

# Chinese adolescents' belief in a just world and academic resilience: The mediating role of perceived academic competence

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## Abstract

The current study examined the relationship between belief in a just world and self-reported academic resilience, and whether perceived academic competence mediated this relationship. Seven-hundred fifty-one students enrolled in a middle school and a high school (45.81% male, 15 to 16 years old) from two regions of China participated in this study. Structural equation modeling indicated that general belief in a just world was: (1) directly associated with academic resilience, and (2) indirectly associated with students' academic resilience *through* perceived academic competence, after controlling for the effects of gender and socioeconomic status. This study provides insight into how broader social-ideological understandings of the world (e.g., belief in a just world) may guide individual self-construals (e.g., perceived academic competence) to affect individual persistence in the face of adversity (e.g., resilience). Implications and limitations of the current study are discussed.

## Keywords

general belief in a just world, personal belief in a just world, perceived academic competence, academic resilience, middle school students, mediating effect

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Like many around the world, Chinese people regard education as a critical path for social status improvement, family honor, material rewards (Li & Yeung, 2017; Luo, 1996; Smith & Prior 1995) and an important opportunity to change one's fate (Annunziata, Hogue, Faw, & Liddle, 2006; Li & Yeung, 2017). Unfortunately, this pursuit of self-improvement in China is particularly challenging. As one of the world's most populous countries, limited educational resources have yielded an intensely competitive academic context, particularly at the middle and high school levels (Martin & Hau, 2010). Such an intensely competitive environment means that students often abandon leisure activities to spend more time focusing on their academic pursuits. Despite this challenging educational context, Chinese students perform extremely well across in a variety of academic domains (see e.g., Organization for Economic Cooperation and Development (OECD), 2012, 2016). We propose that it is students' *academic resilience* that enables them to persevere and achieve in their highly competitive academic environment. In the current research, we seek to understand potential *antecedents* of this resilience in the hope of building a better understanding of students' abilities to achieve despite adversities.

### *Academic resilience*

Academic resilience refers to the capacity of students to persevere and continue performing at relatively high academic levels despite facing a variety of adversities (or "risk factors") that would otherwise predict poorer academic performance among most students in similar contexts (Morales, 2014; Morales & Trotman, 2004). For example, we know that students from disadvantaged backgrounds are relatively likely to repeat a grade, drop out of school, and have lower overall academic outcomes in standard assessments (e.g., Finn & Rock, 1997; Sirin, 2005). At the same time, however, some students seem not to be as vulnerable as their disadvantaged circumstances would otherwise predict, achieving above the statistical norm for others in the same situation (termed "the statistical elite" by Gerardi, 1990, p. 403).

In the resilience literature, while adversities and challenges that predict relatively poor academic outcomes are considered risk factors, "protective factors" are those variables that mitigate against these poor outcomes while potentially facilitating positive ones (Luthar & Cicchetti, 2000; Rutter, 1985). Such protective factors play an important role in resilience theory, as they are a potential means by which to facilitate the achievement of students who are otherwise disadvantaged or are facing challenging situations (Li, 2017). We suspect the operation of protective factors among Chinese students, as there appears to be a relatively high level of academic resilience despite the challenging and competitive academic context in which they study. For example, the result of Programme for International Student Assessment (PISA) indicated that the percentage of resilient students in four representative cities of mainland China (Beijing, Shanghai, Guangzhou, Jiangsu) was 45%, while the average percentage in OECD countries was only 29% (OECD, 2016).

Empirical work examining resilience has shown that the capacity and outcome of individuals to manage when facing risk factors can be attributed, at least in part, to the available resources that they have within their environment (e.g., Stokols, Lejano, & Hipp, 2013; Tempuski et al., 2015; Ungar & Liebenberg, 2011). While some of these may be material and social in nature (e.g., Affi & MacMillan, 2011), others are more symbolic, culturally embedded world-views that provide explanation and meaning for the context and outcomes in which people (including students) find themselves (e.g., Masten & Coatsworth, 1998; Ungar, 2008). It is one of these latter, world-views that we examine in the current research as a potential predictor of academic resilience. Specifically, we examine belief in a just world (BJW), a world-view that can be found in all cultures, but one that is particularly rooted in Chinese cultural traditions and values (Callan, Harvey, & Sutton, 2014; Zhou & Guo, 2013).

