

# HALF THE SKY: The Moderating Role of Cultural Collectivism in Job Turnover Among Chinese Female Workers

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**Abstract** The present study examines how collectivism, an important cultural value, plays a moderating role in the association between job attitudes (job satisfaction and organizational commitment) and actual turnover in a sample of 781 Chinese female workers. Results show that collectivism moderates the relationships between job attitude variables and turnover intention. Job satisfaction and organizational commitment are more powerful in predicting turnover intention when levels of collectivism are high rather than low. However, collectivism only moderates the mediation of turnover intention in the relationship between job satisfaction and actual turnover. The study deepens the understanding of the moderating effect of cultural values in organizational behavioral outcomes as Taras et al. (J Appl Psychol 95:405–439, 2010) suggest. Also discussed are the practical implications on how to control the voluntary termination of female laborers who constitute an important part in Chinese manufacturing.

**Keywords** Collectivism · Job satisfaction · Organizational commitment · Turnover · Chinese female workers

In the era of globalization, an increasing number of business organizations have expanded overseas and have established offices outside their home countries. A company could have its corporate office, manufacturing, and information technology support on different continents (Deresky 2006; Friedman 2005). Understanding how cultural values relate to workplace outcomes is increasingly important (e.g., Kirkman et al. 2006; Taras et al. 2010). However, in a recent meta-analytic review, Taras et al. (2010) found that Hofstede's (1980) four cultural dimensions are only weakly related to workplace behaviors (e.g., performance, turnover). The authors thus propose that cultural value should act as a moderator rather than an antecedent in the theoretical model of workplace behaviors (Taras et al. 2010). Similarly, Kirkman et al. (2006) suggest that more theories need to be developed to understand the psychological mechanism between cultural values and workplace behaviors. Accordingly, the present study adds collectivism as a moderator to the traditional model of voluntary turnover. The aim of this article is to investigate whether and how collectivism affects turnover intention in the relationship between job attitudes and turnover by examining a sample of Chinese female workers.

Collectivism is one of Hofstede's four cultural values that have been most frequently examined (Oyserman et al. 2002). The need for cooperation among people strengthens in the workplace, so collectivism is an increasingly important factor in the contemporary organization as it reflects a propensity among the employees to be effective group members (Murphy 1999; Perrewe and Spector 2002; Jackson et al. 2006). Therefore, the present study focuses on collectivism, which is based on the assumption that groups bind and mutually obligate individuals (Oyserman et al. 2002). Collectivism "is characterized by a tight social framework in which people distinguish between ingroups and outgroups, they expect their ingroup to look after them,

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and in exchange for that they feel they owe absolute loyalty to it.” (Hofstede 1980, p. 45) Conceptually, collectivism should influence employees’ cognition about quitting a group or organization if their experience and feeling toward the job are controlled. However, the psychological mechanism between collectivism and turnover is still unclear. Meta-analytical results show that the direct relation between the two variables is weak ( $\rho = .05$ ), which suggests that other variables should get involved in their relationship. However, the empirical evidence about the link between collectivism and turnover is still limited. According to the meta-analytical review of collectivism’s consequences by Oyserman et al. (2002) and Kirkman et al. (2006), there is not any research that addresses turnover as the consequence of collectivism. Among 598 studies what Taras et al. (2010) have reviewed on the consequence of collectivism, the limited research linking collectivism to turnover has examined only main effects (Mitchell et al. 2001) and has not tested the buffering hypothesis of collectivism in the turnover model. Therefore, both theoretical and empirical voids necessitate the present study.

The use of the sample of Chinese new-generation female workers also enhances the theoretical and practical implications of the study as there has not been enough research on blue-collar workers and particularly female blue-collar workers. The present study focuses on Chinese female workers who move from the countryside to cities to find a job and constitutes a major part of the Chinese workforce in the background of dynamic economic development and social mobility. Although this particular group has been studied mostly as a socio-economic phenomenon (e.g., Pun 2005), there is less research studying the group’s job turnover from psychological and cultural viewpoints. Female workers play an important role in Chinese manufacturing. The export industry of Shenzhen—China’s biggest foreign trade zone—relies mainly on female migrant labor (Pun 2005). “Female bodies are usually imaged as confirmative and tolerant, which make them more adaptable to factory machine than their male peers” (Pun 2005, pp. 23–24). Recent shortage of manufacturing workers in the Chinese Pearl River Delta area has also drawn the attention of researchers and practitioners to the turnover problem of this labor group. The present study will help to understand Chinese female worker turnover from the perspective of cultural collectivism.

## Theoretical Background and Hypotheses

### Collectivism

Researchers usually conceptualize collectivism as the opposite of individualism (e.g., Hui 1988) especially when contrasting western and eastern cultures (e.g., Kitayama

et al. 1997; Yamaguchi 1994). The former is characterized by interdependence, in-group harmony, interpersonal relationships, and the emphasis on group issues or goals, whereas the latter stands for independence and autonomy, achievement of individual goals and competition.

