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Author(s)	Zhao, Dong Mei; Yamaguchi, Hiroyuki
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## **Relationship of Challenge and Hindrance Stress with Coping Style and Job Satisfaction in Chinese State-Owned Enterprises**

Dong Mei ZHAO (*Faculty of Human-Environment Studies, Kyushu University*)

Hiroyuki YAMAGUCHI (*Faculty of Human-Environment Studies, Kyushu University*)

This study aimed to categorize stresses prevalent in Chinese state-owned enterprises and to investigate the relationships among stresses, coping styles and job satisfaction. Data ( $n = 549$ ) were collected from three state-owned enterprises in Cang Zhou, He Bei Province, Mainland China. The result of a factor analysis yielded the following three factors: enterprise stress, interpersonal stress, and challenge stress. In order to test the moderator effect of problem-focused coping and emotion-focused coping on the relationship between the stresses and job satisfaction, a hierarchical regression analysis was used to demonstrate the main effects and significant interactions. The results were as follows: (a) Enterprise stress and interpersonal stress, which were considered to be hindrance stresses, had a negative effect on job satisfaction; (b) Challenge stress and problem-focused coping had a positive effect on job satisfaction. (c) Two significant interactions existed: enterprise stress  $\times$  emotion-focused coping and interpersonal stress  $\times$  problem-focused coping. A simple main effect test revealed that the negative effect of enterprise stress on job satisfaction was more apparent when emotion-focused coping was high, and that the negative effect of interpersonal stress on job satisfaction was more apparent when problem-focused coping was high.

Keywords: Challenge stress, Hindrance stress, Coping style, Job satisfaction.

### **Job stress had its adverse effects**

The potential for stress exists when a person wishes to obtain something from the environment but cannot achieve it. Occupational stress exists in people's recognition of their inability to cope with demands relating to work, and in their subsequent experience of discomfort. This is particularly the case in situations where there are constraints on how they can cope and they receive little social support for coping.

In the past two decades, there has been an increase in theoretical and practical research on job stress in Western countries because of the increases in workload. Job stress has been an increasing problem not only for individuals but also for organizations. For employees, there are costs at a personal level, in terms of physical, psychological, and behavioral symptoms (e.g., high rates of tension, anger, anxiety, depression, mental fatigue, and sleep disturbances, etc.). The cost of unmanaged stress is severe as an increased risk of morbidity and mortality. At an organizational level, costs are considered in terms of absenteeism, loss of productivity, and health care consumption. The costs of occupational stress have been variously estimated. The International Labour Organization (ILO) reported that inefficiencies arising from

occupational stress may cost up to 10% of a country's GNP (Midgley, 1997).

### **Why were Chinese state-owned enterprises chosen as subjects?**

Although there are no statistical records of monetary loss due to stress, job stress has been noted as an increasing problem in China which is undergoing enormous economic and social changes. Over the past decade, China has shifted from a planned economy to a market economy and even accessed the WTO (World Trade Organization) in 2001. State-owned enterprises play a major role in the Chinese economy. In the year 2007, these enterprises contributed up to 87% of the tax revenue in China (China Xinhua news agency, 2007). In order to adapt to international competition, several reforms were implemented in state-owned enterprises, for example, there were reforms in the employment system (employees no longer enjoyed life-long employment), promotion system (promotions were no longer restricted to down-up), and salary system (salaries of employees now vary; earlier, they received almost equal salaries). Employees in many state-owned enterprises are facing an unstable working environment due to the restructuring that has been implemented in their companies. Employees not only have to deal with

the conflicts that occurred during the reformation, but are also required to acquire new knowledge and skills in order to cope with newer challenges in the future. Owing to the characteristics of state-owned enterprises and reforms introduced, the number of stresses that employees of state-owned enterprises encountered is much higher than it was before. We hereby introduce some examples:

State ownership is often correlated with politicization, inefficiency, and a waste of resources. The performance of state-owned enterprises is viewed as abysmal and as having a pernicious effect on the economy as a whole. State-owned enterprises have been considered to absorb government funds because of their huge losses.