### *Belief in a just world and academic resilience*

Lerner and Miller (1978) proposed that individuals have a need to believe that they live in a world where people generally get what they deserve. Since the original statement, researchers have identified two broad dimensions of BJW (Dalbert, 1999; Lipkus, Dalbert, & Siegler, 1996): (1) the General BJW, which concerns whether people believe they live in a just world, and (2) the Personal BJW, which concerns whether people themselves believe that they are treated fairly. Although positively correlated, General BJW and Personal BJW have functionally distinct theoretical foundations and empirical findings (Sutton, Stoeber, & Kamble, 2017; Sutton & Winnard, 2007). General BJW, for example, positively predicts the belief that overall fairness will be maintained by some form of future compensation for those who are currently disadvantaged (e.g., Jost & Hunyady, 2005). At the same time, General BJW also predicts the derogation of victims, such that people are perceived to receive outcomes that they somehow deserve (thereby maintaining the belief of general justice in the world; e.g., Bègue & Bastounis, 2003). In contrast, Personal BJW tends to be positively related to mental health (e.g., subjective well-being; Sutton & Douglas, 2005) and prosocial behavior (Bègue, 2014).

The bases of people's beliefs in a just world include direct, personal experiences (McParland, Knussen, & Murray, 2016; Peter & Dalbert, 2010), parental up-bringing and emotional warmth (Dalbert & Radant, 2004; Liu, Li, Pan, & Zhang, 2019; Umemura & Šerek, 2016), and whether they live in an individualistic or collectivistic culture (Pedersen & Strömwall, 2013; Wu et al., 2011). Of particular relevance to the current work is the role of culture. Chinese culture plays an important role in forming and maintaining Chinese people's just-world beliefs, especially General BJW (Wu et al., 2011). For example, Chinese Taoism suggests the existence of natural order (called Tao) that people are advised to follow (Fung, 1948; Zhang & Veenhoven, 2008). This particular cultural philosophy is similar to just-world hypothesis outlined by Lerner and Miller (1978), as it shapes Chinese people's beliefs that the world is fair and orderly (Callan et al., 2014; Dalbert & Maes,

2002). The Taoist belief enables Chinese people also to believe that they will receive outcomes they deserve through their own behaviors. As such, they often choose to work hard for a better life, without asking “why me?” or doubting the justice of the world when facing adversities (Furnham, 2003; Zhou & Guo, 2013).

With such beliefs originating in, and shaped by, the cultural context, Chinese people are relatively resilient to the disadvantaged environments they encounter compared to others from individualistic cultures (Dong, 2012), often overcoming adversities through their own effort (Fincher, Thornhill, Murray, & Schaller, 2008; Shek, 2004). Studies explicitly examining BJW have shown that it is, in fact, a significant predictor of resilience among Chinese. A study of Chinese adolescents, for example, revealed that both General BJW and Personal BJW are positively correlated with resilience (Dong, 2012). Other evidence has shown that only General BJW significantly predicts resilience among earthquake adult survivors and among normal adolescents, while Personal BJW does not (Wu et al., 2011). Ji (2015) subsequently found that Personal BJW is positively correlated with resilience among Chinese clinical nurses.

Collectively, it is clear that BJW is positively correlated with resilience among Chinese, although the relationship between the two dimensions of BJW and resilience remains unclear. Given the academic resilience of Chinese adolescents in the context of their challenging educational environment, the current study examined both dimensions of BJW to identify their relative contribution to academic resilience among Chinese adolescents.

### *The mediating role of perceived academic competence*

If the positive relationship between BJW and academic resilience does occur, the question remains why this might be so. What is the process through which BJW leads to academic resilience? Currently, we propose that BJW leads students to have an enhanced perception of academic competence in their own abilities, and it is this perception that has the most direct effect on academic resilience.

