly in a fixed world than did the Americans. Furthermore, as hypothesized, the belief in a fixed world was positively correlated with negotiable fate ($r_{all} = .29$, $p < .001$; $r_{US} = .24$, $p < .01$, $r_{China} = .19$, $p < .05$).

Next, we tested whether the belief in a fixed world would mediate the country difference in negotiable fate. Consistent with the mediation hypothesis, there were significant country differences in both negotiable fate and belief in a fixed world. Furthermore, the belief in a fixed world (the hypothesized mediator) was significantly related to negotiable fate. Controlling for the effect of the fixed world belief in a multiple regression (B for fixed world belief in the multiple regression = 0.25, $SE = 0.05$, $p < .001$) significantly reduced the size of the country effect on negotiable fate (change in $R^2 = .07$), $F(1, 330) = 24.94$, $p < .001$. The mediation effect of the

Table 1. Country Differences in the Measured Variables

	United States			Mainland China			Country Difference *F* Ratio[a] (η^2_p)
	M	*SD*	α	*M*	*SD*	α	
Fatalism	2.65	0.86	.90	2.57	0.93	.89	0.91 (.003)
Negotiable fate	4.34	0.88	.67	5.48	0.61	.65	192.71*** (.367)
Belief in fixed world	3.73	0.61	.88	4.15	1.03	.88	16.67*** (.048)
Active coping	1.83	0.32	.78	1.78	0.40	82	1.41 (.004)
Avoidant coping	1.56	0.56	.83	1.42	0.43	.71	6.19* (.018)
Self-esteem	6.90	1.37	.89	6.55	1.38	.79	5.42* (.016)

a. $df_{model} = 1, df_{error} = 331$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 2. Predicting Active and Avoidant Coping From Country, Negotiable Fate, and Their Interaction

	F Ratio[a]	η^2_p
Within-subjects		
Coping style	152.08**	.316
Between-subjects		
Country	5.24*	0.16
Negotiable fate	16.66**	0.48
Country × Negotiable Fate	< .01	.000
Mixed model		
Coping Style × Country	2.68	.008
Coping Style × Negotiable Fate	0.04	.000
Coping Style × Country × Negotiable Fate	17.22***	.050

a. $df_{model} = 1, df_{error} = 329$.
*$p < .05$. **$p < .01$. ***$p < .001$.

belief in a fixed world was also significant (Sobel $z = 2.79$, $p < .01$). In sum, the belief in a fixed world was a partial mediator of the country difference in negotiable fate.

Correlations With Coping and Self-Esteem

In a society with few immutable constraints, people do not need to recruit negotiable fate to motivate active coping. However, in a society with many immutable constraints, the belief in negotiable fate can motivate active coping. To test our hypothesis regarding the differential associations between coping styles and negotiable fate across the two countries, we performed a mixed model General Linear Model (GLM) with Coping Styles (active or avoidant, within-subjects), Country, and Negotiable Fate (mean-centered) as predictor variables and the two coping styles as dependent variables. We hypothesize a significant Country × Coping Style × Negotiable interaction: For the Chinese, negotiable fate would correlate with active coping only; for the Americans, negotiable fate would correlate with avoidant coping only. The results of the mixed-model GLM are presented in Table 2.

As shown in Table 2, the predicted Coping Style × Country × Negotiable Fate interaction was significant; therefore, all lower order results were interpreted in light of this predicted