There are three main burdens for Chinese state-owned enterprises: high debts, superfluous staff, and social function (Zhang, 2002). There is urgent need to adopt good management techniques in order to improve performance in state-owned enterprise.

The loss of excellent employees is very common in state-owned enterprises. On the contrary, 70% of the high-level managers and core technical staff in joint corporations and private corporations earlier worked for state-owned enterprises. A research report on Chinese state-owned enterprises that their assets were worth over five-million gen indicated that 30.5% of state-owned enterprises have been threatened with a crisis because of the loss of employees. Moreover, 42% of state-owned enterprises have been threatened with a crisis due to the loss of middle and high-level managers (Beijing Lanhong Marketing research corporation, 2003). This phenomenon reflected that the structure of state-owned enterprises is not fully developed (e.g., with regard to company strategy, organizational culture, seniority).

The social and economic status of the employees of state-owned enterprises has decreased over the past decade. On the one hand, the income of government employees increased dramatically in the past 10-15 years; these are likely to increase further because of the following principle: "high salary for clean government". On the other hand, many employees at top-level positions in state-owned enterprises have quit and moved to

joint and private enterprise.

Although organizational psychology and stress research has a long history in Western countries, it is still a new field of psychology in China and there are few empirical researches on job stress. This probably reflects the fact that it is difficult for psychological researchers to conduct researches on the employees of state-owned enterprises. On the other hand, it also reflects that state-owned enterprises ignore the necessity of conducting empirical research. It is indeed plausible and necessary to conduct research that focuses on stress in Chinese state-owned enterprises. This study aims to provide theoretical and practical suggestions for stress management and human resource management for both individuals and organizations.

## **Two theories of job stress**

**Yerkes-Dodson Law: Based on quantity of job stress** In 1908, the beneficial and deleterious effects of stress on performance and efficiency were first described by Drs. Robert M. Yerkes and John D. Dodson of the Harvard Physiological Laboratory. They explored the relationship between the strength of stimulus (threat of electrical shock-demand) and task acquisition (choosing the right box performance) in mice. Based on the results of this research, the Yerkes-Dodson Law was developed. The law indicates that increasing stress is beneficial to performance until some optimum level is reached, after which performance will decline; thus, performance is characterized by an inverted U diagram. The inverted U is often drawn with stress or arousal on the horizontal axis and performance on the vertical axis.

Through popular applications of the Yerkes-Dodson Law, common management practice assumes that a "reasonable" amount of pressure, anxiety, or fear in the environment leads to higher performance among employees than if stress is not present. The application of this assumption encourages managers to attempt to maintain stress at optimal levels in order to improve performance rather than endeavoring to minimize stress.

It is not at all clear whether the findings of a

study conducted on mice should be applied to human work environments. The word “stress”, “arousal”, and “performance” never occur in the original paper. Fevre, Matheny, & Kolt (2003) suggested that there appears to be little or no evidence in the occupational stress literature to support the assertion that a reasonable amount of stress, pressure or anxiety at the workplace leads to high performance as suggested by the Yerkes-Dodson law. It is probable that interventions for stress reduction and physical, psychological or performance improvement will be ineffective.

### **Challenge and hindrance stress: Based on quality of job stress**

Seyle (1984) was the first to use the terms “stressor” and “stress”, and he also suggested that distinctions between types of stress should not be based on the level of demand. Further, he differentiated between eustress and distress. However, until now, this distinction has received very little attention in literature. Lazarus & Folkman (1984) posited that people appraise stressful situations as either potentially threatening or potentially promoting mastery, personal growth, or future gains. They labeled the situations as “threats” and “challenge”. Cavanaugh, Wendy, Mark, & John (2000) found two factors underlying scores on items from several popular measures of stress. One factor included demands such as high workload, tight deadlines, job scope, and high responsibility. This factor was labeled “challenge stress” because it included stressful demands that employees perceived as obstacles that needed to be overcome in order to enhance learning and achieve. The other factor included demands such as organizational politics, red tape, role ambiguity, and concerns about job security. This factor was labeled “hindrance stress” because it included stressful demands that employees perceived as unnecessarily thwarting personal growth and goal attainment. They suggested that challenge-related self-reported stress is positively related to job satisfaction, whereas hindrance-related self-reported stress is negatively related to job satisfaction. This

dichotomy is important in any discussion of stress, particularly occupational stress and interventions designed to relieve or reduce occupational stress.