Perceived competence refers to individuals' subjective assessments of their abilities to perform well in a particular task; perceived academic competence is a specific subjective assessment of students' own abilities in their studies (Bandura, 1986; Bouffard, Marcoux, Vezeau, & Bordeleau, 2003; Maltais, Duchesne, Ratelle, & Feng, 2015). According to self-determination theory (Ryan & Deci, 2017), perceived academic competence can be achieved via academic challenges, difficulties, and failure experiences (see also Skinner & Wellborn, 1994). Indeed, academic failure is regarded as an informational source, and students' perceived academic competence is built from the process of facing and overcoming failures. The students who do not learn from their failure experience are less likely to generate a subjective sense of academic competence.

Critically for our analysis, if students do not believe in a just world, they are likely to consider their efforts to be useless and their fates as immutable. Indeed, research shows that people with relatively high levels of BJW are likely to make internal

attributions for their outcomes (Hafer & Corey, 1999; Hepworth, 2005). That is, high BJW students are more likely to attribute academic failure to internal factors (e.g., effort) rather than external factors (e.g., low socioeconomic status (SES), competitive educational context). Of course, effort is an important factor in students' achievement and academic competence (Ho, Salili, Biggs, & Hau, 1999; Lau & Chan, 2001). Conversely, low BJW students are likely to forgo hard work and ability cultivation, ultimately leading to a failure to develop their competence at the academic task.

Given the Taoist underpinning of much of Chinese culture, and its close conceptual relationship to BJW, Chinese students (and their parents) may be particularly likely to believe that enhanced effort will be rewarded with enhanced academic outcomes. Indeed, it is perhaps the reason why academic effort is strongly emphasized in China, potentially more so than in Western contexts (Lau & Chan, 2001). Following this line of reasoning, we consider students' BJW as a possible predictor of their perceived academic competence. Academic competence, in turn, is likely to be a proximal predictor of students' academic resilience.

Although the relationship between perceived academic competence and academic resilience has yet to be identified, there is work indicating a positive relationship between perceived academic competence and academic achievement. Studies clearly show that students' perceived academic competence and their academic achievement are positively correlated (Ceci, Ginther, Kahn, & Williams, 2014; Huang, 2011; Skaalvik & Skaalvik, 2006). Weidinger, Steinmayr, and Spinath (2017) further demonstrated this relationship in a longitudinal study among children aged eight to nine years, providing strong evidence that perceived academic competence does predict academic achievement. Moreover, perceived competence has also been shown to lead children and adolescents to overcome a variety of adversities (Blomeyer, Coneus, Laucht, & Pfeiffer, 2013; Masten et al., 1999; Schoon & Parson, 2010). Based upon this work, we hypothesize that students' perceived academic competence will positively predict their academic resilience.

### *The current study*

Based on our analysis above, we are currently proposing a model in which academic resilience is an outcome of both BJW and perceived academic competence. Our model also proposes that perceived academic competence is, itself, an outcome, at least in part, of BJW. In this way, we will be evaluating the degree to which perceived academic competence mediates the relationship between BJW and academic resilience. To test this model, we will be examining both General BJW and Personal BJW. Previously published work does not allow us to make a clear prediction about whether, or the degree to which, one or the other (or both) of these will play a significant role in the model.

Because the outcome variable in our model is academic resilience, we are cognizant of the need to control for at least some other variables that may also be correlated with this outcome. Currently, we will control for both the gender and SES of our participants. Both McGinty (1999) and Morales (2008), for example,

have identified gender as a significant predictor of resilience. Moreover, many studies consider SES as a powerful risk factor challenging students' academic resilience (Agasisti, Avvisati, Borgonovi, & Longobardi, 2018; Li, Martin, & Yueng, 2015; Li & Yeung, 2017). Although neither of these demographic variables is central to our conceptual analysis, we will statistically control for each by including them both as covariates in our model.

The current study explicitly sampled students in Grades 9 and 10 as participants because, in China, they have nearly or already completed nine years of compulsory education. According to the People's Republic of China's "compulsory education law", everyone must receive nine years of compulsory education, with further education recommended but not compulsory. Students in our sample would, thus, have experienced sufficient challenges in their academic trajectories to make the concept of academic resilience relevant to these students.