As a cultural value, collectivism is shaped by both a shared meaning system and an individual’s unique personality (Chao 2000; Taras et al. 2010). However, scholars have continued to use a country ranking system provided by Hofstede as proxies of collectivism versus individualism (Taras et al. 2010). This division causes a significant problem due to great within-group variance in a specific culture (Au 1999). In fact, different regions or subcultures of a single nation can have significantly different cultural values (e.g., Coon and Kimmelmeier 2001; Huo and Randall 1991).

Therefore, Triandis (1995) proposed that both collectivism and individualism exist within cultures in the form of an individual difference and that the full range of individualism and collectivism exists in every culture (Triandis 1995). Collectivism represents the degree to which an individual holds values, attitudes or norms that reflect interdependence and obligations towards harmony within the ingroup, whereas individualism reflects the endorsement of values, attitudes, or norms consistent with independence and primacy of personal needs or preferences (Wasti and Can 2008). Triandis (1995) have also argued that collectivism and individualism represent two different constructs rather than two opposite points on a dimension.

Examining within-nation differences helps to explain the effect of cultural values such as collectivism on organizational processes and outcomes (Taras et al. 2010). In fact, an individual-difference-based view of collectivism has become more common in analyzing organizational behavior, as several studies focus on one culture (e.g., Colquitt 2004; Moorman and Blakely 1995). Other studies use individual-difference approach in multicultural investigation (e.g., Gomez et al. 2000; Kirkman and Shapiro 2001). However, the limited research linking collectivism and turnover has examined only main effects of the former, and has not directly tested the buffering hypothesis of collectivism (Taras et al. 2010). Although Ramesh and Gelfand (2010) compared the relationship between job embeddedness and turnover in Western (individualist) and Eastern (collectivist) nations, they failed to pay attention to individual differences within collectivism. By including collectivism in the turnover model as a moderator, the present study further clarifies the traditional mediation model between job attitudes and voluntary turnover, which will be elaborated in following sections.

### Prior Job Attitudes–Turnover Research

Many traditional turnover models have focused on employees’ attitudes toward their jobs and organizations as

antecedents to the turnover process (e.g., Farrell and Rusbult 1981; Mobley 1977; Steers and Mowday 1981). Almost all process models start with the premise that the active consideration of turnover as an option begins with low levels of job satisfaction and low levels of organizational commitment (Hom and Griffeth 1995; Kammeyer-Mueller et al. 2005). A common model, and the one adopted for purposes of the current study, is to view job attitudes as an antecedent to individual intentions to quit, and in turn, to place intentions to quit as the immediate precursor to actual turnover behavior (Griffeth et al. 2000; Tett and Meyer 1993).

A key issue of the theoretical model of turnover is the degree to which turnover intention mediates attitudinal effects on quitting (Tett and Meyer 1993). However, there is a lot of disagreement on this issue. On the one hand, some research shows that turnover intention completely mediates attitude–turnover relations (Mowday et al. 1984), which is consistent with theories stressing the importance of intent in predicting behavior (e.g., Ajzen and Fishbein 1980). On the other hand, some research supports direct, unique attitudinal effects on turnover independent of intention (e.g., Waters et al. 1976), which raises concerns over the importance of conscious deliberation in the turnover decision (Tett and Meyer 1993).

The mediation of turnover intention in the relationship between job attitudes and turnover has also been challenged due to the weak correlations between job attitudes and turnover. Meta-analysis yielded a corrected correlation between job satisfaction and turnover of  $-.19$  and that between organizational commitment and turnover of  $-.23$  (Griffeth et al. 2000). Although turnover intention keeps relevantly high correlation with turnover of  $.38$  (Griffeth et al. 2000), researchers suggest that only four percent of the variance in the intention–turnover relationship was attributable to artifacts and found wide credibility intervals ( $.00-.77$ ) (Hom and Griffeth 1995).

The challenge to the prediction of turnover prompted scholars to include moderators into the turnover model in order to clarify the relationship between specific antecedents and turnover (e.g., Allen et al. 2005; Crossley et al. 2007; Rhodes et al. 2002). However, less research has been done on the effect of a moderator in a more comprehensive model in which turnover intention mediates the relationship between antecedents and turnover. One exception is the study of Maltarich et al. (2010), which examined whether and how the mediation of job satisfaction in the relationship between cognitive ability and voluntary turnover is moderated by cognition demands of the job. The inclusion of both moderator and mediator in turnover model helps to improve the accuracy of the prediction of turnover (Maltarich et al. 2010). The addition of collectivism in the mediation model of turnover as moderator

also addresses the need to investigate the possibility that personal traits moderate the intention–turnover relationship rather than the direct link between personal traits and turnover (Hom and Griffeth 1995; Skarlicki et al. 1999).