Past research on challenge-hindrance stress has mainly focused on the relationship between stresses and job performance. Boswell, Olson-Buchanan, & Lepine (2004) demonstrated that people distinguish challenge stress from hindrance stress and that the two types of stress have different relationships with important occupational criteria. Lepine, Podsakoff, & Lepine (2005) suggested that hindrance stress had a negative direct effect on performance; besides, they had negative indirect effects on performance through strains and motivation. Challenge stress had a positive direct effect on performance; besides, they offset indirect effects on performance through strains (negative) and motivation (positive).

### **Coping style and its moderating effects**

**Coping style and its categories** Coping refers to efforts to manage environmental and internal demands and conflicts among demands. While dispositional styles are more likely to moderate linkages between environmental conditions and individual reactions, specific behaviors may function as mediators between variables. In this research, coping style was chosen as a moderating variable. We asked individuals to indicate in general terms how they use different coping strategies when confronted with a stressful situation. This approach generates information on how individuals report that they typically cope, capturing a style, pattern or disposition toward coping in a particular manner.

Some people use their intelligence to deal with stresses. They can control their emotions, analyze the stress, and attempt to solve the problem. This method can not only eliminate the source of stress, but also help in the accumulation of experiences with regard to solving problems. This method is called problem solving. Some people manage stress by seeking social support, because they believe one's ability is limited. By seeking help from parents, friends, and supervisors, it becomes easier to overcome difficulties. This method not only releases emotional anxiety, but sometimes

also provides an actual solution to the problem in question. This method was called seeking help. Some people managed to change their perception of the situation, and hence they could better adapt to the environment. This method is called changing one's view. Some people attempt to control their emotion by participating in sports or creative activities, therefore forgetting negative emotions, such as disappointment, regret, sorrow, anger etc. This method is called changing one's mood. These four types of coping demonstrate positive attitudes when dealing with a problem. Others attempt to withdraw from painful circumstances, so that the problem can be forgotten temporarily. In this method, no attempt is made to deal with the problem; however, it cannot disappear by itself, and the pressure will remain. This method is called withdrawal. Some people complain that they are not competent enough to overcome challenges imposed on them. This would cause low self-esteem and low self-confidence. This method is called accusing oneself. Some people wish that problems will resolve themselves over time in the same manner that one wakes up from a nightmare in the morning. We refer to this method as unrealistic. It is called fantasy. Some people strive to justify their failure or mistake by making an excuse which could decrease emotional anxiety. However, this coping strategy can obstruct individuals from taking a positive step toward the resolution of a problem by making them ignore the reality. This method is called rationalization. These four types of coping demonstrate negative attitudes when dealing with a problem.

Stress does not result directly from the source of pressure itself; rather, it is caused by the perception of that pressure. The interaction of individual and situational factors determines coping strategies. An effective coping strategy leads to the reduction of stress, resolution of a problem, and eventually to the mental well-being of an individual. On the other hand, an ineffective coping strategy may cause psychological problems.

### **The moderating effect of coping style**

A moderator variable is defined as any variable

that affects the relationship between two other variables. Moderator variables played a very important role in the organizational sciences. It is unrealistic to assume that all people are impacted by all things in the same manner. Individual differences should be considered. As a moderator between stress and performance, coping style can influence the direction and intensity of stress, thereby moderating the relationship between the stress and performance.