## Method

### *Participants and procedure*

Participants were Grade 9 and Grade 10 volunteer students recruited from a Chinese middle school in Yantai and a high school in Guangzhou. The participants completed a paper-and-pencil questionnaire in quiet classrooms. The average duration of the study was 10 minutes. Participants began the study by responding to demographic questions and a SES scale. Then, they answered a Chinese version of the Belief in a Just World Scale, the Perceived Competence Scale and the Academic Resilience Scale. Initially, 796 participants accessed the questionnaire, but only 751 (94.35%) students completed all the measures, including 344 (45.81%) males and 407 (54.19%) females. The mean age was 15.6 years ( $SD = 0.27$ ).

### *Measures*

Each questionnaire contained the four sections outlined below. The items in each section were presented randomly.

*Demographics and Socioeconomic Status Scale.* The first part of the questionnaire allowed us to collect data on gender, age, and SES. The Socioeconomic Status Scale included six items from PISA 2015 (OECD, 2013). The first item of this scale was, "Are these objects available in your home?" followed by 13 objects (e.g., personal learning room, computer for study, reference books for study); students responded by indicating "Available/Not available". An answer of "available" for each object was coded as 1, and "not available" was coded as 0. The second item of the Socioeconomic Status Scale was, "Size of the book collection at home"; six categorical options were provided (<10, 11–25, 26–100, 101–200, 201–500, >500), with responses coded from 1 to 6 in the order presented. The third and fourth items of the Socioeconomic Status Scale were, "The highest education backgrounds of

your mother and father”; five options were provided (elementary school, junior high school, senior high school, vocational school, bachelor degree or higher), and responses were coded from 1 to 5 in the order presented. The final two items of the Socioeconomic Status Scale were, “The occupations of you mother and father now;” 10 options were provided (e.g., specialized persons, sales personnel, worker). The recommended score of each occupation from PISA 2015 was used (e.g., specialized persons = 67; sales personnel = 42; worker = 34). Responses from these six items were integrated into a total score representing Socioeconomic Status through a single-factor confirmatory factor analysis (CFA; described below).

**Belief in a Just World Scale.** To measure BJW, we used the Chinese version of the original scale developed by Dalbert (1999); this Chinese version was validated by Su, Zhang, and Wang (2012). The scale includes two subscales, General BJW and Personal BJW, each consisting of six items. As noted above, General BJW represents beliefs of justice within the broader society (e.g., “I am confident that justice always prevails over injustice,” “I think basically the world is a just place”), while Personal BJW represents beliefs of justice to the individual respondent (“I am usually treated fairly,” “Overall, events in my life are just”). Participants responded to each item on a 6-point Likert Scale (1 = “strongly disagree,” 6 = “strongly agree”). In this study, Cronbach’s  $\alpha$ s were .793 for General BJW and .766 for Personal BJW.

**Perceived Academic Competence Scale.** Perceived academic competence was measured with a four-item revised general perceived competence scale developed by Williams and Deci (1996). When revising items, we changed the focus of items from general competence to academic competence specifically. Sample items are, “I feel confident in my ability to learn the study materials” and “I am able to achieve my goal about study”. Participants responded to each item on a 7-point Likert Scale (1 = “strongly disagree,” 7 = “strongly agree”). In this study, Cronbach’s  $\alpha$  was .837.

**Academic Resilience Scale.** Academic resilience was measured via a 9-item scale that was originally developed by Ricketts, Engelhard, and Chang (2015) to measure mathematic academic resilience. To allow us to measure broader academic resilience, we revised the words about mathematics to focus on students’ academic studies in general. Sample items are, “I believe that if I work hard at study, I can do well at it” and “I don’t let a bad grade affect my confidence”. Participants responded to each item on a 6-point Likert Scale (1 = “strongly disagree,” 6 = “strongly agree”). In this study, Cronbach’s  $\alpha$  was .864.