#### The Moderating Role of Collectivism in the Job Attitudes–Turnover Link

Due to previous problematic predictions in the turnover process and the theoretical void in examining the moderating effect of cultural values in turnover model, we propose that collectivism moderates the relationship between job attitudes and turnover intention. There are two reasons why collectivism moderates mainly the relationship between job attitudes and turnover intention. First, meta-analytical results show that actual turnover has stronger connection with turnover intention rather than with job satisfaction and organizational commitment (Hom and Griffeth 1995). Thus, the moderator would be more likely to play a role in linking job attitudes and actual turnover. Second, Taras et al. (2010) found that collectivism is better connected with attitudinal variable than behavior including turnover. This implies that collectivism does not affect actual turnover directly.

Previous literature focuses on the direct link between collectivism and job satisfaction (e.g., Chiu and Kosinski 1999; Kirkman and Shapiro 2001). But it can be inferred from the findings by Crossley et al.'s (2007) that collectivism may be a factor in defining job embeddedness (Ramesh and Gelfand 2010), which plays a key role in the turnover mechanism. We can incorporate collectivism in their definition of embeddedness that is composed of contextual and perceptual forces that bind people to the location, people, and issues at work (Yao et al. 2004). Collectivism relates to people in any group, including work groups, so it naturally becomes an integral element in determining the character and extent of job embeddedness. While collectivism represents more general cultural values and individual attitudes, job embeddedness reflects them in a specific setting in combination with work location and job specifics. In particular, Crossley et al. (2007) found that job satisfaction was negatively related to intent to search for employees with high global job embeddedness, but the link between these variables was insignificant for employees with low global job embeddedness. So, we suggest that collectivism plays a moderating role similar to global job embeddedness in the relationship between job satisfaction and turnover intention. Although people with low levels of collectivism are more likely to quit the job than people with high levels of collectivism, job satisfaction increases its role in turnover behavior when collectivism is high. Thomas and Au's (2002) finding also provides evidence for our assumption about collectivism. They found that job satisfaction was positively related to loyalty (the reverse of quit intention) for

employees with high collectivism levels rather than for those with low collectivism. Therefore, the following hypothesis is proposed:

**Hypothesis 1** Collectivism moderates the relationship between job satisfaction and turnover intention such that job satisfaction influences turnover intention only with high levels of collectivism.

There is more research linking collectivism to organizational commitment than that linking collectivism to job satisfaction because commitment to an organization is assumed to be conceptually close to collectivistic culture in which individuals see themselves as being fundamentally connected with group and others (Markus and Kitayama 1991). Most researchers point to the positive relationships among collectivism and commitment components (e.g., Fischer and Mansell 2009; Kirkman and Shapiro 2001). However, less research has been done on the combining effect of collectivism and commitment on the behavioral outcomes (Taras et al. 2010). Felfe, Yan and Six's (2008) study can provide evidence for the moderating role of collectivism in the relationship between organizational commitment and turnover intention. They found that affective organizational commitment was a stronger predictor for turnover intention in China (typically collectivist culture) than in Germany (typically individualist culture). Their conclusion suggests that collectivism plays a moderating role in the relationship between organizational commitment and turnover intention similar to that in the relationship between job satisfaction and turnover intention. In fact, organizational commitment, especially its affective component, has similar nature to job satisfaction: they represent attitudes toward organization and work. The two variables are usually treated as key triggering mechanisms in the turnover process (e.g., Mobley et al. 1979; Mowday et al. 1982). Therefore, the following hypothesis is proposed:

**Hypothesis 2** Collectivism moderates the relationship between organizational commitment and turnover intention such that organizational commitment influences turnover intention only with high levels of collectivism.

Turnover intention mediates the relationship between job attitudes and turnover in traditional turnover models (e.g., Griffeth et al. 2000; Tett and Meyer 1993). Therefore, we suggest that the moderating role of collectivism in the relationship between job attitudes and turnover intention also influences the mediation of turnover intention in the relationship between job attitudes and actual turnover. Following hypotheses are thus proposed:

**Hypothesis 3** Collectivism moderates the indirect effect of job satisfaction on turnover through turnover intention. Specifically, turnover intention mediates the relationship

between job satisfaction and turnover when collectivism is high and not when it is low.

**Hypothesis 4** Collectivism moderates the indirect effect of organizational commitment on turnover through turnover intention. Specifically, turnover intention mediates the relationship between job satisfaction and turnover when collectivism is high and not when it is low.

## Method

### Sample and Procedure

The sample of the present study comes from female workers of a Chinese electronics company located in Shenzhen – China's first and one of the most successful Special Economic Zones. The company's profile include R&D, advanced manufacturing and sales of 3C electronic products, Hard Disk Drive (HDD) and Solid State Drive (SSD) related products. The participants of the present study are mainly from its HDD head factory. In fact, the company is the second largest HDD head manufacturer in the world. The nature of product of HDD head requires patient and careful work to which female laborers are more adaptable than males.

