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Beyond personal control: When and how executives' beliefs in negotiable fate foster entrepreneurial orientation and firm performance

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Beyond personal control: When and how executives' beliefs in negotiable fate foster entrepreneurial orientation and firm performance

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A B S T R A C T

Negotiable fate, the belief that fate imposes boundaries within which personal actions can shape outcomes, is rooted in Chinese collective wisdom. This belief is hypothesized to prompt executives to use of available resources to create opportunities by directing their attention to controllable aspects of unpredictable environments. Thus, executives' endorsement of negotiable fate beliefs is expected not only to enhance firm-level entrepreneurial orientation, but also to positively predict firm innovation and financial performance. We further expect these mediation effects to be stronger under dynamic environments. Studies of top executives in China support the theorized moderated-mediation model. By providing evidence for its context-specific benefits, the concept of negotiable fate enhances the dialogue on fate beliefs in the Chinese context and suggests new directions for organizational behavior scholarship beyond China.

Keywords:
Entrepreneurial orientation
Environmental dynamism
Financial performance
Innovation performance
Negotiable fate

"尽人事而听天命" *(Do the best you can, and leave the rest up to fate.)*

"谋事在人, 成事在天" *(Effort is controlled by the person, success is determined by fate.)*

[*Chinese proverbs*]

1. Introduction

Chinese collective wisdom gives fate a prominent role in causal models (Arkush, 1984). The importance of fate in Asian causal thinking is also observed empirically: the East has been consistently shown to have a stronger belief in fate than the West (Cheng, Cheung, Chio, & Chan, 2013; Leung et al., 2002). Current theories, which have primarily been developed in the West, posit that individuals who believe fate causes outcomes can become passive and withdrawn (Rotter, 1966; Seligman, 1972). However, China's economic growth from 1986–2016 suggests otherwise, as the average annual GDP per capita growth has been approximately 9% (World Bank, 2016). Traditional theories of fate beliefs and perceived control developed in the West cannot adequately account for China's aggressive growth.

Considering the conflicting Western/Eastern views regarding fate, scholars have argued that uniquely Chinese orientations towards fate merit more systematic attention from organizational behavior scholars (Bond, 2009; Leung, 2010, 2012). Our research addresses *negotiable fate*, a cultural value that is prevalent in Chinese society and firmly embedded in the collective wisdom of Chinese proverbs (Au, 2008; Au et al., 2012; Chiu, Au, & Zhang, 2012). Negotiable fate is defined as the belief that fate imposes boundaries within which personal actions can shape outcomes. In contrast with traditional theories of fate beliefs and perceived control, which posit that personal action *or* fate is sufficient to determine outcomes (Rotter, 1966), negotiable fate postulates that fate and personal action have *conjoint* influences on outcomes (see Fig. 1), and prescribes specific roles for each.

Although the concept of negotiable fate is rooted in ancient Chinese proverbs, it has played a very important role in China's recent and rapid economic growth (World Bank, 2016). As China shifted from a planned to a market economy, it has experienced great turbulence and uncertainty, and yet, many Chinese business leaders have incorporated an entrepreneurial orientation into the way in which their enterprises operate. We theorize that Chinese business leaders' beliefs about how fate and personal action jointly influ-

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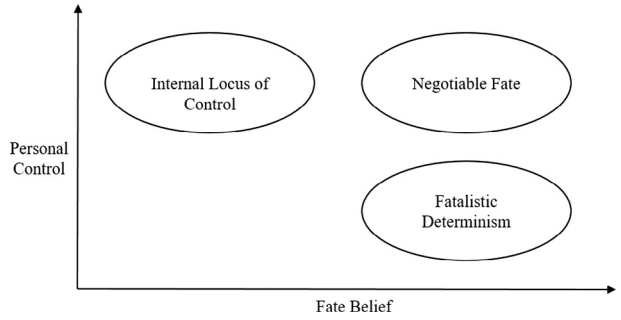

Fig. 1. Negotiable fate, internal locus of control, and fatalistic determinism in relation to the belief in personal control and fate.

ence outcomes provide the basis for initiative to find and leverage the best uses of available resources.

A firm's entrepreneurial orientation—its strategic stance towards innovation—enables it to undertake somewhat risky ventures, and beat competitors (Covin & Slevin, 1989; Dess & Lumpkin, 2005; Miller, 1983; Simsek, Heavey, & Veiga, 2010). The importance of entrepreneurial orientation lies in its robust association with firm performance (Rauch, Wiklund, Lumpkin, & Frese, 2009). Firm-level entrepreneurial orientation has been attributed to those characteristics and values of executives that propel them to make assertive strategic choices (Koenig, Schlaegel, & Gunkel, 2013; Simsek et al., 2010). Following the rich tradition of scholarship on how leaders' characteristics shape firm-level strategies and performance (Chatterjee & Hambrick, 2007; Li & Tang, 2010; Nadkarni & Herrmann, 2010), we study the effects of executives' beliefs in negotiable fate on firm outcomes through firm-level entrepreneurial orientation.

Past empirical findings have established internal locus of control (Koenig et al., 2013) and favorable core self-evaluations (Simsek et al., 2010) as essential characteristics of executives that foster firm-level entrepreneurial orientation. However, compared with respondents from Western samples, Chinese respondents tend to exhibit lower levels of internal locus of control (Evans, 1981; Lu, Kao, Cooper, & Spector, 2000; Na & Loftus, 1998), and relatively stronger beliefs in fate (Leung et al., 2002). Findings such as these suggest that Chinese firms should be less entrepreneurial than those outside of China, but empirical findings do not show that this necessarily follows (Global Entrepreneurship Monitor, 2016; Lu & Tao, 2010).

We propose that Chinese executives effectively navigate dynamic and changing environments by acknowledging those aspects that are uncontrollable through their beliefs in negotiable fate. Given China's rapid transition from a planned to a market economy, institutional structures to support commerce may be less well established than those in many Western countries. One such institutional structure is the legal system: laws are poorly defined and constantly changing (Zhang, 2014), and firms have relatively underdeveloped and informal legal support (Xin & Pearce, 1996). Thus, executives must recognize that uncontrollable external factors impact outcomes if they are to successfully navigate this type of environments. However, in contrast with the traditional formulation of external locus of control and fatalistic determinism (Leung et al., 2012; Rotter, 1966; Seligman, 1972), negotiable fate beliefs do not imply passivity; instead, they encourage the exercise of personal control within the boundaries imposed by fate. So understood, Chinese executives can acknowledge that external factors have impact but still believe they can alter outcomes. We propose that believing in negotiable fate encourages executives to make the most of available resources, and find optimal outcomes through experimentation. We call such deduction *negotiable fate logic*.

In addition to the turbulence of the Chinese economy as a whole, executives' immediate environments can attenuate or accentuate their experiences of uncertainty (i.e., environmental dynamism). We maintain that environmental dynamism strengthens the relationship between executives' beliefs in negotiable fate and firm-level entrepreneurial orientation. Our rationale is that highly dynamic environments offer numerous possibilities for satisfying consumer demands, and the most appropriate options are unknown at the outset of innovation processes. For uncertain market environments that carry high risk of failure, negotiable fate logic enables firms to make the best use of available resources and successfully create market opportunities (Sarasvathy, 2001).

Furthermore, consistent with past research (Rauch et al., 2009), we theorize that firm-level entrepreneurial orientation promotes stronger firm innovation and financial performance. Thus, we expect that executives' beliefs in negotiable fate will foster stronger firm-level entrepreneurial orientation; in turn, firm-level entrepreneurial orientation will lead to stronger firm innovation and financial performance. These mediation effects are expected to be stronger for firms in highly dynamic environments.

Our research makes several noteworthy contributions to the literature on perceived control, fate beliefs, and entrepreneurial orientation. First, we answer calls to enrich the study of organizational behavior in China by better understanding the meaning of fate and perceived control in the Chinese cultural context (Bond, 2009; Leung, 2012). Negotiable fate, rooted in Chinese proverbs, represents a model of causality in which internal and external factors are believed to jointly influence outcomes. We use negotiable fate to explain when and how Chinese executives simultaneously report strong beliefs in fate, or external locus of control, and make strategic entrepreneurially-oriented decisions. Thus, we demonstrate how causal models reflecting cultural values can explain phenomena observed in China.

Second, we provide insight into how Chinese executives navigate unique challenges that currently characterize the turbulence and uncertainty of China's economy but may also be encountered beyond China's borders. Our knowledge of entrepreneurial orientation, its foundations and effects, is based upon the findings of studies from Western economies (Simsek et al., 2010) that are markedly different from China's turbulent and uncertain economy. We propose that in turbulent and uncertain environments, negotiable fate beliefs provide executives with impetus to focus their attention on making the most of available resources. Our theoretical work predicts that (1) beliefs in negotiable fate will foster an entrepreneurial orientation in Chinese executives; and (2) environmental dynamism will moderate this relationship such that it is stronger when environmental dynamism is high rather than low. Such moderation is consistent with our view that negotiable fate has *context-specific* benefits, suggesting that the control perspective associated with negotiable fate can potentially explain the emergence of entrepreneurial orientation in environments other than China where uncertainty is endemic. We elaborate on these and other contributions in the discussion section.

2. Theoretical foundation and hypotheses development

2.1. Conceptualizing negotiable fate

Over the last three decades, empirical findings have consistently shown that people from Asian countries, relative to those from Western countries, have lower internal locus of control or higher external locus of control (Cheng et al., 2013; Evans, 1981), and believe more strongly in fate (Leung et al., 2002). Paradoxically, however, Asians are not passive, and they do not lack the drive to succeed: seven Asian cities are included among the top

ten cities with the longest working hours (UBS, 2015). To reconcile these seemingly contradictory phenomena, we followed sage advice: "If one's purpose is to understand behavior enacted within a given cultural group, one must use the local understanding of general beliefs" (Bond, 2009, p. 329). We determined that a study of Chinese proverbs could reveal cultural values explaining how the Eastern belief in fate differs from Western formulations (Arkush, 1984; Mieder, 2004).

Our comprehensive review of Chinese proverbs revealed three distinct sets of beliefs regarding control (Au, 2008; Chiu et al., 2012): (1) personal control, in which individuals solely determine outcomes; (2) fatalistic determinism, in which fate controls outcomes; and (3) negotiable fate, in which individuals and fate conjointly influence outcomes. A cross-cultural comparison showed that Chinese proverbs were more likely than American proverbs to speak of negotiable fate. This finding underscores our description of negotiable fate as anchored in Chinese tradition and reflects collective wisdom that has weathered intergenerational changes.

2.1.1. Conceptual and empirical distinctions

For scholars of organizational behavior, models or theories of fate and perceived control have typically been developed either in the West (Rotter, 1966) or to capture pan-cultural beliefs (Bond, 2009; Leung et al., 2002, 2012). In contrast, negotiable fate finds its origin in Chinese collective wisdom. Negotiable fate theory is still in its infancy, and thus, we discuss similarities and differences with respect to the three most relevant constructs: (1) fatalistic determinism (Leung et al., 2012), (2) fate control (Leung et al., 2002, 2012), and (3) internal locus of control (Rotter, 1966).