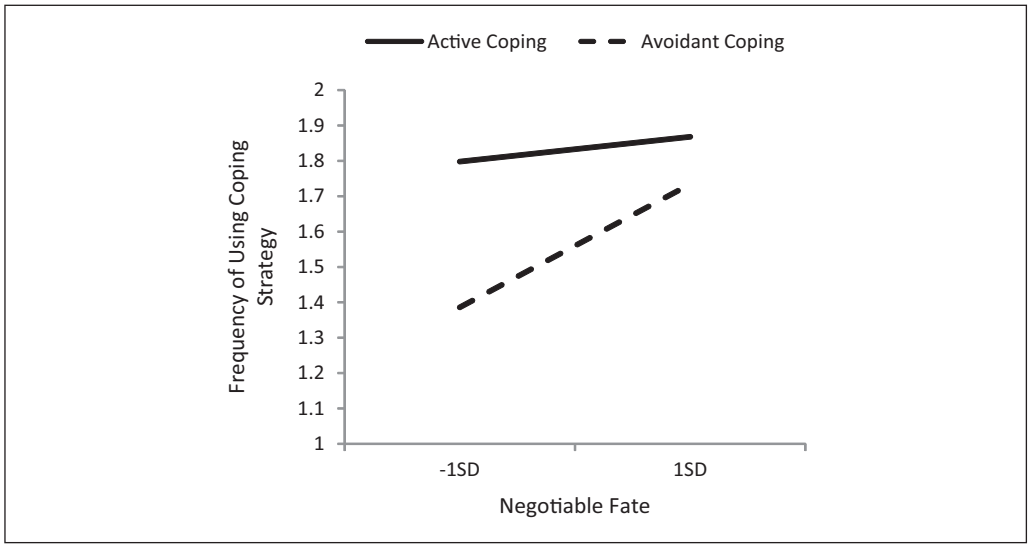

Figure 1. Frequency of Using Active and Avoidant Coping as a Function of Negotiable Fate in the American Sample

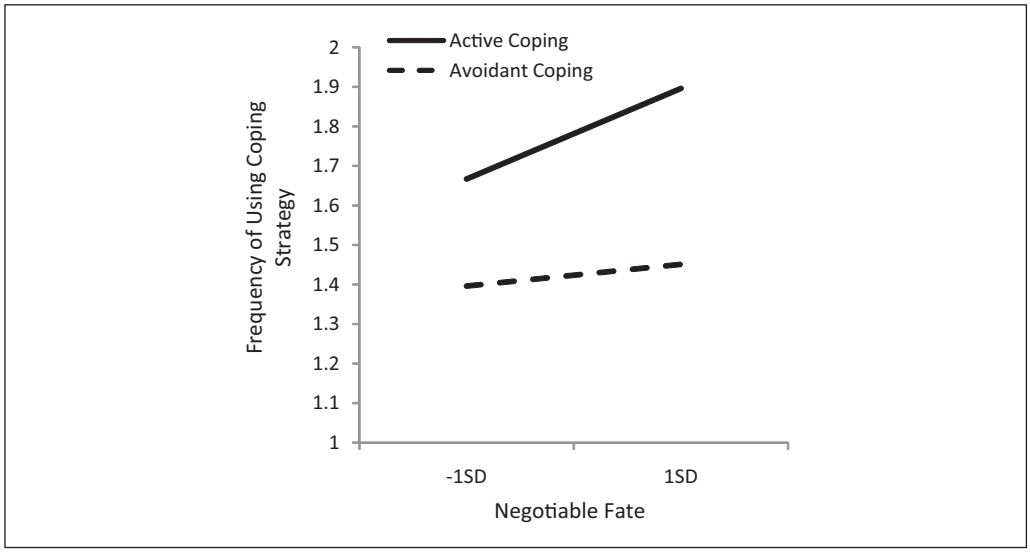

Figure 2. Frequency of Using Active and Avoidant Coping as a Function of Negotiable Fate in the Chinese Sample

interaction. To interpret the lower level effects, we examined the relationship of believing in negotiable fate and active versus avoidant coping for the Chinese sample and American sample separately. Figures 1 and 2 show the level of active and avoidant coping as a function of negotiable fate. For the American sample (Figure 1), the belief in negotiable fate was associated with a greater tendency to engage in *avoidant* coping only ($r = .313$, $p < .001$ between negotiable fate and avoidant coping, and $r = .09$, $p = .26$ between negotiable fate and active coping). For the Chinese sample (Figure 2), the reverse was found: The belief in negotiable fate was associated

Table 3. Predicting Active or Avoidant Coping From Country, Fatalism, and Their Interaction

	F Ratio[a]	η^2_p
Within-subjects		
Coping style	152.08**	.316
Between-subjects		
Country	4.36*	.013
Fatalism	12.23**	.036
Country × Fatalism	3.25	.01
Mixed Model		
Coping Style × Country	1.94	.006
Coping Style × Fatalism	20.89**	.060
Coping Style × Country × Fatalism	0.14	.000

a. $df_{model} = 1$, $df_{error} = 329$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4. Predicting Self-Esteem From Country, Negotiable Fate, and Their Interaction

	B (Unstandardized)	*t* Statistic
Country	0.14	2.50*
Negotiable Fate	0.09	1.55
Country × Negotiable Fate	−0.15	−2.51*

with a greater tendency to engage in *active* coping only ($r = .06$, $p = .41$ between negotiable fate and avoidant coping, and $r = .28$, $p < .001$ between negotiable fate and active coping). Taken together, these results supported our hypothesis that the belief in negotiable fate is accompanied by the use of active coping strategies among those experiencing relatively greater constraints.