Participants voluntarily completed a survey during work time. They were asked to identify themselves, so that their responses could be matched with organizational turnover records; thus, the confidential nature of the data was stressed. Seven hundred and eighty-one respondents provided complete data. One and a half year after the survey, turnover data were collected from company records. Approximately 67.8 % of the sample group had voluntarily left the organization according to records and exit interviews. Most of the workers came from the rural areas of Hunan province and nearby regions. They graduated from vocational and technical schools which train blue-collar workers for electronics related assembly lines. These female workers have finished junior high school before attending the vocational and technical schools. In fact, the group has a relatively high educational and professional level among migrant workers who work in coastal industrial zones. The sample's age ranged from 16 to 25 with the mean of 18.90 years ( $SD = 1.50$ ). The workers' tenure ranged from one to 104 months, with the mean of 13.93 months ( $SD = 13.34$ ). Only 8.83 percent of the workers are married. Also, 45.71 percent of them are the oldest child in their family.

### Measures

#### *Collectivism*

Triandis and Gelfand's (1998) 14-item collectivism scale was used to assess participants' collectivism from 1

(disagree very much) to 7 (agree very much). The reliability is .78.

### *Job satisfaction*

The participants were asked to rate their satisfaction toward 26 different job facets (e.g., salary, supervisor, autonomy, training, promotion, working condition, etc.) from 1 (very little) to 5 (very much). Then the composite measure of job facet satisfaction was generated by averaging participants' satisfaction toward the 26 facets. The reliability of the scale is .85.

### *Organizational commitment*

Participants' organizational commitment was assessed with 6 items from Chen and Francesco's (2003) affective organizational commitment scale. Each item is rated from 1 (disagree very much) to 7 (agree very much). The reliability of the scale is .78.

### *Turnover intention*

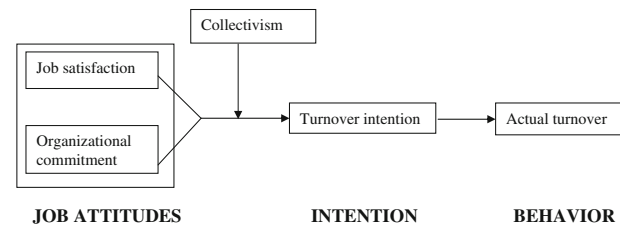
Camman et al. (1979) three-item turnover intention scale was used to assess participants' turnover intention from 1 (disagree very much) to 7 (agree very much). The reliability is .70.

### *Actual turnover*

In general, organizations are primarily concerned with voluntary turnover because they have less control over voluntary than involuntary turnover (Dalton et al. 1982). Even if some forms of turnover are desirable (e.g., losing poorly performing employees), voluntary turnover is generally considered a negative sign in organizational effectiveness (Casio 1991; Dalton et al. 1982; Griffeth and Hom 2001). Therefore we focused on voluntary turnover. Turnover was assessed through organization records a year and a half after the survey. Respondents were coded as 0 for stayers and 1 for voluntary leavers.

### *Control variable*

Demographic variables are usually included as control variables in turnover model (e.g., Mobley et al. 1979; Steers and Mowday 1981). As our sample has a same gender and similar education background, only age, marriage, and tenure are controlled. Due to the repetitiveness of the assembly line job, workers' transfer opportunity is usually decided by their working experiences, which are mostly based on age and tenure (Cheung 2008). Even though they change the job, they still stay in a manufacturing labor market with the same employment rate. Thus perceived alternatives that are



**Fig. 1** A model of the relationship between job attitudes and voluntary turnover

stressed in turnover model (e.g., Griffeth et al. 2000) have not been controlled in the present study. Also, our sample derives from a particular group, migrant workers, who usually go far away from their home in countryside to work in a factory in coastal regions to earn money to support their family (Cheung 2008). Thus, we included following two variables representing workers' family economic status as control variables: 1. *Burden*: a general item was used to rate participants' family economic burden from 1 (very low) to 5 (very high). 2. *Are they the oldest child in the family?* Usually the oldest child in Chinese family, especially in Chinese countryside, needs to take on bigger family economic responsibility. "Yes" is coded as 1 and "no" is coded as 0.

### *Data Analyses*

The conceptual model of the present study is shown in Fig. 1. We tested the hypothesized model in two steps. First, we examined two simple mediation models, one in which the effect of job satisfaction on actual turnover is mediated by turnover intention, and one in which the effect of organizational commitment on actual turnover is mediated by turnover intention. The examination of the two mediation models provides the basis for the test of our moderated mediation hypotheses. Second, we empirically tested the overall moderated mediation hypothesis (Hypothesis 1–4). In all analyses, we entered the control variables of age, marriage, tenure, burden, and whether he or she is the oldest child of the family. We also centered the values of attitudinal variables to avoid multi-collinearity with their product terms (Toothmaker 1994). According to Baron and Kenny (1986), mediation exists if: (1) the independent and dependent variables are significantly related (*c* path); (2) the independent and mediating variables are significantly related (*a* path); (3) the mediator and dependent variable are significantly related (*b* path); and (4) the relationship between the independent variable and dependent variable is nonsignificant or weaker when the mediator is added (*c'* path). A set of multiple logistic regression analysis were used to examine the basic mediation models.