First, fatalistic determinism, also called *fatalism*, is the belief that individuals cannot change the path that fate has set (Leung et al., 2012), as reflected in two Chinese proverbs, "百事分已定, 浮生空自忙" (Any efforts to change your fate will be futile), and "天算不由人算" (Your planning cannot divert what fate has planned). Thus, one's fate is pre-determined and unchangeable, rendering personal efforts irrelevant. Both fatalistic determinism and negotiable fate acknowledge the role of fate, but beliefs in negotiable fate preserve space for personal initiative to change outcomes by navigating the boundaries that fate imposes. Thus, rather than surrendering to fate, individuals maintain control by making the best of the situation. Empirically, fatalistic determinism and negotiable fate are distinct ($r = 0.10$; Au, 2008).

Second, in the last two decades, cross-cultural researchers have paid considerable attention to *fate control*, which refers to "the belief complex that life events are pre-determined by fatalistic forces, but that people may be able to predict and alter the decree of fate by various means" (Leung et al., 2012, p. 835). That is, fate control consists of two dimensions: fatalistic determinism and fate alterability (Leung et al., 2012). Negotiable fate is similar to fate alterability, which posits that personal actions can potentially alter one's fate (Au et al., 2012), but fate alterability includes a belief in the predictability of one's fate *and* that one's luck or fate can be improved. In contrast, negotiable fate explicitly identifies the strategy of making the best of available resources as the means for improving one's fate, and without regard to the predictability of outcomes. Indeed, the two prototypical negotiable fate proverbs that introduce our manuscript make it clear that individuals must do the best they can, but fate ultimately determines success or failure. Another distinction is that, whereas fate control captures a pan-cultural belief (Bond, 2009), negotiable fate is rooted firmly in Chinese values. Therefore, our focus on negotiable fate supplements previous work (Bond, 2009; Leung et al., 2002, 2012). Our data from Chinese undergraduates and professionals provide empirical support on the conceptual distinction between fate control and negotiable fate ($-0.07 < rs < -0.02$, $ps > 0.46$).

Third, *locus of control* is a popular perceived control construct (Rotter, 1966) that differentiates between individuals with high (internal) versus low (external) locus of control. To elaborate, individuals who have high *internal* locus of control believe that personal actions control outcomes; those who have high *external* locus of control believe that external forces determine outcomes. Two Chinese proverbs capture conceptualizations of internal locus of control: "富贵本无根, 尽从勤里得" (Wealth and fortune are not pre-determined; they depend on your actions); "天工人可代, 人工天不如" (Your actions determine what fate gives you; fate cannot give you what you accomplish through your actions). Internal locus of control and negotiable fate share in common the belief that personal actions can alter outcomes, but they prescribe different *approaches*. That is, from the perspective of internal locus of control, individuals' actions solely determine outcomes (unencumbered by external factors). By way of contrast, from the perspective of negotiable fate, some environmental aspects are uncontrollable, but individuals can still make the best of their situation to attain their goals. Thus, from this perspective, each set of circumstances has various possible outcomes: the ends can be controlled *without* controlling the means (Sarasvathy, 2001). In rapidly changing contexts, appropriate solutions are unknown. Rather than fixate on particular solutions and attempt to control the means to attain them, beliefs in negotiable fate promote an alternative strategy through the joint causality model: acknowledging the possibility of numerous but unknown appropriate solutions. In short, by being cognizant of uncontrollable aspects, beliefs in negotiable fate draw attention to what is controllable. Data from a Chinese sample support the conceptual distinction between internal locus of control and negotiable fate; the two constructs are only moderately correlated ($r = 0.25$, $p < 0.01$; Au, 2008).

In sum, negotiable fate is related to, but distinct from, established constructs of fate beliefs and perceived control. Negotiable fate is unique in its representation of joint causality while accepting the unpredictability of outcomes. Furthermore, Chinese proverbs offer insight into Chinese cultural wisdom regarding negotiable fate, a belief which encourages persistence and resilience while individuals contend with uncontrollable external factors. We recognize that these proverbs reflect historically developed negotiable fate for navigating uncontrollable external factors. Thus, to apply the belief as a motivator for executives in modern society, we draw on the similar logic between negotiable fate and effectuation processes (Sarasvathy, 2001).

2.2. Negotiable fate logic and effectuation processes

In developing our hypotheses concerning the relationship of negotiable fate and entrepreneurial orientation, we considered the conceptual distinction between causation and effectuation processes (Sarasvathy, 2001). Causation processes "take a particular effect as a given, and focus on selecting between (different) means to create that effect" (Sarasvathy, 2001, p. 245); effectuation processes "take *a set of means* as given, and focus on selecting possible *effects* that can be created with that set of means" (Sarasvathy, 2001, p. 245). Thus, the two processes allude to divergent conceptions of control. Causation processes *select* the appropriate means to produce a pre-determined effect. In contrast, effectuation processes govern the strategic use of available resources. Thus, whereas causation processes view securing the appropriate means as the way to control the ends, the effectuation perspective emphasizes strategic utilization of available resources, and with the understanding that the ends cannot be predicted. This underlying model of control (i.e., non-predictive means-focused) (Sarasvathy, 2001) is aligned with the negotiable fate logic of accepting the unchangeable influences of fate on outcomes, and focusing on what is controllable by making the best of available resources.

Sarasvathy (2001) contends that the orientation of top decision-maker towards causation versus effectuation depends on environmental conditions. That is, causation is more relevant in stable contexts where appropriate solutions can be predicted, and attendant strategies can then be selected to attain the desired goal. In contrast, for dynamic and unpredictable environments where market solutions cannot be predicted, effectuation processes are required to exploit available contingencies and to create and control the future (Sarasvathy, 2001). Scholars have argued that, in uncertain environments, the use of effectuation processes is appropriate for both new ventures and established firms (Wiltbank, Dew, Read, & Sarasvathy, 2006).

Given the uncertainty and turbulence of China's economy and the empirical evidence showing that such contexts call for effectuation, effectuation processes are likely to support the high entrepreneurial orientation of Chinese firms. Entrepreneurial orientation is a firm-level strategic stance characterized by innovation, proactivity, and risk-taking (Covin & Slevin, 1989; Miller, 1983). Effectuation processes involve multiple firm-level strategies, including keeping affordable losses in mind by innovating with available resources, and using flexibility and experimentation to create innovative products or markets (Chandler, DeTienne, McKelvie, & Mumford, 2011; Perry, Chandler, & Markova, 2012). Thus, effectuation processes create outcomes in uncertain environments that support strong firm-level entrepreneurial orientation goals. Drawing on the similarities in the perspective of control between effectuation processes and negotiable fate logic (i.e., non-predictive means-focused), we propose:

Hypothesis 1. Chinese executives' beliefs in negotiable fate will be positively associated with their firms' entrepreneurial orientation.

2.3. The moderating effect of environmental dynamism

We posit that negotiable fate beliefs have *context-specific* relevance and benefits: they should more strongly (less strongly) predict firm-level entrepreneurial orientation in more turbulent (less turbulent) environments. However, the underlying theoretical rationale has yet to receive direct support, so we include environmental dynamism as a within-culture moderator. This presents a stringent test of our theory because we propose that even within China's uncertain and turbulent economy, executives' personal experiences of uncertainty will vary as the result of environmental dynamism. A highly dynamic environment features rapidly changing markets in which consumer demands are unpredictable and unsystematic (Wijbenga & van Witteloostuijn, 2007). In contrast, a non-dynamic environment features relatively stable markets and predictable consumer demands (Dess & Beard, 1984).

We propose that Chinese executives operating in highly dynamic environments face greater uncertainty than those operating in stable environments. Specifically, in highly dynamic markets, where the rapidly changing landscape provides numerous possibilities for meeting consumer demands, negotiable fate should have greater benefits. In these contexts, executives know they cannot predict the future, and must not be fixated on using all their resources to attain particular goals (Sarasvathy, 1998, 2001). Instead, with numerous opportunities to create new products, services, and markets, executives can maintain control by making the most of available resources. By way of contrast, stable markets offer fewer opportunities for innovation, and ends-means linkages are more predictable. Under these conditions, innovation success can be achieved by predicting consumer demands and choosing the appropriate means to satisfying them (Sarasvathy, 1998). Therefore, we identify environmental dynamism as a within-culture contingent factor that moderates the relationship between negotiable fate and entrepreneurial orientation.

Hypothesis 2. Environmental dynamism will moderate the relationship between Chinese executives' beliefs in negotiable fate and their firms' entrepreneurial orientation; under higher (lower) environmental dynamism, the relationship will be stronger (weaker).

2.4. Negotiable fate, entrepreneurial orientation, and firm performance

In their meta-analytic review of research on entrepreneurial orientation and business performance, Rauch et al. (2009) find that this relationship is primarily positive and robust across cultures. More recent empirical findings generally support this relationship for businesses in China (Li & Atuahene-Gima, 2001; Liu, 2009; Liu, Liu, & Jiang, 2013; Xie & Gao, 2013). Most important, entrepreneurial orientation within the Chinese context appears to promote firm performance through experiential learning (Zhao, Li, Lee, & Chen, 2011), which refers to developing knowledge through experimentation by leveraging on available resources. Acquiring experiential knowledge is less resource intensive and more likely to yield productive outcomes (Dess et al., 2003; Zhou, Yim, & Tse, 2005) because it provides a unique and inimitable competitive edge (Barney, 1991; Lynn, Skov, & Abel, 1999), which cannot be gained solely through external knowledge. The strategy of experiential learning is consistent with negotiable fate logic (i.e., making the most of available resources) and particularly prevalent among entrepreneurially oriented firms in transitional economies (Dess et al., 2003; Keil, 2004; Schildt, Maula, & Keil, 2005). Based on these findings, we propose that Chinese executives' beliefs in negotiable fate initiate the use of available resources to create opportunities, thereby heightening the entrepreneurial orientation and positively predicting firm performance.

Hypothesis 3. Entrepreneurial orientation will be positively associated with firm performance, indicated by firm innovation (Hypothesis 3a) and financial performance (Hypothesis 3b).

Hypothesis 4. Chinese executives' beliefs in negotiable fate will have significant indirect effects on firm innovation (Hypothesis 4a) and financial performance (Hypothesis 4b) through entrepreneurial orientation.

2.5. The moderated mediation model

As postulated, Chinese executives' beliefs in negotiable fate should be more strongly related to entrepreneurial orientation in dynamic environments. In turn, heightened entrepreneurial orientation should strengthen firm performance. Thus, we expect environmental dynamism to have a first-stage moderation effect on negotiable fate beliefs' indirect effects on firm performance, via entrepreneurial orientation (Fig. 2). The moderated-mediation hypothesis is a summary of Hypotheses 1–4:

Hypothesis 5. Environmental dynamism will moderate the indirect effects of Chinese executives' beliefs in negotiable fate on two indices of firm performance (innovation performance, Hypothesis 5a; financial performance, Hypothesis 5b), via entrepreneurial orientation. These indirect effects will be stronger (weaker) when environmental dynamism is high (low).

2.6. Research overview

To test our hypotheses, we conducted two cross-lagged field studies using measures well-validated in previous research. Study

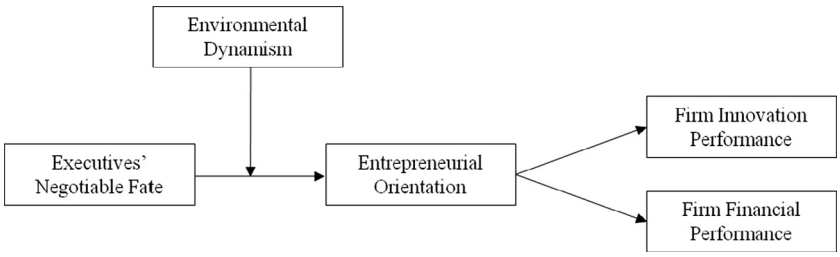

Fig. 2. The theorized moderated-mediation model.