As in past research (Kalichman, Kelly, Morgan, & Rompa, 1997; Kouabenan, 1998), fatalism was associated with avoidant coping in both cultures. The results of a mixed model GLM with Coping Style (active or avoidant, within-subjects) × Country × Fatalism (mean-centered) are presented in Table 3. The results suggested that individuals who believe in fatalism are more likely to engage in avoidant coping ($r = .26$, $p < .01$); fatalism was unrelated to the active coping measure ($r = .03$, *ns*).

We also expected negotiable fate to be divergently associated with self-esteem across different sociocultural contexts. More specifically, negotiable fate was predicted to be positively associated with self-esteem only in societies where there are many immutable constraints. To test this hypothesis, we conducted a regression analysis with self-esteem as the dependent variable and country, negotiable fate (mean-centered), and the Country × Negotiable Fate interaction as predictors. As shown in Table 4, the main effect of country was significant; Americans reported higher levels of self-esteem than did the Chinese (see Table 1). This main effect was interpreted in light of the significant Country × Negotiable Fate interaction (Figure 3); negotiable fate was positively associated with self-esteem in China only ($r = .18$, $p < .05$ for the Chinese, and $r = -.07$, $p = .39$ for Americans). Again, the results did not differ after controlling for the effect of fatalism.

An analogous effect of fatalism was not found after conducting a regression analysis, in which country, fatalism (mean-centered), and the Country × Fatalism interaction term were entered as

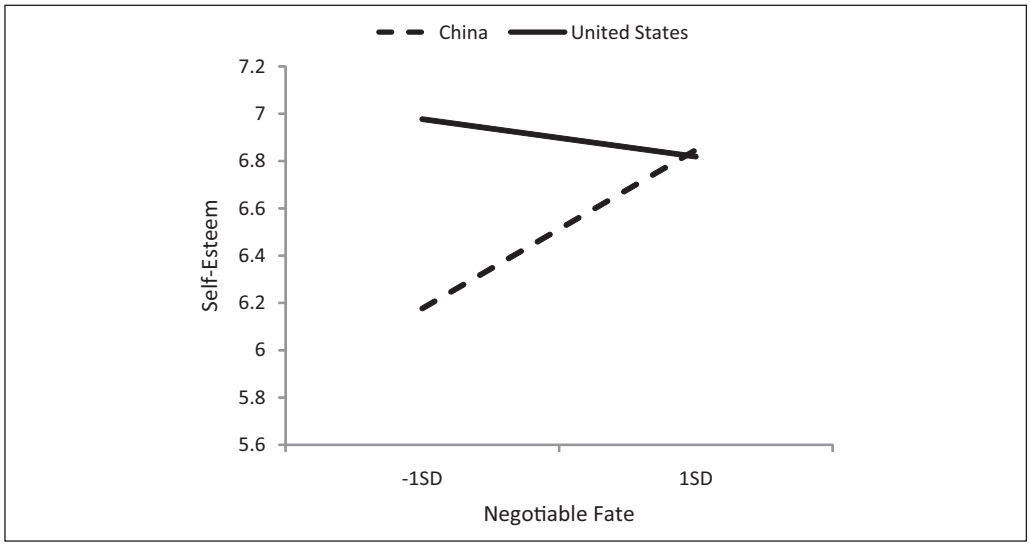

Figure 3. Cultural Differences in the Association of Negotiable Fate and Self-Esteem

the predictors of self-esteem. In addition to the significant country main effect, $F(1, 329) = 6.80$, $p = .01$, $\eta^2_p = .02$, only the fatalism main effect was significant, $F(1, 329) = 4.46$, $p < .05$, $\eta^2_p = .01$; fatalism was correlated with lower self-esteem ($r = -.11$, $p = .06$). The Country × Fatalism interaction was nonsignificant, $F(1, 329) = 0.54$, $p = .46$.