Hypothesis 1–2 are tested with moderated regression analysis (Cohen et al. 2003). Concerning Hypotheses 3–4, we predicted that collectivism would moderate the



**Table 1** Mean, standard deviation, correlations among variables ( $N = 781$ )

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Age	18.90	1.50	–									
2. Marry (1 = yes, 0 = no)	0.09	0.28	0.12**	–								
3. Tenure	13.93	13.34	0.60**	0.17**	–							
4. Burden	3.11	0.96	0.04	0.02	0.10**	–						
5. The oldest (1 = yes, 0 = no)	0.46	0.50	0.05	0.09*	0.06	0.03	–					
6. Collectivism	5.67	0.63	0.01	0.00	−0.04	0.04	0.02	(0.74)				
7. Job satisfaction	2.95	0.43	−0.14**	0.01	−0.18**	−0.03	−0.03	0.15**	(0.85)			
8. Organizational commitment	4.45	1.05	−0.05	0.00	−0.10**	0.10**	0.04	0.31**	0.34**	(0.78)		
9. Turnover intention	3.82	1.17	0.11**	0.01	0.21**	−0.06	0.03	−0.20**	−0.25**	−0.57**	(0.70)	
10. Actual turnover (1 = on job, 0 = off job)	0.36	0.48	0.07*	0.03	0.12**	0.01	0.01	−0.06	−0.09*	−0.15**	0.18**	–

\*  $p < .05$ , two-tailed; \*\*  $p < .01$ , two-tailed

mediation relationship among job attitudes, turnover intention and actual turnover. Assuming this mediation hypothesis receives support, it is plausible that the strength of the hypothesized indirect (mediation) effect is conditional on the value of the moderator (collectivism) or what has been termed conditional indirect effects (Preacher et al. 2007); alternatively known as moderation mediation. To test Hypothesis 3–4, we utilized the SPSS macro designed by Preacher et al. (2007) that provides a method for probing the significance of conditional indirect effects at different values of the moderator.

## Results

### Validity and Reliability Analyses

In order to ensure discriminative validity of different variables, we performed confirmatory factor analyses for different models. We tested a four-factor model in which collectivism, job satisfaction, organizational commitment, and turnover intention were conceptualized as four factors. As expected, we found that the four-factor model,  $X^2(2762.47, N = 781)/df = 2.46$ , CFI = .93, RMSEA = .045, IFI = .93, showed a satisfying fit.

### Correlation Among Variables

Table 1 presents means, standard deviations, and inter-correlations for all variables. The correlation between job satisfaction and actual turnover ( $r = -.09$ ,  $p < .05$ ) was stronger than that between organizational commitment and actual turnover ( $r = -.15$ ,  $p < .01$ ). The correlation between job satisfaction and turnover intention ( $r = -.25$ ,  $p < .01$ ) was stronger than that between organizational

**Table 2** Results of mediation analysis from job attitudes to actual turnover

Baron and Kenny (1986) Steps	<i>B</i>	<i>SE</i>	<i>p</i>
(Job satisfaction–turnover) direct and total effects			
Step 1: Actual turnover on job satisfaction ( <i>c</i> path)	−0.34	0.18	0.05
Step 2: Turnover intention on job satisfaction ( <i>a</i> path)	−0.61	0.09	0.00
Step 3: Actual turnover regressed on turnover intention, controlling for job satisfaction ( <i>b</i> path)	0.30	0.07	0.00
Step 4: Actual turnover regressed on job satisfaction, controlling for turnover intention ( <i>c'</i> path)	−0.17	0.19	0.36
(Organizational commitment–turnover) direct and total effects			
Step 1: Actual turnover on organizational commitment ( <i>c</i> path)	−0.28	0.07	0.00
Step 2: Turnover intention on organizational commitment ( <i>a</i> path)	−0.61	0.03	0.00
Step 3: Actual turnover regressed on turnover intention, controlling for organizational commitment ( <i>b</i> path)	0.24	0.08	0.00
Step 4: Actual turnover regressed on organizational commitment, controlling for turnover intention ( <i>c'</i> path)	−0.14	0.09	0.12

$n = 781$ . Unstandardized regression coefficients are reported. Bootstrap sample size = 5,000

*LL* lower limit, *CI* confidence interval, *UL* upper limit

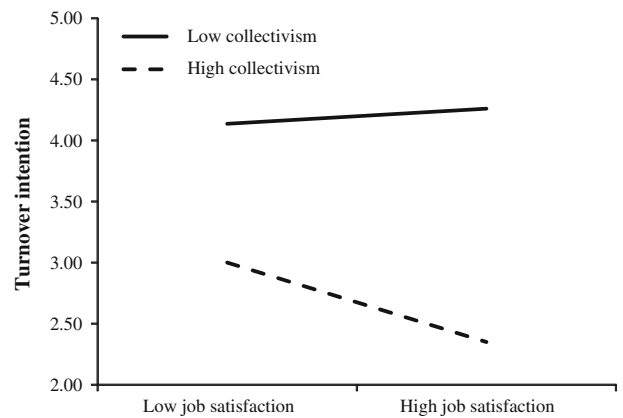
commitment and turnover intention ( $r = -.57$ ,  $p < .01$ ). Turnover intention positively related to actual turnover ( $r = .18$ ,  $p < .01$ ). Collectivism was positively correlated with satisfaction ( $r = .15$ ,  $p < .01$ ) and organizational commitment ( $r = .31$ ,  $p < .01$ ), and negatively correlated with turnover intention ( $r = -.20$ ,  $p < .01$ ).