1 was a test of Hypothesis 1: whether Chinese executives' beliefs in negotiable fate positively predict entrepreneurial orientation, with internal locus of control as a control variable. Study 2 replicated Study 1 with a different sample of Chinese executives and a wider range of control variables, including core self-evaluations (i.e., internal locus of control, self-efficacy, self-esteem, and neuroticism) and fatalistic determinism. More important, we tested the entire moderated-mediation model presented in Fig. 2.

3. Pilot study

We have argued that negotiable fate is found in Chinese proverbs, which mirrors deep Chinese collective wisdom. In developing the original measure, Au (2008) selected relevant proverbs and adapted the phrasing. This was done to ensure that agreement to the statements captured only the endorsement of negotiable fate, and that familiarity with the proverbs would not affect the responses. To provide empirical support for the construct validity of our revised six-item negotiable fate measure, we conducted a pilot study to test whether it captures negotiable fate as presented in Chinese proverbs.

3.1. Participants

Following prior research (Chua, 2013; Liang et al., 2016), we recruited 102 employees from various positions and industries via sojump.com (which is similar to Mechanical Turk in the United States). Among the participants, 46.1% were women; average age was 35.0 years; 44.1% had senior high school degrees; 34.3% had bachelor's degrees; 21.6% had master's degrees or higher. The participants had worked for their current organization for an average of 8.4 years; 42.2% were in manufacturing; 27.5% in service industries; 30.4% in other industries. Participants' jobs also represented diverse sectors: 32.3% in technology; 24.5% in administration; 18.6% in marketing; and 24.5% in other sectors.

3.2. Measures

We adapted the scale originally reported in Au et al. (2012) to assess beliefs in negotiable fate. In our current six-item version, we replaced two items (i.e., "I should cherish each day fate has given me," and "Success comes from both luck and effort") with four items that more clearly capture belief in using personal actions to negotiate with fate for better outcomes (i.e., "Through my actions, I can negotiate with fate and materialize my dreams," "Luck favors those who are diligent", "My efforts can compensate for my fate," and "If I put in the effort to do the best I can, fate will take care of the rest."). We retained two items from Au et al.'s (2012) scale that capture this aspect of negotiation (i.e., "I should deal with what fate has given me to make the best of things," and "When fate does not give me the most favorable situations, I need to make the best of the situations I am given") ($\alpha = 0.73$).

In addition to answering the six-item negotiable fate scale, participants read six proverbs that are prototypical of negotiable fate ($\alpha = 0.73$): 尽人事而听天命 (Do the best you can, and leave the outcome to fate); 人事可以补天公 (Your actions can compensate for your fate); 老天不负苦心人 (Fate will not hinder the success of those who are diligent); 心诚能动天(Good intentions can change fate's mind); 谋事在人, 成事在天 (Actions come from the person, success comes from fate); and 天有无情灾, 人有回天力 (Fate can lead to disasters, but actions can reverse the negative effects). Participants rated the extent of their agreement with the statements of our negotiable fate measure, and with the proverbs, on a 6-point scale (1 = *strongly disagree* to 6 = *strongly agree*).

3.3. Results and discussion

The results indicated that endorsement of our negotiable fate measure was highly correlated with the endorsement of prototypical negotiable fate proverbs, $r = 0.74$, $p < 0.001$. Thus, these findings suggest that our negotiable fate measure adequately captures the concept of negotiable fate presented in the proverbs, and provide evidence of construct validity for our revised six-item negotiable fate measure.

4. Study 1

Study 1 tested the hypothesis that executives' beliefs in negotiable fate positively predict a firm-level strategic stance of entrepreneurial orientation in China's uncertain and turbulent transitional economy. Studies of leadership attributes and entrepreneurial orientation have frequently examined executives' internal locus of control (Rotter, 1966), and a meta-analysis indicated that executives' internal locus of control was positively associated with entrepreneurial orientation (Koenig et al., 2013). Given the robust effects of internal locus of control on entrepreneurial orientation, we wanted to demonstrate that conceptual similarities between internal locus of control and negotiable fate do not explain the effects of negotiable fate on entrepreneurial orientation. To this end, we included Levenson's (1981) internal locus of control measure as a control variable. Per Hypothesis 1, we expect Chinese executives' beliefs in negotiable fate to positively predict entrepreneurial orientation.

4.1. Sample and procedure

We designed and distributed a two-wave survey to executives who were part of the executive master of business administration (EMBA) program at a large university in China. Only members of top management teams (e.g., CEO, VPs) were included, based on criteria outlined by Carpenter, Geletkanycz, and Sanders (2004). The questionnaire administered at Time 1 consisted of the negotiable fate and internal locus of control measures. Of the 320 questionnaires sent, 312 were returned (a response rate of 98%). The Time 2 survey, six weeks later, included the entrepreneurial

orientation measure. As with Time 1, 320 questionnaires were sent out, but only 270 were returned (a response rate of 84%). To encourage candor and guarantee anonymity, the executives did not indicate their names on either survey. We matched the data across the two waves by using e-mail addresses or instant messenger identities.

The sample of matched responses used in our analyses included 189 executives (a final response rate of 59%): 85.2% were men, average age of 40.0 years. On average, these executives had 16.6 years of work experience in their organizations, 11.8 years of tenure in management positions, and 77.8% had bachelor's degrees or higher. Firms' industries were as follows: 19.1% were in manufacturing; 18.5% in finance; 14.8% in real estate; 47.6% in other industries; 30.2% were employed at state-owned enterprises. Given the attrition rate between Time 1 and Time 2, we compared the major characteristics of those who completed both waves of the survey against those who did not, but found no significant differences between the two groups with regard to the measured variables.

4.2. Measures

Unless otherwise indicated, all variables were measured on a six-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*) in both Studies 1 and 2. The original English scales were translated into Chinese using Brislin's (1980) back-translation procedures.

4.2.1. Negotiable fate

We used a six-item version of the scale validated in the pilot study to measure negotiable fate ($\alpha = 0.65$).

4.2.2. Entrepreneurial orientation

Our interest in the intersection of innovativeness, proactiveness, and risk taking led us to use Covin and Slevin's (1989) nine-item, semantic differential measure ($\alpha = 0.74$). Consistent with past research on entrepreneurial orientation, the variable was measured from the executive's perspective (Covin & Slevin, 1989; Smart & Conant, 1994; Wiklund & Shepherd, 2003). For example, "In dealing with its competitors, my firm is very seldom/often the first business to introduce new products/services, administrative techniques, operating technologies, etc." The executives were asked to rate each item on a scale from 1 (*very seldom*) to 6 (*very often*).

4.2.3. Control variables

To establish the incremental contributions of believing in negotiable fate, we controlled for executives' internal locus of control, which should affect entrepreneurial orientation (Koenig et al., 2013). We used Levenson's (1981) eight-item scale ($\alpha = 0.81$); for example, "When I make plans, I am almost certain to make them work."

We included one firm characteristic and three traits of executives that might also have effects on entrepreneurial orientation (Simsek et al., 2010). We controlled for firm ownership (0 = non-state-owned enterprise; 1 = state-owned enterprise) because a firm's entrepreneurial orientation partially depends on firm ownership. State owned enterprises may be less entrepreneurially oriented because they have often been protected from market competition, and have easier access to financing (Tang, Tang, & Cowden, 2016). Further, state owned enterprises' overly bureaucratic environments are likely to stifle innovation and change (Jefferson, Hu, Guan, & Yu, 2003; Li & Tang, 2010; Lioukas, Bourantas, & Papadakis, 1993). We did not include industry as a control variable because we did not have sufficient theory to explain how any given industry might influence firm-level entrepreneurial orientation. We affirm, however, that the presence or absence of industry controls (i.e., manufacturing, finance, real estate, and other industries) does not affect our results.

We also controlled for gender (0 = woman; 1 = man), age (in years), and education (0 = no bachelor's degree; 1 = at least a bachelor's degree). We included executives' genders because women were found to be more risk averse and less aggressive (Eckel & Grossman, 2008). We included executives' ages and education levels because these variables influence risk-taking, innovative, or proactive behavior (Barker & Mueller, 2002; Li & Tang, 2010; Lin, Lin, Song, & Li, 2011; MacCrimmon & Wehrung, 1990). For instance, younger executives are more likely to invest in innovation and take risks (Barker & Mueller, 2002; Vroom & Pahl, 1971). Given the high intercorrelation among executives' age, tenure, and tenure in a management position ($rs > 0.74$), we included only executives' age in our robustness analyses. However, the results remain the same irrespective of which aspect of age or facet of tenure is included as control variables.

4.3. Results and discussion

Table 1 presents the means, standard deviations, and correlations for variables in Study 1. We used confirmatory factor analyses (CFAs) to establish the discriminant validity of negotiable fate, internal locus of control, and entrepreneurial orientation. The entrepreneurial orientation scale included nine items, constituting over-identified variables, especially in small samples such as ours (Little, Cunningham, Shahar, & Widaman, 2002; Williams, Vandenberg, & Edwards, 2009). To improve the ratio of the sample size to the number of estimated parameters, we created item parcels following prior literature (Little et al., 2002; Ou et al., 2014; Williams et al., 2009). The results of CFA tests indicated that three-factor model afforded the best fit for the data ($\chi^2 = 25.62$, $df = 24$, *n.s.*; RMR = 0.04, RMSEA = 0.02, CFI = 0.996, TLI = 0.99). This model was superior to a two-factor model combining negotiable fate and internal locus of control ($\chi^2 = 87.46$, $df = 26$, $p < 0.001$; RMR = 0.07, RMSEA = 0.11, CFI = 0.84, TLI = 0.77; $\Delta\chi^2 = 61.84$, $\Delta df = 2$, $p < 0.001$), and a one-factor model ($\chi^2 = 143.65$, $df = 27$, $p < 0.001$; RMR = 0.10, RMSEA = 0.15, CFI = 0.69, TLI = 0.59; $\Delta\chi^2 = 118.03$, $\Delta df = 3$, $p < 0.001$). Thus, the three constructs in Study 1 were empirically distinct (Coovert & Craiger, 2000; Hu & Bentler, 1999).

We report direct tests of our hypotheses without control variables, and examine the robustness of our findings by incorporating the control variables (Meehl, 1971; Spector & Brannick, 2011). As Table 2 (Model 1) shows, we found negotiable fate to be significantly associated with entrepreneurial orientation ($\beta = 0.17$, $p < 0.05$). Supplementary analyses (Model 2) show that controlling for firm ownership, executive characteristics (i.e., gender, age, and education), and locus of control do not materially alter this result ($\beta = 0.15$, $p = 0.06$). Thus, Study 1 provided support for our hypothesis that beliefs in negotiable fate would be associated with stronger firm-level entrepreneurial orientation among Chinese executives who face uncertainty and turbulence in China's transitional economy.

5. Study 2

We designed Study 2 to extend Study 1 primarily in three ways. First, we replicate our test of the positive association between negotiable fate and entrepreneurial orientation. Second, we examine the hypothesized moderating role of environmental dynamism (Dess & Beard, 1984). This offers a more stringent test of our hypothesis regarding the context-specific benefits and relevance of negotiable fate beliefs. We posit that the relationship between executives' negotiable fate and firm-level entrepreneurial

Table 1
Means, standard deviations, and correlations (Study 1).