### **Statistical analyses**

In this study, missing data were less than 1% and were replaced by mean imputation values (Little & Rubin, 2002). The descriptive statistics and correlations were calculated using SPSS 24.0. Then, we examined the direct relationship between BJW and academic resilience and the serial multiple mediation effect of perceived

academic competence by utilizing structural equation modeling (SEM) in Mplus7.0 (Preacher, Zhang, & Zyphur, 2011); maximum likelihood estimation (Schumacker & Lomax, 2004) and the bootstrapping methods were applied (Preacher & Hayes, 2008).<sup>1</sup>

## Results

The result of CFA of four latent variables (General BJW, Personal BJW, academic resilience, perceived academic competence) showed that measurement model fit the data well ( $\chi^2 = 1095.044$ ,  $df = 246$ ,  $p < .001$ , comparative fit index (CFI) = 0.921, Tucker–Lewis index (TLI) = 0.911, root mean square error of approximation (RMSEA) = 0.068, standardized root mean square residual (SRMR) = 0.043). Its loadings of latent variables were all significant ( $p < .001$ ) and item factors were all ranged from 0.55 to 0.95.

Descriptive statistics are presented in Table 1. Results indicated that Personal BJW and General BJW were both positively correlated with academic resilience and perceived academic competence. The relationship between academic resilience and perceived academic competence was also positive. The independent variables, mediators, and dependent variables were, thus, all significantly correlated. As for control variables, gender was weakly correlated with Personal BJW and General BJW, and SES was positively correlated with academic resilience and perceived academic competence.

### Mediational analysis

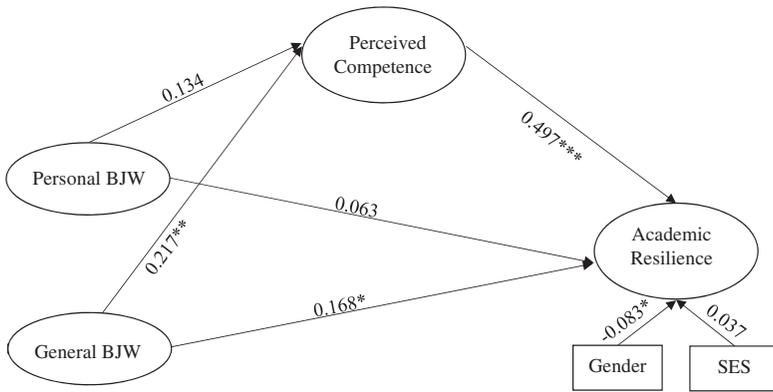
The relationship between BJW and academic resilience was first tested. Results showed that General BJW significantly predicted academic resilience ( $\beta = 0.250$ ,  $t = 2.316$ ,  $p < .05$ ) after controlling for the effects of gender ( $\beta = -0.113$ ,  $t = -3.095$ ,  $p < .01$ ) and SES ( $\beta = 0.122$ ,  $t = 3.133$ ,  $p < .01$ ). In contrast, Personal BJW did not predict academic resilience ( $\beta = 0.148$ ,  $t = 1.455$ ,  $p > .05$ ). The model demonstrated good fit ( $\chi^2 = 957.648$ ,  $df = 205$ ,  $p < .001$ , CFI = 0.911, TLI = 0.903, RMSEA = 0.070, SRMR = 0.046).

Next, the full mediational model was tested, with SEM results showing good data fit ( $\chi^2 = 1205.172$ ,  $df = 292$ ,  $p < .001$ , CFI = 0.916, TLI = 0.906, RMSEA = 0.065, SRMR = 0.048; see Figure 1). Results demonstrated that the mediation effect accounted for 38.22% of the total variance after controlling for the covariates. The detailed results are presented in Table 2, which suggest that higher General BJW positively predicts greater perceived academic competence ( $\beta = 0.217$ ,  $t = 2.106$ ,  $p < .05$ ) which, in turn, positively predicts academic resilience ( $\beta = 0.479$ ,  $t = 11.021$ ,  $p < .001$ ), after controlling for the effects of gender ( $\beta = -0.083$ ,  $t = -2.504$ ,  $p < .05$ ) and SES ( $\beta = 0.037$ ,  $t = 0.035$ ,  $p > .05$ ). As such, perceived academic competence significantly mediated the relationship between General BJW and academic resilience; it was not, however, a significant mediator in the relationship between Personal BJW and academic resilience.