**Table 3** Test of overall model (from job satisfaction to turnover)

Variable	<i>b</i>	SE <i>b</i>	<i>t</i>	<i>p</i>
Mediator variable model (Step 1): Turnover intention				
Job satisfaction	−0.54	0.09	−5.80	0.00
Collectivism	−0.29	0.06	−4.56	0.00
Job satisfaction * collectivism	−0.40	0.13	−3.06	0.00
Age	−0.04	0.03	−1.17	0.24
Marry (1 = yes, 0 = no)	−0.04	0.14	−0.26	0.79
Tenure	0.02	0.00	4.76	0.00
Burden	−0.09	0.04	−2.24	0.03
The oldest (1 = yes, 0 = no)	0.06	0.08	0.76	0.45
Dependent variable model (Step 2): Voluntary turnover				
Turnover intention	0.06	0.02	3.99	0.00
Job satisfaction	−0.03	0.04	−0.80	0.42
Collectivism	−0.02	0.03	−0.70	0.49
Job satisfaction * collectivism	−0.05	0.06	−0.84	0.40
Age	0.00	0.01	0.06	0.96
Marry (1 = yes, 0 = no)	0.03	0.06	0.45	0.65
Tenure	0.00	0.00	1.69	0.09
Burden	0.01	0.02	0.40	0.69
The oldest (1 = yes, 0 = no)	0.00	0.03	0.01	0.99
Level of collectivism	Indirect effect	SE	<i>Z</i>	<i>P</i>
Conditional indirect effects assuming normal distribution (Step 3)				
−1 SD	−0.02	0.01	−1.93	0.06
Mean	−0.03	0.01	−3.26	0.00
+1 SD	−0.05	0.01	−3.36	0.00

### Tests of Mediation

Table 2 presents the results of the mediational relationship among job attitudes, turnover intention, and actual turnover. As to job satisfaction, it was negatively associated with actual turnover (*c* path,  $B = -.34$ ,  $SE = .18$ ,  $p < .05$ ) and turnover intention (*a* path,  $B = -.61$ ,  $SE = .09$ ,  $p < .00$ ). Turnover intention was positively associated with actual turnover (*b* path,  $B = .30$ ,  $SE = .07$ ,  $p < .00$ ). Job satisfaction was not significantly associated with actual turnover (*c'* path,  $B = -.17$ ,  $SE = .19$ ,  $p > .10$ ) when controlling turnover intention. Therefore, turnover intention fully mediated the relationship between job satisfaction and actual turnover. As to organizational commitment, it was negatively associated with actual turnover (*c* path,  $B = -.28$ ,  $SE = .07$ ,  $p < .00$ ) and turnover intention (*a* path,  $B = -.61$ ,  $SE = .03$ ,  $p < .00$ ). Turnover intention was positively associated with actual turnover (*b* path,  $B = .24$ ,  $SE = .08$ ,  $p < .00$ ). Organizational commitment was not significantly associated with actual turnover (*c'* path,  $B = -.14$ ,  $SE = .09$ ,  $p > .10$ ) when controlling turnover

**Fig. 2** Interaction effect between job satisfaction and collectivism on turnover intention

intention. Therefore, turnover intention fully mediated the relationship between organizational commitment and actual turnover.

### Tests of Moderated Mediation

Table 3 presents the results for hypotheses 1 and 3. The first step shows that job satisfaction ( $b = -.54$ ,  $p < .01$ ), collectivism ( $b = -.29$ ,  $p < .01$ ) and the interaction between job satisfaction and collectivism ( $b = -.40$ ,  $p < .01$ ) significantly predicted turnover intention. We plotted this interaction following Aiken and West (1991). As shown in Fig. 2, turnover intention did not change much with job satisfaction when collectivism is low, while turnover intention of those with high job satisfaction was much higher than that of those with low job satisfaction when collectivism was high. Thus Hypothesis 3 is confirmed. The second step shows that only turnover intention ( $b = -.06$ ,  $p < .01$ ) significantly predicted actual turnover. Step 3 and 4 show that the indirect effect of job satisfaction on actual turnover was significant only when collectivism is high (indirect effect =  $-.05$ ,  $SE = .01$ ,  $p < .01$ ), thus providing support for Hypothesis 3.