Variable	Mean	*SD*	1	2	3	4	5	6
1. Firm ownership	0.30	0.46						
2. Executives' gender	0.85	0.36	0.14*					
3. Executives' age	39.96	5.15	0.18*	0.10				
4. Executives' education	0.78	0.42	0.16*	0.03	0.02			
5. Executives' internal locus of control	4.00	0.77	−0.07	0.02	−0.12	−0.12		
6. Executives' negotiable fate	4.99	0.63	−0.10	0.03	0.05	−0.09	0.33***	
7. Entrepreneurial orientation	3.87	0.72	−0.15*	0.00	−0.13+	−0.12	0.10	0.17*

Notes: $n = 189$. For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 2
Regression results of Study 1: The effect of executives' negotiable fate and entrepreneurial orientation.

Variables	Model 1	Model 2
Firm ownership		−0.10
Executives' gender		0.02
Executives' age		−0.11
Executives' education		−0.08
Executives' internal locus of control		0.02
Executives' negotiable fate	0.17*	0.15+
F	5.33*	2.11+
R^2	0.03	0.07

Notes: $n = 189$. For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college. Standardized regression coefficients are reported.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

orientation will be stronger in dynamic environments. Third, underscoring the importance of the entrepreneurial orientation construct, we demonstrate its practical effects on two indices of firm performance: firm innovation and financial performance. Whereas financial performance gives an overall view, innovation is linked most closely with entrepreneurial orientation. Thus, this study explores whether entrepreneurial orientation has the same positive consequences for firm performance in China's transitional economy observed elsewhere (Rauch et al., 2009).

In sum, Study 2 examines the theorized moderated-mediation model, predicting that the indirect effects of beliefs in negotiable fate on innovation and financial performance, via entrepreneurial orientation, is stronger in dynamic environments. To demonstrate robustness of our effects, we included both perceived and objective measures of these two outcome performance variables (Tang, Tang, Marino, Zhang, & Li, 2008).

5.1. Sample and procedure

The method for Study 2 was similar to that of Study 1. We distributed surveys in two-waves to a different group of executives from an EMBA program at a large university in China. The questionnaire administered at Time 1 included negotiable fate, core self-evaluations, fatalistic determinism, and environmental dynamism measures. Of the 200 questionnaires distributed, 177 were returned (a response rate of 89%). The Time 2 survey was administered six weeks later and included the entrepreneurial orientation, perceived and objective firm innovation, and perceived and objective financial performance measures. Only participants who took part at Time 1 received the Time 2 survey, and 150 of Time 2 questionnaires were returned (a response rate of 85%). To encourage candor and guarantee anonymity, the executives did not indicate their names on either survey. We matched data across the two waves by using student IDs. Selection criteria were the same as in Study 1: only members of the top management team at a company (e.g., CEO, VPs) were included, per guidelines in Carpenter et al. (2004).

The sample of matched responses included 129 executives (a final response rate 65%); 71.3% were men; 84.5% held at least bachelor's degrees. They averaged 41.5 years of age. On average, these executives had 18.1 years of work experience in their organizations, and 12.6 years of tenure in a management position. Firms' industries were as follows: 24.8% were in manufacturing; 14.0% in finance; 10.9% in real estate; 50.4% in other industries; in terms of ownership, 34.1% worked for state-owned enterprises. Given the attrition rate between Time 1 and Time 2, we compared the major characteristics of those who completed both waves of the survey with those who did not and found no significant differences.

5.2. Measures

5.2.1. Negotiable fate

Negotiable fate was assessed using the same six-item scale as Study 1 ($\alpha = 0.69$).

5.2.2. Environmental dynamism

Environmental dynamism was measured using Miller and Friesen's (1983) seven-item scale ($\alpha = 0.74$). Executives assessed the extent to which changes occurred in various aspects of their external environment over the previous five years. For example, "Over the previous five years, market activities of your key competitors have become far less predictable."

5.2.3. Entrepreneurial orientation

Entrepreneurial orientation was assessed using the same measure as in Study 1 ($\alpha = 0.78$).

5.2.4. Firm innovation performance

We gathered both perceived and objective assessments of innovation. To assess perceptions, we used Prajogo and Ahmed's (2006) nine-item innovation scale ($\alpha = 0.91$). Respondents indicated their organizations' success relative to their major competitors', from 1 = *worst in industry* to 5 = *best in industry*. For example: "the level of newness (novelty) of our firm's new products" and "the number of our first-to-market new products." For the objective measure, we used the profit percentage from new products introduced in the current year (Buckley, Clegg, & Wang, 2002; Buckley, Clegg, Wang, & Cross, 2002; Liu & Buck, 2007; Wang & Kafouros, 2009).

As Table 3 shows, perceived and objective firm innovation were strongly correlated ($r = 0.45$, $p < 0.001$).[1]

5.2.5. Firm financial performance

We also gathered both perceived and objective assessments of financial performance. For perceptions, we used the seven-item perception measure adapted from Wang, Tsui, Zhang, and Ma's (2003) firm performance scale ($\alpha = 0.85$). Participants evaluated their firms' performance relative to their competitors' regarding profit, sales growth, and market share from 1 (*very low compared to competitors*) to 6 (*very high compared to competitors*). For the objective measure, we included a widely-used profitability indicator: this year's return on assets (ROA; Carpenter & Sanders, 2002; Roberts & Dowling, 2002). As Table 3 shows, perceived and objective financial performance were significantly correlated ($r = 0.19$, $p < 0.05$).

5.2.6. Control variables

The control variables for firm characteristic (i.e., state ownership) and executives' characteristics (i.e., gender, age, and education) were the same in both studies. However, instead of executives' internal locus of control, we controlled for executives' core self-evaluations and fatalistic determinism in Study 2. Our rationale for including core self-evaluations was twofold: (1) core self-evaluations extend upon internal locus of control by assessing self-efficacy, self-esteem, and neuroticism, in addition to internal locus of control (Judge, Erez, Bono, & Thoresen, 2003; Judge, Locke, & Durham, 1997); and (2) core self-evaluations have been found to account for significant variance in entrepreneurial orientation and firm performance (Simsek et al., 2010). Core self-evaluations were assessed with Judge et al.'s (2003) 12 items measure ($\alpha = 0.80$). For example, "I am confident I get the success I deserve in life." Based on Fig. 1, we consider negotiable fate as conceptually distinct but related to fatalistic determinism. Thus, we also included fatalistic determinism as a control variable, measured with Chaturvedi, Chiu, and Viswanathan (2009) four-item scale ($\alpha = 0.87$). For example, "I cannot change what fate has in store for me."

5.3. Results and discussion

Table 3 presents the means, standard deviations, and correlations of all measured variables in Study 2. As in Study 1, we computed composite indicators for multi-item measures to improve the ratio of the sample size to the number of estimated parameters (Little et al., 2002; Ou et al., 2014; Williams et al., 2009). We then conducted CFAs to establish the discriminant validity of the seven constructs: negotiable fate, core self-evaluations, fatalistic determinism, environmental dynamism, entrepreneurial orientation, perceived firm innovation, and perceived financial performance in Study 2. The results of CFA analyses show that the seven-factor measurement model was the best fit for the data ($\chi^c = 253.10$, $df = 168$, $p < 0.001$; RMR = 0.07, RMSEA = 0.06, CFI = 0.92, TLI = 0.90). The seven factor model fit better than plausible alternative models, including the six-factor model combining negotiable fate and core self-evaluations ($\chi^2 = 307.20$, $df = 174$, $p < 0.001$; RMR = 0.08, RMSEA = 0.08, CFI = 0.87, TLI = 0.84; $\Delta\chi^2 = 54.10$, $\Delta df = 6$, $p < 0.001$), and the six-factor model combining negotiable fate and fatalistic determinism ($\chi^2 = 303.79$, $df = 175$, $p < 0.001$; RMR = 0.07, RMSEA = 0.08, CFI = 0.87, TLI = 0.85; $\Delta\chi^2 = 50.69$, $\Delta df = 6$, $p < 0.001$). Thus, the results suggested that the seven variables included in Study 2 were empirically distinct (Coovert & Craiger, 2000; Hu & Bentler, 1999).

5.3.1. Predicting entrepreneurial orientation from negotiable fate beliefs

Hypothesis 1 proposed that belief in negotiable fate predicts entrepreneurial orientation. We tested this hypothesis by regressing negotiable fate on entrepreneurial orientation (Model 1), and found a significant positive relationship ($\beta = 0.23$, $p < 0.01$). This finding replicates the results of Study 1.

5.3.2. The moderating effect of environmental dynamism

Hypothesis 2 predicted that negotiable fate will foster entrepreneurial orientation more strongly under high environmental dynamism. The results (Model 2) supported the first-stage moderating effect: environmental dynamism significantly moderated the relationship between negotiable fate beliefs and entrepreneurial orientation ($\beta = 0.29$, $p < 0.001$). Following Aiken and West (1991), a simple slopes plot (see Fig. 3) indicated that negotiable fate beliefs significantly predicted entrepreneurship orientation under high ($\beta = 0.73$, $p < 0.01$), but not low environmental dynamism ($\beta = -0.05$, *n.s.*). Table 7 also shows that this difference in relationship under high versus low environmental dynamism was significant ($\Delta\beta = 0.79$, $p < 0.01$). Thus, Study 2 supported Hypothesis 2.

5.3.3. Predicting firm innovation and financial performance from entrepreneurial orientation

Hypothesis 3 predicted that higher entrepreneurial orientation would be associated with stronger innovation (Hypothesis 3a), and financial performance (Hypothesis 3b). As Table 5 shows (Models 3 and 9), entrepreneurial orientation significantly predicted perceived innovation ($\beta = 0.55$, $p < 0.001$) and financial performance ($\beta = 0.37$, $p < 0.001$). Also, the results presented in Table 6 (Models 3 and 9) show that entrepreneurial orientation was also significantly associated with objective innovation ($\beta = 0.41$, $p < 0.001$) and financial performance ($\beta = 0.28$, $p < 0.01$). These results replicate the findings from previous studies on entrepreneurial orientation and firm performance in China (Liu, 2009; Liu et al., 2013; Xie & Gao, 2013), supporting Hypothesis 3.

5.3.4. The indirect effects of negotiable fate beliefs on firm performance via entrepreneurial orientation

Hypothesis 4 predicted that entrepreneurial orientation would mediate the relationship of beliefs in negotiable fate with innovation (Hypothesis 4a) and financial performance (Hypothesis 4b). We already demonstrated that negotiable fate beliefs were related to entrepreneurial orientation (Hypothesis 1), and that entrepreneurial orientation predicted innovation and financial performance (Hypothesis 3). To test the mediation effects, we then used RMediation (Tofighi & MacKinnon, 2011), an emerging method (Rodell, 2013; Wu, Liu, Kwan, & Lee, 2016) that is more powerful than traditional mediation tests (e.g., the Sobel test) in several respects (e.g., estimating Type I error rates more accurately; MacKinnon, Fritz, Williams, & Lockwood, 2007; MacKinnon, Lockwood, & Williams, 2004). For each model, 1000 bootstrap samples were generated, and a bias-corrected 95% confidence interval (CI) was constructed around the indirect effect with entrepreneurial orientation as a mediator. Entrepreneurial orientation had a significant indirect effect on innovation (for the perceived measure: $\beta = 0.17$, $p < 0.05$, 95% confidence interval = [0.05, 0.32]; for the objective measure: $\beta = 0.20$, $p < 0.05$, 95% confidence interval = [0.05, 0.40]); and a significant indirect effect on financial performance (for the perceived measure: $\beta = 0.12$, $p < 0.05$, 95% confidence interval = [0.03, 0.24]; for the objective measure: $\beta = 0.11$, $p < 0.05$, 95% confidence interval = [0.02, 0.23]). These findings supported Hypothesis 4.