Discussion

In past research, individuals were depicted either as someone who regards the self as master of fate, overcoming obstacles in the environment that might otherwise hinder personal achievements, or as someone who surrenders to the power of fate and adjusts himself/herself to what fate has in store for him/her (Heckhausen & Schulz, 1995; Kluckhorn & Strodtbeck, 1961; Rotter, 1966; Rothbaum, Weisz, & Snyder, 1982; Weisz, Rothbaum, & Blackburn, 1984). The present research examined negotiable fate as a conceptualization of fate in social ecologies characterized by a large amount of constraints. We contend that the belief in negotiable fate is more prevalent in sociocultural contexts where individuals face greater levels of constraints in their daily lives.

Consistent with this contention, we found stronger endorsement of negotiable fate in China than in the United States. We also replicated the finding that the Chinese perceived more constraints in their life space than did the Americans (Chen et al., 2009). More importantly, the belief in an immutable (constrained) environment mediated country differences in the belief in negotiable fate.

We further argue that the belief in negotiable fate can help individuals remain active in coping and sustain positive views of the self when they perceive many constraints in their life space. In contrast, individuals who face fewer constraints do not resort to the belief in negotiable fate to sustain active coping or self-esteem. Consistent with this argument, our results revealed that among the Mainland Chinese, the belief in negotiable fate was linked to active coping and self-esteem, even though this belief was also linked to the perception of the world as being fixed. In contrast, for European Americans, the belief in negotiable fate was positively correlated with both the use of avoidant coping strategies and the belief in a fixed world.

These results highlighted the fact that cultural constructions of fate depend on shared experiences with the environment. Acknowledgment of fate is not universally associated with the relinquishment of control. Rather, when the ecological factors of the individuals' everyday life require the management of severe constraints in the pursuit of desired goals, the belief in negotiable fate takes on an agentic flavor that enables the individuals to engage in active coping and to maintain positive self-regard. In sum, fate beliefs grow out of experienced realities and develop in ways that enable individuals to strive in the environment they face.

Recent research has begun to explore the effects of ecological factors on the geography of thought (Chen et al., 2009; Miyamoto, Nisbett, & Masuda, 2006; Oishi, Lun, & Sherman, 2007). The goal in this new approach is to understand the characteristic thinking styles of a human group in terms of the unique ecological environment that supports these thinking styles. For example, Chen et al. (2009) have found that low job mobility is associated with the perceived importance of displaying role-consistent personality traits in a certain professional category for job performance, and this relationship is mediated by people's belief that the world is fixed. Oishi et al. (2007) demonstrated that lack of residential mobility is an underlying reason for the evolution of collectivism. In our view, both low job mobility and low residential mobility may be experienced as structural constraints in goal pursuits. Hence, the cultural effects resulting from low mobility can be considered as specific instances of how environmental constraints on goal pursuits shape evolution of cultural representations, which in turn impact culture-characteristic cognitive processes (Zou et al., 2009).

Future Directions and Conclusions

The framework introduced in this article to understand country differences in the endorsement and functions of negotiable fate can also provide insight into within-culture variations in fate beliefs. As is true between countries, individuals *within* a country may also experience different amounts of constraints and hence vary in the extent of subscription to the belief in negotiable fate (Chaturvedi et al., 2009; Snibbe & Markus, 2005; Stephens et al., 2007). Future research may wish to explore the utility of this framework for understanding individual differences in people's idea about fate within a culture.

Second, the present study provided correlational evidence for the link between experienced constraints and fate beliefs. However, future research needs to address the *causal* effect of experiencing environments with varying degrees of constraints on fate beliefs. This can be done in several ways, such as through experimental studies in which participants are led to experience different levels of constraints across experimental conditions or through longitudinal studies in which the experience of constraints changes across time (e.g., moving into a new country). Last, we used only four items to capture the belief in negotiable fate. Thus, although the reliability of this measure is acceptable, we recommend future research that seeks to further refine the negotiable fate measure.

In conclusion, we have found evidence from a cross-cultural study that provides an alternative perspective to conceptualizing fate. The results suggested that when the sociocultural context requires individuals to navigate severe constraints in pursuit of their goals, the acknowledgement of fate is not accompanied with the relinquishment of control; rather, individuals see the need to work with (or work around) the constraints set by fate. In this way, they sustain engagement in active coping and maintain positive self-views.

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Declaration of Conflicting Interests

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