**Table 1.** Means, standard deviations, and correlation matrix among variables.

Variables	M	SD	1	2	3	4	5	6
(1) Personal BJW	4.293	0.989	1					
(2) General BJW	4.151	1.056	0.737**	1				
(3) Academic Resilience	4.575	0.959	0.323**	0.359**	1			
(4) Perceived Competence	5.038	1.299	0.289**	0.295**	0.517**	1		
(5) Gender	–	–	0.091**	0.085**	–0.031	–0.022	1	
(6) Social Economic Status	–	–	–0.010	–0.070	0.129**	0.190**	0.035	1

BJW: belief in a just world; coding of gender: Male = 1, Female = 2.  
 N = 751; \*\* $p < .01$ .



**Figure 1.** Mediating effect of Perceived Competence in the relationship between Personal BJW, General BJW, and Academic Resilience. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### Discussion

A large body of evidence suggests that strong resilience is a typical characteristic in China, and that it is particularly beneficial for adolescents and adults who face challenges in their lives (Chiao & Blizinsky, 2009; Fincher et al., 2008; Inglehart & Welzel, 2005). The current study sought to understand antecedent factors to this resilience. In particular, we developed a conceptual model in which academic resilience is predicted, at least in part, by students’ BJW. Moreover, we hypothesized that this relationship would be mediated by the students’ perceptions of their academic competence. We tested this model with a sample of Chinese Grade 9 and 10 students. Analyses provided support for the model when considering General BJW, but not Personal BJW. We consider the implications of these findings below.

First, we note that perceived academic competence does, indeed, directly predict academic resilience. This makes conceptual sense. Students’ perceived competence

**Table 2.** Mediation of the effect of Personal BJW and General BJW on academic resilience through perceived competence.

Dependent variable	Independent variable	Product of coefficients			95% CI	
		$\beta$	SE	t	Lower	Upper
Perceived Academic Competence	Personal BJW	0.134	0.104	1.282	-0.042	0.305
	General BJW	0.217*	0.104	2.083	0.046	0.390
Academic Resilience	Personal BJW	0.063	0.088	0.716	-0.084	0.202
	General BJW	0.168*	0.097	1.730	0.020	0.337
	Perceived Competence	0.479***	0.046	10.505	0.402	0.552
	Gender	-0.083*	0.034	-2.425	-0.141	-0.028
	SES	0.037	0.034	1.093	-0.020	0.093

BJW: belief in a just world.

N = 751; \* $p < .05$ , \*\*\* $p < .001$ ; 5000 bootstrap samples.

is likely to facilitate efforts to overcome academic adversities (Blomeyer et al., 2013; Schoon & Parson, 2010). More critical to our current conceptual analysis, however, is the relationship between BJW and academic resilience.

Both forms of BJW yielded significant and positive zero-order correlations with academic resilience. However, when including both into the same model, only General BJW remained significant. Previous studies from *collectivistic* cultures indicate that General BJW often does prevail over Personal BJW in predicting various outcomes (Wu et al., 2011; Wu, Wang, Zhou, Wang, & Zhang, 2009; Zhu, Wu, Li, Shi, & Wang, 2010) and serving adaptive functions (Bègue, 2014; Sutton & Douglas, 2005). Wu et al. (2011) hypothesized that the importance of General BJW may relate to the good external, communal, and supportive environment in collectivistic cultures. Moreover, in the current study, the General BJW of adolescents may likely have been reinforced in the Chinese academic context. On the one hand, as noted in the “Introduction” section, this context is highly competitive and may serve as a potential risk factor. On the other hand, while students’ grades earned from the Chinese National College Entrance Exam (NCEE) are the sole criterion of university admission (potentially enhancing stress and, hence, serving as a risk factor), the NCEE *does* provide a standardized, normative and legitimate means to continue academic pursuits (Fan, 2018). This state-based institution, thus, may reinforce General BJW by ensuring both procedural and distributive fairness across the Chinese educational environment.