[1] Missing values reduced the sample size for the objective firm innovation and financial performance to 117. To assess possible respondent bias, we compared responses to the measured variables from the final sample ($n = 117$) against the entire sample ($n = 129$) and found no significant differences.

Table 3
Means, standard deviations, and correlations (Study 2).

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Firm ownership	0.34	0.48												
2. Executives' gender	0.71	0.45	0.13											
3. Executives' age	41.50	6.26	0.22*	0.26**										
4. Executives' education	0.84	0.36	0.13	−0.08	−0.08									
5. Executives' fatalism	2.56	1.09	0.16+	−0.16+	0.12	0.05								
6. Executives' core self-evaluations	4.35	0.60	0.02	0.08	0.03	0.06	−0.17+							
7. Executives' negotiable fate	5.13	0.60	−0.15+	−0.04	−0.02	−0.01	−0.13	0.13						
8. Environmental dynamism	3.86	0.74	0.07	−0.04	0.01	0.20*	0.07	−0.18*	0.09					
9. Entrepreneurial orientation	3.90	0.77	−0.05	0.13	0.06	−0.01	−0.14	0.00	0.23**	0.05				
10. Firm innovation performance (perceptive)	3.74	0.82	−0.12	0.01	−0.09	−0.01	−0.26**	0.15+	0.08	−0.06	0.53***			
11. Firm innovation performance (objective)	2.72	1.28	−0.20*	−0.14	−0.06	0.03	−0.16+	0.21*	0.12	−0.04	0.40***	0.45***		
12. Firm financial performance (perceptive)	4.00	0.84	0.00	−0.02	−0.04	0.02	−0.21*	0.29***	0.14	−0.01	0.32***	0.53***	0.28**	
13. Firm financial performance (objective)	2.50	0.96	−0.26**	−0.19*	−0.07	−0.03	−0.07	0.14	0.03	−0.16+	0.26**	0.25**	0.36***	0.19*

Notes: $n = 129$ for all variables except firm innovation performance (objective) and firm financial performance (objective); $n = 117$ for correlations with firm innovation performance (objective) and firm financial performance (objective). For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

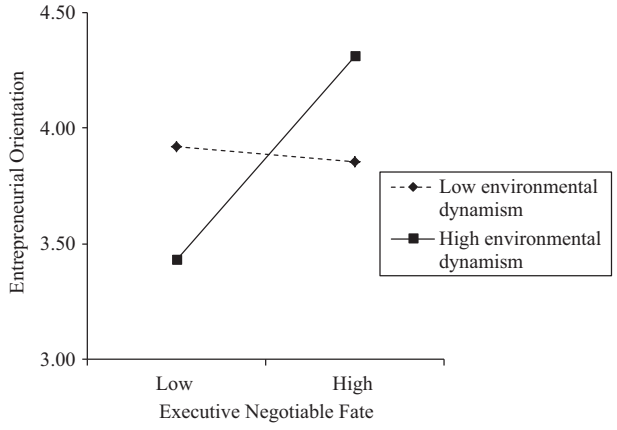

Fig. 3. Interactive effect of executives' negotiable fate and environmental dynamism on entrepreneurial orientation in Study 2.

5.3.5. The moderated indirect effects by environmental dynamism

After establishing that entrepreneurial orientation mediated the relationship of beliefs in negotiable fate with firm innovation and financial performance, we tested the theorized moderated-mediation model presented in Fig. 2. Hypothesis 5 predicted stronger mediation under dynamic environments. We tested Hypothesis 5 using the moderated path analysis approach (Edwards & Lambert, 2007). The results reported above, for testing Hypothesis 2, supported the first-stage moderating effects on the relationship between negotiable fate beliefs and entrepreneurial orientation. Further path analyses were conducted to test the moderating effects of environmental dynamism on the indirect effects. Table 7 shows that negotiable fate beliefs had a significant indirect effect on innovation performance, via entrepreneurial orientation, under high environmental dynamism (for the perceived measure: $\beta = 0.32$, $p < 0.01$; for the objective measure: $\beta = 0.43$, $p < 0.05$), but not under low environmental dynamism (for the perceived

Table 4
Regression results of Study 2: The effect of executives' negotiable fate on entrepreneurial orientation.

Variables	Entrepreneurial orientation			
	Model 1	Model 2	Model 3	Model 4
Firm ownership			−0.03	0.00
Executives' gender			0.11	0.11
Executives' age			0.06	0.07
Executives' education			0.02	0.03
Executives' fatalism			−0.11	−0.10
Executives' core self-evaluations			−0.06	−0.02
Executives' core self-evaluations × Environmental dynamism				0.04
Executives' negotiable fate	0.23**	0.26**	0.23*	0.26**
Environmental dynamism		−0.01		−0.01
Executives' negotiable fate × Environmental dynamism		0.29***		0.29**
F	7.13**	6.51***	1.65	2.38*
R^2	0.05	0.14	0.09	0.17
ΔR^2		0.09***		0.08**

Notes: $n = 129$. For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college. Standardized regression coefficients are reported.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 5
Regression results of Study 2: The effect of executives' negotiable fate on firm performance (perceptive).

Variables	Firm innovation performance (perceptive)						Firm financial performance (perceptive)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Firm ownership				−0.07	−0.06	−0.06				0.05	0.05	0.05
Executives' gender				−0.01	−0.02	−0.08				−0.06	−0.06	−0.10
Executives' age				−0.04	−0.04	−0.07				−0.02	−0.02	−0.05
Executives' education				0.01	0.02	0.01				−0.00	−0.02	−0.03
Executives' fatalism				−0.22*	−0.22*	−0.16*				−0.17+	−0.17+	−0.13
Executives' core self-evaluations				0.11	0.12	0.13+				0.26**	0.26**	0.26**
Executives' core self-evaluations × Environmental dynamism					0.04	0.02					0.01	−0.01
Executives' negotiable fate	0.08	0.10	−0.04	0.02	0.05	−0.09	0.14	0.13	0.04	0.09	0.08	−0.01
Environmental dynamism		−0.09	−0.08		−0.05	−0.04		−0.01	−0.01		0.05	0.05
Executives' negotiable fate × Environmental dynamism		0.14	−0.02		0.15	−0.01		−0.11	−0.21*		−0.06	−0.17+
Entrepreneurial orientation			0.55***			0.54***			0.37***			0.36***
F	0.78	1.26	12.53***	1.69	1.51	5.90***	2.69	1.40	5.43***	2.52	1.80	3.41***
R^2	0.01	0.03	0.29	0.09	0.11	0.36	0.02	0.03	0.15	0.13	0.13	0.24
ΔR^2		0.02	0.26***		0.02	0.25***		0.01	0.12***		0.00	0.11***

Notes: $n = 129$. For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college. Standardized regression coefficients are reported.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 6
Regression results of Study 2: The effect of executives' negotiable fate on firm performance (objective).

Variables	Firm innovation performance (objective)						Firm financial performance (objective)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Firm ownership				−0.18+	−0.17+	−0.16+				−0.25**	−0.24*	−0.23*
Executives' gender				−0.17+	−0.17+	−0.23*				−0.20*	−0.20*	−0.25**
Executives' age				0.04	0.04	−0.00				0.04	0.04	0.01
Executives' education				0.03	0.03	0.01				0.04	0.07	0.05
Executives' fatalism				−0.13	−0.13	−0.08				−0.06	−0.05	−0.01
Executives' core self-evaluations				0.20*	0.21*	0.22*				0.15	0.12	0.13
Executives' core self-evaluations × Environmental dynamism					0.01	−0.02					0.06	0.04
Executives' negotiable fate	0.12	0.13	0.02	0.07	0.07	−0.04	0.03	0.04	−0.04	−0.03	−0.00	−0.09
Environmental dynamism		−0.05	−0.05		0.00	0.00		−0.16+	−0.16+		−0.13	−0.13
Executives' negotiable fate × Environmental dynamism		0.04	−0.07		0.05	−0.07		0.03	−0.05		0.03	−0.06
Entrepreneurial orientation			0.41***			0.44***			0.28**			0.33***
F	1.76	0.73	5.55***	2.29*	1.60	3.90***	0.08	1.05	3.03*	2.27*	1.82+	2.89**
R^2	0.02	0.02	0.17	0.13	0.13	0.29	0.00	0.03	0.10	0.13	0.15	0.23
ΔR^2		0.00	0.15***		0.00	0.16***		0.03	0.07**		0.02	0.08***

Notes: $n = 117$. For firm ownership, 0 = non–state-owned enterprise, 1 = state-owned enterprise; for executives' gender, 0 = woman, 1 = man; for executives' education, 0 = lower than college, 1 = college, or higher than college. Standardized regression coefficients are reported.
+ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

measure: $\beta = -0.04$, *n.s.*; for the objective measure: $\beta = -0.04$, *n.s.*). In addition, the differences in the magnitude of indirect effects for high and low environmental dynamism were significant (for the perceived measure: $\Delta\beta = 0.36$, $p < 0.05$; for the objective measure: $\Delta\beta = 0.47$, $p < 0.05$). Thus, Hypothesis 5a was supported.

Table 8 shows that negotiable fate beliefs had a significant indirect effect on financial performance, via entrepreneurial orientation, under high environmental dynamism (for the perceived measure: $\beta = 0.36$, $p < 0.01$; for the objective measure: $\beta = 0.31$, $p < 0.05$), but not under low environmental dynamism (for the perceived measure: $\beta = -0.02$, *n.s.*; for the objective measure: $\beta = -0.02$, *n.s.*). In addition, differences in the magnitude of indirect effects for high and low environmental dynamism were significant (for the perceived measure: $\Delta\beta = 0.38$, $p < 0.01$; for the objective measure: $\Delta\beta = 0.32$, $p < 0.05$). Thus, Hypothesis 5b was supported.

Overall, the results support our moderated-mediation model. Our analyses demonstrated that entrepreneurial orientation mediates the link between negotiable fate beliefs and innovation and financial performance. Furthermore, the mediation model was stronger when the environment was dynamic than stable, highlighting that negotiable fate beliefs were particularly beneficial under uncertain environments.

Table 7
Results of the moderated path analyses in Study 2 for firm innovation performance.

Moderator variable: Environmental dynamism	Executives' negotiable fate (X) → Entrepreneurial orientation (M) → Firm innovation performance (perceptive) (Y_1)				
	Stage		Effect		
	First P_{MX}	Second P_{Y1M}	Direct P_{Y1X}	Indirect $P_{MX} \times P_{Y1M}$	Total
Low environmental dynamism (−1 s.d.)	−0.05	0.66**	−0.02	−0.04	−0.06
High environmental dynamism (+1 s.d.)	0.73**	0.44**	0.00	0.32**	0.33*
Differences between low and high	0.79**	−0.22	0.03	0.36*	0.38^{+}
Moderator variable: Environmental dynamism	Executives' negotiable fate (X) → Entrepreneurial orientation (M) → Firm innovation performance (objective) (Y_1)				
	Stage		Effect		
	First P_{MX}	Second P_{Y1M}	Direct P_{Y1X}	Indirect $P_{MX} \times P_{Y1M}$	Total
Low environmental dynamism (−1 s.d.)	−0.05	0.72**	0.22	−0.04	0.18
High environmental dynamism (+1 s.d.)	0.73**	0.59*	−0.06	0.43*	0.37
Differences between low and high	0.79**	−0.13	−0.28	0.47*	0.19

$^{+}$ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

Table 8
Results of the moderated path analyses in Study 2 for firm financial performance.