Table 4 presents the results for hypotheses 2 and 4. The first step shows that organizational commitment ( $b = -.61$ ,  $SE = .03$ ,  $p < .00$ ) and the interaction between organizational commitment and collectivism ( $b = -.15$ ,  $SE = .05$ ,  $p < .00$ ) significantly predicted turnover intention. We plotted this interaction following Aiken and West (1991). As shown in Fig. 3, although organizational commitment negatively related to turnover intention no matter collectivism is low or high, the tendency is stronger when collectivism is high than low, thus confirming Hypothesis 2. The second step shows that only turnover intention ( $b = .05$ ,  $SE = .02$ ,  $p < .01$ ) significantly predicted actual

**Table 4** Test of overall model (from organizational commitment to turnover)

Variable	<i>b</i>	SE <i>b</i>	<i>t</i>	<i>p</i>
Mediator variable model (Step 1): turnover intention				
Organizational commitment	−0.61	0.03	−17.75	0.00
Collectivism	−0.06	0.06	−1.05	0.29
Organizational commitment * collectivism	−0.15	0.05	−3.09	0.00
Age	−0.02	0.03	−0.73	0.47
Marry (1 = yes, 0 = no)	−0.06	0.12	−0.53	0.60
Tenure	0.02	0.00	4.83	0.00
Burden	−0.02	0.04	−0.57	0.57
The oldest (1 = yes, 0 = no)	0.10	0.07	1.47	0.14
Dependent variable model (Step 2): voluntary turnover				
Turnover intention	0.05	0.02	2.97	0.00
Organizational commitment	−0.03	0.02	−1.39	0.17
Collectivism	−0.01	0.03	−0.37	0.71
Organizational commitment * collectivism	0.02	0.02	0.63	0.53
Age	0.00	0.01	0.16	0.87
Marry (1 = yes, 0 = no)	0.03	0.06	0.42	0.67
Tenure	0.00	0.00	1.73	0.08
Burden	0.01	0.02	0.50	0.61
The oldest (1 = yes, 0 = no)	0.00	0.03	0.07	0.94
Level of collectivism	Indirect effect	SE	<i>Z</i>	<i>P</i>
Conditional indirect effects assuming normal distribution (Step 3)				
−1 SD	−0.03	0.01	−2.86	0.00
Mean	−0.03	0.01	−2.93	0.00
+1 SD	−0.04	0.01	−2.91	0.00

**Fig. 3** Interaction effect between organizational commitment and collectivism on turnover intention

turnover. The subsequent tests of the conditional indirect effect (step 3 and 4) show that the indirect effect of organizational on actual turnover was negative and significant

at low (indirect effect =  $-.03$ ,  $SE = .01$ ,  $p < .01$ ) and high (indirect effect =  $-.04$ ,  $SE = .01$ ,  $p < .01$ ) levels of collectivism. Thus, Hypothesis 4 was not supported.

## Discussion

Employees' turnover in organizations is one of the most studied topics. Paradoxically, in this global economy, there are fewer studies that predict turnover from the perspective of cultural values. We heeded the call from a recent meta-analytical review for considering the moderating effects of cultural values in organizational behavioral outcomes (e.g., Taras et al. 2010). Hence, we examined a moderated mediation model in which the indirect effects of job attitudes (job satisfaction and organizational commitment) on voluntary turnover through turnover intention are moderated by collectivism in a sample of Chinese female workers. We found that collectivism may prohibit the decision-making process that often precedes volitional separation and can be meaningfully integrated into traditional models of turnover. In particular, collectivism plays a moderating role in the relationship between job satisfaction and turnover intention in the same way as it does in the relationship between organizational commitment and turnover intention. Both job satisfaction and organizational commitment play a more determining role in predicting turnover intention when collectivism is high rather than low (Hypothesis 1–2). However, collectivism moderates only the indirect effect of job satisfaction on voluntary turnover through turnover intention (Hypothesis 3). Only hypothesis 4 was not confirmed.

The results suggest that highly collectivist and satisfied people are less likely to quit. In fact, they confirm our assumption that collectivism plays the same role as job embeddedness does in the relationship between job satisfaction and turnover (Crossley et al. 2007). Mitchell and Lee (2001) posited that job embeddedness prohibits turnover by absorbing shocks, which could lead to turnover outside the mechanism of job satisfaction (Lee and Mitchell 1994). Although there has not been research linking collectivism to job embeddedness, they should be conceptually related due to their common reflection of the attachment to and the desire to be one of a group. Therefore, the present study suggests that collectivism as a cultural value may also inhibit the influence of shocks on turnover. However, future research still needs to empirically link job embeddedness and collectivism and compare their specific roles in turnover model.

Our study also demonstrates that the interaction between collectivism and job satisfaction is stronger than that between collectivism and organizational commitment in terms of their impact on turnover intention. In fact,



organizational commitment affects turnover only a little more on high levels of collectivism than on low levels. Consequently, job satisfaction has barely any effect on turnover intention when collectivism is low. In addition, the interaction between collectivism and job satisfaction does not have any indirect effect on actual turnover. The finding may suggest that collectivism has a different relation with job satisfaction compared to the relation with organizational commitment in influencing turnover. Although organizational commitment represents affection and attitude toward workplace, it also includes a feeling to attach to a group and to be one of its members (Meyer and Herscovitch 2001). From this point of view, organizational commitment is conceptually closer to collectivism than job satisfaction. That is why most scholars propose collectivism as an antecedent of organizational commitment (e.g., Fischer and Mansell 2009; Meyer et al. 2012; Kirkman and Shapiro 2001; Wasti and Can 2008). Our study shows that organizational commitment has higher correlation with collectivism than job satisfaction ( $r = .31$  vs.  $r = .15$ ). Thus, collectivism plays a more important role as antecedent of organizational commitment than as a moderator of commitment's effect on behavioral outcomes. Therefore, by including collectivism as moderator in the classical turnover model, the study illustrates the difference between job satisfaction and organizational commitment in triggering withdrawal cognition and behaviors.