Whether this pattern of results replicates in non-collectivistic societies is an empirical question. On the one hand, the processes we were examining were measured at an individual level. So, while mean levels of our variables may differ across cultures, the relationships between these variables may remain the same. On the other hand,

research with samples from non-collectivistic societies suggests that adaptive functions of BJW are only related primarily to Personal BJW, while General BJW often predicts more anti-social attitudes and victim derogation (Bègue & Bastounis, 2003). Indeed, even at a conceptual level, it may well be the case that variables relating to *personal* processes may be more important in individualistic cultures than collectivistic cultures. Clearly, it will be of value to replicate the current work in individualistic countries like the United States and Australia.

Not only was the direct relationship between General BJW and academic resilience significant, but it was partially mediated by students' perceived academic competence. This is precisely what was currently predicted by our model. Again, however, we need to reflect on why it was General BJW but not Personal BJW that predicted perceived academic competence. For Chinese students, the collectivistic external situation may structure their perceptions about their personal competence largely through the external environment. In this way, Chinese students' perceived academic competence may emerge not simply from understanding themselves as unique individuals, but from the broader collectivistic environment in which they work, study, and have been socialized. Future work in non-collectivistic cultures will, again, help facilitate a deeper understanding of this relationship.

In regard to the implications of this study, it does highlight the importance of General BJW in promoting Chinese students' academic resilience. We recommend that Chinese educators and governments attend to the effect of General BJW and perceived academic competence on adolescents, and work create and ensure a just atmosphere on academic campuses. As adolescents are studying, their beliefs about the world are strongly influenced by observations and experiences on their campuses (Barreiro, 2008). Unfortunately, in Chinese schools, there are many interactions that may impede students' general beliefs in a just world. For example, some schools and invigilators acquiesce to students' cheating behaviors on exams, seeking to portray a relatively high average score to parents and government (Niu & Niu, 2017; Xia & Shi, 2017). And while urban elementary schools offer English courses from Grade 1, elementary schools in the countryside only offer English courses from Grade 3 (or even later; Jiang, 2017); this discrepancy, of course, may well be seen by students as inequitable. Finally, some teachers only pay attention to students from gift-giving (or money-giving) families, while ignoring those from lower-SES families (Gu, 2012). Those involved in overseeing Chinese education thus need to ensure that practices that are unfair—or even *perceived* to be unfair—are eliminated from the educational context so as to help support and build students' general BJW. This competitive but fair educational environment would provide a strong context to promote students' perceived academic competence, in turn leading to academic achievement and resilience.

Although we see strength in the current article, including the proposal and evaluation of a new conceptual model, the current research does have limitations. First, the data are cross-sectional, so we remain unable to demonstrate conclusively the causal relationships implied in Figure 1. It is recommended that future studies collect both experimental data (e.g., by making salient different forms of justice or injustice)

and longitudinal cross-lag data using similar measures as those we currently employed. Second, as discussed throughout, this study sampled only Chinese students. While some of our conceptual arguments were based on relatively unique features of Chinese culture (e.g., Taoism, collectivism), it may well be that our proposed model finds support in other cultures and academic environments. At the same time, we may well find that Personal BJW emerges as a more dominant process in non-collectivistic cultures. And third, it will be of value to extend analysis of the current model beyond the focused age range of the current study. Indeed, university students in China and elsewhere need to remain resilient as they face new academic challenges (e.g., Fleming & Grace, 2015; Jetten, Iyer, & Zhang, 2017). Testing our model among this somewhat older population will be quite valuable.

## Conclusions

General BJW emerged in this study as a significant predictor of academic resilience in Chinese adolescents, with perceived academic competence playing a mediating role between them. This is in contrast to personal BJW, which failed to emerge as a significant predictor of either academic resilience or perceived academic competence. These findings imply that maintaining a sense of justice in both education and the broader society to improve adolescents' general BJW may enhance perceived academic competence and promote the emergence of resilient students.

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## Note

1. The evaluation standards for goodness of SEM model are: comparative fit index (CFI) >0.9 (Bagozzi & Yi, 1988); Tucker–Lewis index (TLI) >0.9 (Bentler & Bonette, 1980); root mean square error of approximation (RMSEA) <0.1 (Hu & Bentler, 1999); standardized root mean square residual (SRMR) <0.08 (Jarvenpaa, Tractinsky, & Vitale, 2000).

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