Moderator variable: Environmental dynamism	Executives' negotiable fate (X) → Entrepreneurial orientation (M) → Firm financial performance (perceptive) (Y_2)				
	Stage		Effect		
	First P_{MX}	Second P_{Y2M}	Direct P_{Y2X}	Indirect $P_{MX} \times P_{Y2M}$	Total
Low environmental dynamism (−1 s.d.)	−0.05	0.35*	0.36	−0.02	0.34*
High environmental dynamism (+1 s.d.)	0.73**	0.49**	−0.33	0.36**	0.03
Differences between low and high	0.79**	0.15	−0.69*	0.38**	−0.31
Moderator variable: Environmental dynamism	Executives' negotiable fate (X) → Entrepreneurial orientation (M) → Firm financial performance (objective) (Y_2)				
	Stage		Effect		
	First P_{MX}	Second P_{Y2M}	Direct P_{Y2X}	Indirect $P_{MX} \times P_{Y2M}$	Total
Low environmental dynamism (−1 s.d.)	−0.05	0.32^{+}	0.01	−0.02	−0.01
High environmental dynamism (+1 s.d.)	0.73**	0.42*	−0.18	0.31*	0.13
Differences between low and high	0.79**	0.10	−0.19	0.32*	0.13

$^{+}$ $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

5.4. Supplemental analyses

5.4.1. Robustness analyses with firm and executives' characteristics

As for Study 1, we conducted not only direct tests of our hypotheses along but also robustness analyses (Meehl, 1971; Spector & Brannick, 2011). Consistent with Study 1, we used the control variables of firm ownership, executives' gender, age, and education. Again, as with Study 1, we affirm that the presence or absence of industry controls did not affect our conclusions.

To further establish the unique contributions of negotiable fate, we included an expanded set of variables related to negotiable fate and entrepreneurial orientation; and thus, instead of executives' internal locus of control, we included core self-evaluations and fatalistic determinism in Study 2. Findings reported in Tables 4–6 show that inclusion of these variables did not significantly alter our conclusions. We also found that inclusion of these control variables did not affect the bootstrapping results for the indirect effects of negotiable fate on firm outcomes via entrepreneurial orientation, or the results for the moderated path analyses.

5.4.2. Robustness analyses by controlling for objective performance variables

To address potential problems of single-source bias, we examined whether responses to one performance indicator had contagion effects on another performance indicator. In practical terms, we used alternative performance indicator as marker variables to capture and partial out method-specific effects. In these robustness analyses, we controlled for: (1) objective firm innovation (financial) performance in models predicting perceived firm innovation (financial) performance; and (2) the objective firm innovation (financial) performance when predicting objective firm financial (innovation) performance. These supplemental analyses led to the same conclusions as those reported in our main text. Thus, common method variance is unlikely to entirely account for the observed effects.

5.4.3. Testing alternative models

We examined the fit of two alternative moderated-mediation models by re-ordering variables in the mediation chain. We first tested whether negotiable fate would *directly* predict firm performance, especially under dynamic environments (i.e., first-stage

moderation), and stronger firm performance would then predict higher entrepreneurial orientation. However, the results indicated that environmental dynamism did not moderate the relationship between negotiable fate and firm outcomes, except for the marginally significant perceived measure of innovation. Thus, the data did not support this first alternative model.

We also tested whether working in a firm with higher entrepreneurial orientation predicts stronger negotiable fate beliefs, and in turn, stronger negotiable fate beliefs predict stronger firm performance, especially under dynamic environments (i.e., second-stage moderation). Negotiable fate did not significantly predict firm performance in this alternative model, after controlling for entrepreneurial orientation. Therefore, we cannot conclude that executives' negotiable fate beliefs mediated the relationship between entrepreneurial orientation and firm performance. This finding suggested that our data did not adequately fit this second alternative model either. In sum, our supplemental analyses suggested that the data were more consistent with our theorized causal ordering than plausible alternative models.

6. General discussion

Traditional Western theories on fate beliefs and control associate a belief in fate with passivity, withdrawal, and depression (Cheng et al., 2013). In light of what is unique about the Chinese context, we contend that research which simply applies of slightly modifies Western theory "incrementally contributes to the existing knowledge base, but fails to provide innovative ideas or novel insight about management practices within Chinese or Asian contexts" (Tsui, 2012, p. 29). To more fully capture the culturally rooted nuances of collective Chinese wisdom, we introduce the concept of *negotiable fate* (Au, 2008; Au et al., 2011, 2012; Chiu et al., 2012) and provide novel insights into organizational behavior in China.

We examined how beliefs in negotiable fate fostered entrepreneurial orientation across two multi-wave field studies. In Study 1, we found that negotiable fate beliefs are significantly associated with entrepreneurial orientation. In Study 2, we not only replicated this finding but also established that entrepreneurial orientation predicts greater firm innovation and financial success, and that the indirect effects on innovation and financial performance through entrepreneurial orientation are stronger in dynamic than stable environments. Overall, the findings support our theorized moderated mediation model.

6.1. Implications of negotiable fate for organizational behavior scholarship beyond China

Negotiable fate was developed to identify Chinese collective wisdom that motivates Chinese people to persist despite their fatalistic beliefs that external environmental forces impact their outcomes (Au, 2008; Au et al., 2011, 2012). Thus, we propose that the relevance and benefits of negotiable fate are context-specific. In Study 2, we provided evidence for this proposition: Chinese executives' beliefs in negotiable fate are especially predictive of firm-level entrepreneurial orientation when the environment is uncertain and dynamic.

The joint causality model of negotiable fate appears to be beneficial not only in contexts of constraint (Au, 2008; Au et al., 2012), but also in context of uncertainty (i.e., Study 2). Thus, whereas constraints impose boundaries on strategic means, uncertainty casts doubt on whether personal actions will yield desired outcomes. For these two circumstances, beliefs in negotiable fate preserve the space for individuals to make the most of available means to attain desired outcomes.

Despite the cultural underpinnings of negotiable fate, we would not be surprised for similar beliefs to emerge in other cultural contexts. Proverbs capture collective wisdom and allow their transmissions across generations, but their applicability in the contemporary society determines which proverbs are retained and imparted as cultural wisdom evolves over time. Chiu and Hong (2005) likened cultural knowledge to tools – new tools emerge to replace old tools that no longer serve the needs of the cultural group. Therefore, although negotiable fate originates from Chinese proverbs, its relevance for modern society maintains its benefits as cultural wisdom.

With this logic in mind, it is possible that beliefs about the importance of making the best of available resources may be observed in other contexts that are characterized by constraint or uncertainty. These beliefs may take different forms or manifest in different psychological phenomena, but the underlying similarity in non-predictive means-focused control may be observed. Thus, evidence for the context-specific benefits of negotiable fate opens a door for exploring related beliefs from other cultural settings that help individuals survive and strive in environments where the impact of external factors are undeniable.

6.2. Using negotiable fate to foster cultural change within organizations

The concept of negotiable fate rests on the idea of making the best of circumstances, and such a belief seems unlikely to cause social change. However, to understand the potential for negotiable fate beliefs to foster within-organization long-term change, we might consider the mindset of *tempered radicals* (Meyerson, 2001; Meyerson & Scully, 1995)—individuals who are deeply committed to their organizations, but view "the values and beliefs associated with their professional identity as violating the values and beliefs associated with their personal identity" (Meyerson & Scully, 1995, p. 587).

Thus, tempered radicals' personal and professional identities are in conflict. To resolve the conflict, they gently and continually push against prevailing norms to cause evolutionary change. These individuals know where they will encounter resistance, and identify incremental but meaningful ways to make lasting changes within those boundaries. Knowing that drastic actions might backfire, they work with the boundaries imposed by organizational values and beliefs. Searching for ways to attain desired outcomes within the boundaries of external constraints resonates with the belief in negotiable fate. Thus, organizations desiring cultural change should identify employees who have low bi-cultural identity integration (Benet-Martínez, Leu, Lee, & Morris, 2002), and thus may desire to slowly and steadily align the organizational values and beliefs with their own. However, a strong belief in negotiable fate may also be beneficial to ensure that the change is evolutionary rather than drastic.

6.3. The intersection of negotiable fate and malleable fate

Future research is needed to systematically distinguish malleable fate from negotiable fate. The concept of *malleable fate* – which refers to the belief that one can change one's fate – was developed in the United States to understand consumer behavior (Kim, Kulow, & Kramer, 2014), and is not rooted in Chinese collective wisdom. We agree with Kim et al. (2014), who argued that malleable fate is more expansive than negotiable fate. To better understand the distinctions, we must analyze contrasting viewpoints: Those who believe that fate is changeable (i.e., high in malleable fate) can (1) believe that their personal actions can remove constraints and obstacles and thus change their fate (i.e., *internal locus of control*); or (2) believe they must work with the boundaries

imposed by fate, and personally act to attain the best possible outcome within the limitations (i.e., *negotiable fate*).

Therefore, strong beliefs in malleable fate and negotiable fate both reject fatalistic determinism, but negotiable fate describes *how* fate can be changed. In light of recently published empirical showing that the two constructs are distinct ($r = -0.08$, *n.s.*) (Kim et al., 2014), it will be important to examine the unique benefits of negotiable fate versus malleable fate in different contexts. We argue that whereas a belief in malleable fate encourages agentic action for individuals who have the freedom to choose between altering *or* working with external factors to attain their goals, a belief in negotiable fate may be particularly helpful to those who have no choice but to make the most of the situation.

6.4. Managerial implications

Our findings have important practical implications. First, for organizations in dynamic environments, firm-level entrepreneurial orientation can be fostered by selecting executives who believe in negotiable fate. In a turbulent environment, enhancing innovation (and consequently, firm performance) requires exploration and experimentation (Sarasvathy, 2001; Wiltbank, Read, Dew, & Sarasvathy, 2009). We maintain that beliefs in negotiable fate orient executives towards this approach in two ways—by awareness of how difficult it is to predict appropriate solutions and the likelihood of experiencing failure, and by increasing openness to innovations that arise through the process of trial and error and enable more effective use of available resources.

Second, beyond strategic decisions regarding innovation, executives with strong beliefs in negotiable fate may provide other insights in the face of uncertainty. Given their orientation to making the most of available resources, these executives can identify factors beyond the firm's control and offer multiple possible solutions within the boundaries imposed by these external factors. This approach is likely to have a trickle-down effect by boosting morale within the company during uncertain times because it provides the firm with a sense of control despite the unpredictability of the future. Thus, under such circumstances, top management teams may rely more heavily on executives who believe in negotiable fate, and as a result, these executives will have greater impact on the strategic directions of the firm.