### Theoretical Contributions

Our theoretical framework and empirical analysis lead to several findings in the relationship between cultural value and turnover. The first theoretical implication is that both job attitudes–turnover relationship and cultural value–turnover relationship are more complex than previously described. By combining the two links in the same moderated mediation model, the study explains why the classical mediation model of job attitudes–turnover intention–actual turnover could not accurately predict turnover in an increasingly global economy. It also defines the role of collectivism in the turnover process. The study answers the call to improve the predictability of turnover model by including personal traits as moderator (Hom and Griffeth 1995; Maltarich et al. 2010; Skarlicki et al. 1999). It also addresses the need to include cultural value as moderator in organizational behaviors (Taras et al. 2010; Kirkman and Shapiro 2001).

The second theoretical implication is that collectivism makes a difference in understanding the reasons why employees leave an organization. Our findings indicate that the job attitudes–turnover relationship may not be consistent across employees with different levels of collectivism. This

portion of the hypothesized mediation is especially important because it suggests a novel boundary condition on the job attitudes–turnover relationship. The study complements previous research that has compared the differences of job attitudes–turnover relationship between individualist and collectivist cultures but never examined personal difference in collectivism as a moderator in the research (e.g., Felfe et al. 2008; Ramesh and Gelfand 2010).

Finally, the present study also adds to the body of research on the nature of job attitudes by linking them with cultural values (e.g., Meyer et al. 2012; Taras et al. 2010; Kirkman and Shapiro 2001). For example, recent study suggests that cultural psychological characteristics are important for the understanding of workplace commitment (e.g., Meyer et al. 2012; Chen and Wang 2007; Chen et al. 2012). The present study furthers such efforts by combining organizational commitment with collectivism in the prediction of turnover. By comparing the moderating role of collectivism in the job satisfaction–turnover relationship with its moderating role in the organizational commitment–turnover relationship, the present study also illustrates the difference between organizational commitment and job satisfaction as attitudinal antecedents in triggering the withdrawal process.

### Practical Implications

The results have also implications for policy-makers and managers in global economy. As more and more multinational companies (MNCs) are outsourcing manufacturing to developing countries to take advantage of inexpensive labor (Ahmad and Schroeder 2003), the study provides recommendations on how to reduce labor turnover especially female labor turnover in the manufacturing industry. Turnover has broad consequences for the economy, because it leads to labor shortage which in turn increases labor cost (Jiang et al. 2009). Therefore, by reducing turnover, companies and government can contain the fast growth in labor costs. For a long time, China has relied on its competitive labor costs, but this situation is rapidly changing (Jiang et al. 2009). One can argue that high-labor cost is not negative phenomenon since workers can improve their living standards. However, when labor costs increases gets out of control, the whole economy and the job market in particular will suffer the consequences. Therefore, sustainable job environment and reduced turnover are beneficial both to the labor and businesses. Our research results contribute to better understanding of job environment and turnover problems by focusing on the role of collectivism. One important conclusion of this study is that high collectivism can improve job sustainability and security. Therefore, the efforts for government and

businesses should turn attention to improving workplace atmosphere and collectivist values.

The results emphasize the importance of collectivism in limiting female workers' turnover. So the first practical implication is in the area of job recruitment policy. For example, managers specifically could target collectivism attitude as one of the criteria in their recruitment, because stronger collectivist disposition will make employment more sustainable and predictable. Another practical implication is for the team management which could aim at nurturing sound collectivist environment. For example, the companies can develop a long-term training program to improve collectivist attitudes and environment through education and social activities.

### Limitations and Future Direction

There are several limitations in this research that point to possible future study. First, we examined collectivism only in a typical collectivist country, China. Although previous research emphasized the necessity to examine nation-wide differences in cultural values (Taras et al. 2010), it is also important to examine the moderating role of collectivism in turnover process in a non-collectivist country (e.g., America and Canada) for the generalizability of the model. Second, although the present study tries to contribute to turnover literature by focusing on female and blue-collar worker sample, future research should also include female white-collar sample and male blue-collar sample as comparison groups to better comprehend cultural collectivism of target group (female blue-collar workers) and its influence in turnover process. In addition, it would be more helpful to develop a generalized theoretical model by using a diversified group sample than by using a highly identical group sample. Third, we assessed collectivism, job satisfaction, organizational commitment, and turnover intention by self-report within one period. Common method variance may have inflated the observed relationships. The objective measurement of our dependent variable (actual turnover behavior) addresses this concern. However, future research employing longitudinal designs can provide greater insights to the temporal dynamics in which collectivism moderates the turnover process.

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