Last, from a training perspective, our findings highlight the potential benefit of efforts to engender negotiable fate beliefs in executives, especially when the environment is dynamic. As mentioned earlier, beliefs in negotiable fate can be activated in European-Americans for agentic benefits, even though they do not generally hold this belief (Au et al., 2011). Thus, training executives to hold a joint causality model can help executives make the best use of available resources rather than being fixated on particular outcomes.

6.5. Limitations and future research directions

6.5.1. Effectuation processes

In developing our hypothesis linking negotiable fate and entrepreneurial orientation, we acknowledged important similarities in the underlying logic of negotiable fate and effectuation processes (i.e., non-predictive means-focused control). In both cases, decision makers' attention is focused on making the most of available resources and controlling outcomes by creating opportunities. Our studies demonstrate that negotiable fate logic predicts higher entrepreneurial orientation, and in turn, stronger firm innovation and financial performance. This indirect effect is especially strong under dynamic environments. Our findings are consistent with the theory that means-focused control is particularly effective in uncertain environments (Sarasvathy, 2001; Wiltbank et al., 2009).

Sarasvathy's (2001) theory proposes that this logic (i.e., non-predictive means-focused control) fosters different effectuation *strategies* (i.e., use available means and resources to develop different options, experiment flexibly with different ideas and allow ideas to evolve as opportunities arise, keep affordable loses in mind by using available resources, and use pre-commitments to lower uncertainty). However, the measures of these four effectuation strategies do not coalesce to form one latent variable (Chandler et al., 2011). This suggests that the underlying control logic may be more strongly related to some, but not all, of the strategies. We maintain that research on negotiable fate may facilitate further refinement of effectuation theory by clarifying: (1) which effectuation strategies are more closely tied to proposed control logic; and (2) whether these particular strategies predict entrepreneurial success.

In our studies, we drew upon the shared logic of negotiable fate and effectuation processes (i.e., non-predictive means-focused control) to address the role of negotiable fate in fostering entrepreneurial orientation in established firms. In contrast, most conceptual and empirical research on effectuation processes has addressed how opportunities are developed for establishing new firms or markets (Sarasvathy, Dew, Velamuri, & Venkataraman, 2003). To connect negotiable fate to the literatures on effectuation and entrepreneurship, it will be important to examine entrepreneurs' beliefs in different contexts. For example, future studies might address whether negotiable fate more strongly predicts entrepreneurship *intentions* when his or her livelihood depends on the capacity to use limited resources and create a market niche within an uncertain environment versus when he or she has unlimited resources to realize the vision of formulating a particular product.

6.5.2. Methodological considerations

This research is a first attempt to examine negotiable fate in the entrepreneurial orientation context. Our two-wave approach to data collection has methodological strengths, and directions for future research also emerge in light of its limitations. First, we asked only one executive at each firm to indicate their perceptions. Our approach followed the precedent of past studies on entrepreneurial orientation (Covin & Slevin, 1989; Smart & Conant, 1994; Wiklund & Shepherd, 2003), environmental dynamism (Heavey, Simsek, Roche, & Kelly, 2009; Miller & Friesen, 1983; Priem, Rasheed, & Kotulic, 1995; Schilke, 2014), and firm performance (Prajogo & Ahmed, 2006; Wang et al., 2003), but it leaves open the possibility that our findings are affected by common method variance (CMV). However, we found that negotiable fate beliefs significantly interacted with environmental dynamism in predicting entrepreneurial orientation, which CMV is unlikely to fully explain (Evans, 1985; Siemsen, Roth, & Oliveira, 2010).

To mitigate CMV concerns, we designed our studies as Podsakoff, MacKenzie, and Podsakoff (2012) recommended. First, we collected data on our predictor variable (i.e., negotiable fate) and outcome variables at different points in time (Podsakoff et al., 2012). Second, to more objectively assess firm performance, we asked respondents to report the percentage of profit from new products and return on assets (Buckley, Clegg, & Wang, 2002; Buckley, Clegg, Wang, et al., 2002; Carpenter & Sanders, 2002; Liu & Buck, 2007; Roberts & Dowling, 2002; Wang & Kafouros, 2009). These more objective measures complement the perceptive measures of firm performance by having a different item characteristic (i.e., reporting the information rather than making judgments about performance). The results were the same when we used either the perceived or objective measures as the outcome variables. Third, we reported the findings of supplementary analyses with pseudo-marker variables to model the potential effects of method variance, and found that our findings were not affected.

Thus, although our design was strong and our methodology was consistent with past research, future research might collect multi-source data from each firm to form composite scores, gather information on environmental dynamism and firm performance from an independent source, or employ a fully cross-lagged design with key measures collected at multiple time points to establish causality.

Last, future research can further refine the measurement of negotiable fate. In our six-item measure, we included new items that more closely capture the *negotiation* aspect, but reliability coefficients were similar to those observed in earlier studies (Au et al., 2011, 2012), and were thus acceptable by conventional standards but merit improvement ($0.65 < \alpha s < 0.73$; DeVillis, 1991). The measure could be refined in four possible ways. First, we could make the wording of items more consistent (e.g., "I can…", "I will…"), removing variation that might partially explain the lower reliability of the negotiable fate scale. Second, we could use the measure of prototypical proverbs reported in the pilot study, where we demonstrated that agreement with our negotiable fate measure is strongly correlated with agreement with Chinese proverbs capturing the negotiable fate concept. The proverbs have face validity in China by representing collective Chinese wisdom. Third, we could further divide the construct of negotiable fate into (1) beliefs about working with what fate has provided (e.g., "When fate fails to give me the most favorable situations, I must make the best of what is given") and (2) beliefs about actively negotiating with fate for better outcomes (e.g., "I can negotiate with fate and realize my dreams"). Finally, it may be useful to explore whether a measure that is context-specific to negotiable fate (e.g., work versus non-work) will be more reliable than the broad, domain-general formulation of negotiable fate captured in our current measure.

7. Conclusion

Theories must be developed with a local understanding of context if we are to better understand the mechanisms governing workplace behavior in China (Bond, 2009; Leung, 2012; Tsui, 2012). To this end, the beliefs of Chinese people regarding fate should be disambiguated, as traditional theories regarding control and fatalism (Rotter, 1966; Seligman, 1972) cannot adequately explain their simultaneous drive for success and a strong belief in fate (Zhou, Leung, & Bond, 2009). Consequently, we contribute to organizational behavior scholarship by introducing the Chinese belief in *negotiable fate*, which represents a joint causality model holding that external factors impose boundaries within which individuals can act to optimize their outcomes.

Our findings have at least two notable theoretical implications for organizational behavior and management scholarship. First, we establish that cultural values provide insight into culture-specific phenomena that cannot be obtained by applying or modifying theories and constructs developed to explain phenomena observed elsewhere (Bond, 2009; Leung, 2012; Tsui, 2012). Second, evidence that within-culture variation in environmental dynamism moderated the effect of negotiable fate on entrepreneurial orientation suggests that, although negotiable fate is rooted in Chinese collective wisdom, its relevance and benefits are context-specific. Consequently, "indigenous" theories and constructs may have practical relevance that extends beyond the host culture.

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References

Aiken, L., & West, S. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Arkush, R. D. (1984). "If man works hard the land will not be lazy": Entrepreneurial values in North Chinese peasant proverbs. *Modern China, 10*, 461–479.

Au, E. W. M. (2008). *Negotiable fate: The belief, potential antecedents, and possible consequences*. Unpublished doctoral dissertation. University of Illinois at Urbana-Champaign.

Au, E. W. M., Chiu, C., Chaturvedi, A., Mallorie, L., Viswanathan, M., Zhang, Z., & Savani, K. (2011). Maintaining faith in agency under immutable constraints: Cognitive consequences of believing in negotiable fate. *International Journal of Psychology, 46*, 463–474.

Au, E. W. M., Chiu, C., Zhang, Z., Mallorie, L., Chaturvedi, A., Viswanathan, M., & Savani, K. (2012). Negotiable fate: Social ecological foundation and psychological functions. *Journal of Cross-Cultural Psychology, 43*, 931–942.

Barker, V. L., III, & Mueller, G. C. (2002). CEO characteristics and firm R&D spending. *Management Science, 48*, 782–801.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99–120.

Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology, 33*, 492–516.

Bond, M. H. (2009). Believing in beliefs: A scientific but personal quest. In K. Leung & M. H. Bond (Eds.), *Psychological aspects of social axioms: Understanding global belief systems* (pp. 319–341). New York, NY: Springer Science + Business Media.

Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.). *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Boston, MA: Allyn & Bacon.

Buckley, P. J., Clegg, J., & Wang, C. (2002). The impacts of FDI on the performance of Chinese manufacturing firms. *Journal of International Business Studies, 33*, 637–655.

Buckley, P. J., Clegg, J., Wang, C., & Cross, A. (2002). Foreign direct investment, regional differences and economic growth: Panel data evidence from China. *Transnational Corporations, 11*, 1–28.

Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management, 30*, 749–778.

Carpenter, M. A., & Sanders, W. G. (2002). Top management team compensation: The missing link between CEO pay and firm performance? *Strategic Management Journal, 23*, 367–375.

Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of Business Venturing, 26*, 375–390.

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly, 52*, 351–386.

Chaturvedi, A., Chiu, C. Y., & Viswanathan, M. (2009). Literacy, negotiable fate, and thinking style among low income women in India. *Journal of Cross-Cultural Psychology, 40*(5), 880–893.

Cheng, C., Cheung, S. F., Chio, J. H. M., & Chan, M. P. S. (2013). Cultural meaning of perceived control: A meta-analysis of locus of control and psychological symptoms across 18 cultural regions. *Psychological Bulletin, 139*, 152–188.

Chiu, C. Y., Au, E. W. M., & Zhang, Z. X. (2012, June). Negotiable fate as bounded agency: Exercising agency under immutable societal constraints. In *New perspectives in east Asian studies* (pp. 107–139). Taipei, ROC.

Chiu, C., & Hong, Y. (2005). Cultural competence: Dynamic processes. In A. Elliot & C. S. Dweck (Eds.), *Handbook of motivation and competence* (pp. 489–505). New York: Guilford.

Chua, R. Y. J. (2013). The costs of ambient cultural disharmony: Indirect intercultural conflicts in social environment undermine creativity. *Academy of Management Journal, 56*, 1545–1577.

Coovert, M. D., & Craiger, J. P. (2000). An expert system for integrating multiple fit-indices for structural equations modeling. *New Review of Applied Expert Systems, 6*, 131–140.

Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal, 10*, 75–87.

Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly, 29*, 52–73.

Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. (2003). Emerging issues in corporate entrepreneurship. *Journal of Management, 29*, 351–378.

Dess, G. G., & Lumpkin, G. T. (2005). The role of entrepreneurial orientation in stimulating *effective* corporate entrepreneurship. *The Academy of Management Executive, 19*, 147–156.

DeVillis, R. F. (1991). *Scale development: Theory and applications* (3rd ed.). Washington, DC: Sage.

Eckel, C., & Grossman, P. (2008). Men, women and risk aversion: Experimental evidence. In C. Plott & V. Smith (Eds.). *Handbook of experimental economics Results* (Vol. 1, pp. 1061–1073). New York: Elsevier.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1–22.

Evans, H. M. (1981). Internal-external locus of control and word association: Research with Japanese and American students. *Journal of Cross-Cultural Psychology, 12*, 372–382.

Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes, 36*, 305–323.

Global Entrepreneurship Monitor (2016). *Global Entrepreneurship Monitor 2016/ 2017 global report*. <www.gemconsortium.org> Retrieved February 23rd 2017.

Heavey, C., Simsek, Z., Roche, F., & Kelly, A. (2009). Decision comprehensiveness and corporate entrepreneurship: The moderating role of managerial uncertainty preferences and environmental dynamism. *Journal of Management Studies, 46*, 1289–1314.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*, 1–55.

Jefferson, G., Hu, A. G. Z., Guan, X., & Yu, X. (2003). Ownership, performance, and innovation in China's large-and medium-size industrial enterprise sector. *China Economic Review, 14*, 89–113.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel Psychology, 56*, 303–331.

Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior, 19*, 151–188.

Keil, T. (2004). Building external corporate venturing capability. *Journal of Management Studies, 41*, 799–825.

Kim, H. C., Kulow, K., & Kramer, T. (2014). The interactive effect of beliefs in malleable fate and fateful predictions on choice. *Journal of Consumer Research, 40*, 1139–1148.

Koenig, M., Schlaegel, C., & Gunkel, M. (2013, January). Entrepreneurial traits and strategy in the performance of owner-manager led firms: A meta-analysis. In *Academy of management proceedings*.

Leung, K. (2010). Beliefs in Chinese culture. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 221–240). New York: Oxford University Press.

Leung, K., Bond, M. H., Reimel de Carrasquel, S., Muñoz, C., Hernández, M., Murakami, F., ... Singelis, T. M. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology, 33*, 286–302.

Leung, K. (2012). Theorizing about Chinese organizational behavior: The role of cultural and social forces. In X. Huang & M. H. Bond (Eds.), *Handbook of Chinese organizational behavior: Integrating theory, research and practice* (pp. 13–28). Cheltenham: Edward Elgar Publishing.

Leung, K., Lam, B. C. P., Bond, M. H., Conway, L. C., III, Gornick, L. J., Amponsah, B., ... Zhou, F. (2012). Developing and evaluating the social axioms survey in eleven countries: Its relationship with the five-factor model of personality. *Journal of Cross-Cultural Psychology, 43*, 833–857.

Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.). *Research with the locus of control construct* (Vol. 1, pp. 15–63). New York: Academic Press.

Li, H., & Atuahene-Gima, K. (2001). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal, 44*, 1123–1134.

Li, J., & Tang, Y. (2010). CEO hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of Management Journal, 53*, 45–68.

Liang, L. H., Lian, H., Brown, D., Ferris, D. L., Hanig, S., & Keeping, L. (2016). Why are abusive supervisors abusive? A dual-system self-control model. *Academy of Management Journal, 59*, 1385–1406.

Lin, C., Lin, P., Song, F. M., & Li, C. (2011). Managerial incentives, CEO characteristics and corporate innovation in China's private sector. *Journal of Comparative Economics, 39*, 176–190.

Lioukas, S., Bourantas, D., & Papadakis, V. (1993). Managerial autonomy of state-owned enterprises: Determining factors. *Organization Science, 4*, 645–666.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling: A Multidisciplinary Journal, 9*, 151–173.

Liu, Y. (2009). T*he relationships among entrepreneurial orientation, market orientation, product innovation and corporate performance*. Unpublished doctoral dissertation. China: Jilin University (in Chinese).

Liu, X., & Buck, T. (2007). Innovation performance and channels for international technology spillovers: Evidence from Chinese high-tech industries. *Research Policy, 36*, 355–366.

Liu, X., Liu, C., & Jiang, N. (2013). Organizational creativity and performance: The moderating role of entrepreneurial orientation and process control. *Science of Science and Management of S. & T., 34*, 171–180 (in Chinese).

Lu, L., Kao, S., Cooper, C. L., & Spector, P. E. (2000). Managerial stress, locus of control, and job strain in Taiwan and UK: A comparative study. *International Journal of Stress Management, 7*, 209–226.

Lu, J., & Tao, Z. (2010). Determinants of entrepreneurial activities in China. *Journal of Business Venturing, 25*, 261–273.

Lynn, G. S., Skov, R. B., & Abel, K. D. (1999). Practices that support team learning and their impact on speed of market and new product success. *Journal of Product Innovation Management, 16*, 439–454.

MacCrimmon, K., & Wehrung, D. (1990). Characteristics of risk taking executives. *Management Science, 36*, 422–435.

MacKinnon, D. P., Fritz, M. S., Williams, J., & Lockwood, C. M. (2007). Distribution of the product confidence limits for the indirect effect: Program PRODCLIN. *Behavior Research Methods, 39*, 384–389.

MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research, 39*, 99–128.

Meehl, P. E. (1971). High school yearbooks: A reply to Schwarz. *Journal of Abnormal Psychology, 77*, 143–148.

Meyerson, D. E. (2001). Radical change, the quiet way. *Harvard Business Review, 79*, 92–104.

Meyerson, D. E., & Scully, M. A. (1995). Tempered radicalism and the politics of radicalism and change. *Organization Science, 6*, 585–600.

Mieder, W. (2004). *Proverbs: A handbook*. Westportm, CT: Greenwood Press.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science, 29*, 770–791.

Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: The third link. *Strategic Management Journal, 4*, 221–235.

Na, E., & Loftus, E. F. (1998). Attitudes toward law and prisoners, conservative authoritarianism, attribution, and internal-external locus of control: Korean and American law students and undergraduates. *Journal of Cross-Cultural Psychology, 29*, 595–615.

Nadkarni, S., & Herrmann, P. O. L. (2010). CEO personality, strategic flexibility, and firm performance: The case of the Indian business process outsourcing industry. *Academy of Management Journal, 53*, 1050–1073.

Ou, A. Y., Tsui, A. S., Kinicki, A., Waldman, D., Xiao, Z., & Song, L. J. (2014). Humble chief executive officers' connections to top management team integration and middle managers' responses. *Administrative Science Quarterly, 59*, 34–72.

Perry, J. T., Chandler, G. N., & Markova, G. (2012). Entrepreneurial effectuation: A review and suggestions for future research. *Entrepreneurship: Theory and Practice, 36*, 837–861.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 65*, 539–569.

Prajogo, D. I., & Ahmed, P. K. (2006). Relationships between innovation stimulus, innovation capacity, and innovation performance. *R&D Management, 36*, 499–515.

Priem, R. L., Rasheed, A. M., & Kotulic, A. G. (1995). Rationality in strategic decision processes, environmental dynamism and firm performance. *Journal of Management, 21*, 913–929.

Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship: Theory and Practice, 33*, 761–787.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal, 23*, 1077–1093.

Rodell, J. (2013). Finding meaning through volunteering: Why do employees volunteer and what does it mean for their jobs? *Academy of Management Journal, 56*, 1274–1294.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*, 1–28.

Sarasvathy, S. D. (1998). *How do firms come to be? Towards a theory of the prefirm*. Doctoral dissertation. Pittsburgh: Carnegie Mellon University.

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*, 243–263.

Sarasvathy, S. D., Dew, N., Velamuri, S. R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurial research* (pp. 141–160). Boston: Kluwer Academic.

Schildt, H. A., Maula, M. V. J., & Keil, T. (2005). Explorative and exploitative learning from external corporate ventures. *Entrepreneurship: Theory and Practice, 29*, 493–515.

Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal, 35*, 179–203.

Seligman, M. E. P. (1972). Learned helplessness. *Annual Review of Medicine, 23*, 407–412.

Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods, 13*, 456–476.

Simsek, Z., Heavey, C., & Veiga, J. F. (2010). The impact of CEO core self-evaluation on the firm's entrepreneurial orientation. *Strategic Management Journal, 31*, 110–119.

Smart, D. T., & Conant, J. S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance. *Journal of Applied Business Research, 10*, 28–38.

Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods, 14*, 287–305.

Tang, J., Tang, Z., & Cowden, B. J. (2016). Exploring the relationship between entrepreneurial orientation, CEO dual values, and SME performance in state-owned vs. nonstate-owned enterprises in China. *Entrepreneurship: Theory and Practice*.

Tang, J., Tang, Z., Marino, L. D., Zhang, Y., & Li, Q. (2008). Exploring an inverted U-shape relationship between entrepreneurial orientation and performance in Chinese ventures. *Entrepreneurship: Theory and Practice, 32*, 219–239.

Tofighi, D., & MacKinnon, D. P. (2011). RMediation: An R package for mediation analysis confidence intervals. *Behavior Research Methods, 43*, 692–700.

Tsui, A. (2012). Contextualizing research in a modernizing China. In X. Huang & M. H. Bond (Eds.), *Handbook of Chinese organizational behavior: Integrating theory, research and practice* (pp. 13–28). Cheltenham: Edward Elgar Publishing.

UBS Prices and Earnings Report (2015). *Global ranking of working hours.* <https://www.ubs.com/microsites/prices-earnings/edition-2015.html> Retrieved November 3rd 2016.

Vroom, V. H., & Pahl, B. (1971). Relationship between age and risk taking among managers. *Journal of Applied Psychology, 55*, 399–405.

Wang, C., & Kafouros, M. I. (2009). What factors determine innovation performance in emerging economies? Evidence from China. *International Business Review, 18*, 606–616.

Wang, D., Tsui, A. S., Zhang, Y., & Ma, L. (2003). Employment relationship and firm performance: Evidence from the People's Republic of China. *Journal of Organizational Behavior, 24*, 511–535.

Wijbenga, F. H., & van Witteloostuijn, A. (2007). Entrepreneurial locus of control and competitive strategies: The moderating effect of environmental dynamism. *Journal of Economic Psychology, 28*, 566–589.

Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal, 24*, 1307–1314.

Williams, L. J., Vandenberg, R. J., & Edwards, J. R. (2009). Structural equation modeling in management research: A guide for improved analysis. *Academy of Management Annals, 3*, 543–604.

Wiltbank, R., Dew, N., Read, S., & Sarasvathy, S. D. (2006). What to do next? The case for non-predictive strategy. *Strategic Management Journal, 27*, 981–998.

Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing, 24*, 116–133.

World Bank (2016). *China's annual GPA growth.* Data from 1986–2016 retrieved on November 10th from <http://data.worldbank.org/country/china>.

Wu, C. H., Liu, J., Kwan, H. K., & Lee, C. (2016). Why and when workplace ostracism inhibits organizational citizenship behaviors: An organizational identification perspective. *Journal of Applied Psychology, 101*, 362–378.

Xie, Y., & Gao, S. (2013). The stimulus and consequence of original technological innovation: An investigation on its relationship with entrepreneur orientation and firm competitiveness. *Science of Science and Management of S & T, 34*, 116–125 (in Chinese).

Xin, K. K., & Pearce, J. L. (1996). Guanxi: Connections as substitutes for formal institutional support. *Academy of Management Journal, 39*, 1641–1658.

Zhang, Z. X. (2014). The growth path of entrepreneurs. In Z. X. Zhang & J. Zhang (Eds.), *Understanding Chinese firms from multiple perspectives* (pp. 81–118). Berlin: Peking University Press and Springer.

Zhao, Y., Li, Y., Lee, S. H., & Chen, L. B. (2011). Entrepreneurial orientation, organizational learning, and performance: Evidence from China. *Entrepreneurship: Theory and Practice, 35*, 293–317.

Zhou, F., Leung, K., & Bond, M. H. (2009). Social axioms and achievement across cultures: The influence of reward for application and fate control. *Learning and Individual Differences, 19*, 366–371.

Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The effects of strategic orientations in technology-based and market-based breakthrough innovations. *Journal of Marketing, 69*, 42–60.