The appraisal of stress as challenge stress or hindrance stress influences emotions, which in turn influence how a person copes with stress. Challenge stress, because they are appraised as having the potential to promote personal gain or growth, trigger positive emotions and active or problem-focused coping. If the stress was coped with successfully, the person will experience a sense of personal accomplishment and perhaps receive formal recognition. Hindrance stress, because they are appraised as having the potential to harm personal growth or gain, trigger negative emotions and passive or emotion-focused coping. In such a case, a person believes that no reasonable effort will be adequate to cope with the stress; hence, no potential outcome is desired. Empirical research has shown that problem-focused coping is linked to increases in job satisfaction (Lina, Jose, Gloria, & Martin, 2006; Rick & Guppy, 1994). Although emotion-focused coping has been shown to be effective in some situations such as the death of a relative or parents, or a divorce, or in the case of acute stress such as surgery, it was not effective in response to the routine and daily stresses encountered in work settings.

However, there have been few researches on the role of coping as a stress moderator variable between challenge, hindrance stress and job satisfaction in stress literature, particularly in Mainland China. The purpose of this article was to investigate how stresses, interaction of stress and coping strategies affected job satisfaction.

### **Job satisfaction**

Job satisfaction is an individual's general attitude toward the job, which may either be positive or negative. It is usually a function of the

difference between what a person desires from a job and what he or she obtains from it. Research results not only provide moderate support for the view that job effort causes satisfaction (Schwab & Cumming, 1970) but also indicate that a high level of job satisfaction does have a positive impact with regard to reducing turnover, absenteeism, tardiness, accidents, grievances, and strikes (Locke, 1970).

Research reviews have revealed that psychological strains are strong correlates of work-related stress (Hart & Cooper, 2001; Jex & Beehr, 1991). The most commonly used measure of psychological strain is job satisfaction (Judge, Parker, Colbert, Heller, & Ilies, 2001).

### **Hypotheses**

Based on the previous literature, a number of specific hypotheses for the study are proposed as follows:

There are many differences between China and Western countries, for example, with regard to economy, social systems and culture. Past research was mainly conducted in developed Western countries. Due to individual and organizational characteristics, job stress may differ widely between the employees of Chinese and Western enterprises.

Hypothesis 1: A positive relationship between challenge stresses, problem-focused coping and job satisfaction is expected. In particular, employees reporting high levels of challenge stresses and problem-focused coping are expected to experience greater job satisfaction than those reporting lower levels of these factors.

Hypothesis 2: A negative relationship is expected among hindrance stresses, emotion-focused coping, and job satisfaction. In particular, employees reporting high levels of hindrance stresses and emotion-focused coping are expected to experience less job satisfaction than those reporting lower levels of these factors.

Hypothesis 3: Coping is expected to moderate the relation between stresses and job satisfaction. In particular, challenge stresses will be positively related to job satisfaction among those reporting a high level of problem-focused coping but will be negatively related to job satisfaction among those

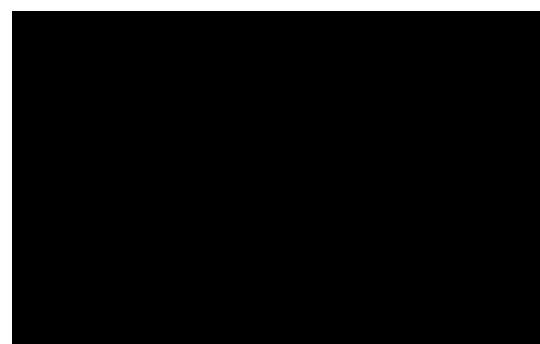
reporting a high level of emotion-focused coping. Hindrance stresses will be positively related to job satisfaction among those reporting a high level of emotion-focused coping but will be negatively related to job satisfaction among those reporting a high level of problem-focused coping.

## **Method**

### **Participants**

Questionnaires were distributed (with a small gift pen) to 600 employees in three State-owned enterprises in Cang Zhou, He Bei Province, and Main-land China. These enterprises were the He Bei Cang Zhou Chemical Product Corporation, the He Bei Cang Zhou Fertilizer Corporation, and the Cang Zhou branch of the Chinese railway. Missing data for one or more items reduced this number to 549 (91.5%). These three enterprises were good representatives of the State-owned Enterprises in Cang Zhou and He Bei Province. The distribution of samples is illustrated in Table 1.

Table 1 Distribution of participants



### **Measures**

**Stress** Based on interviews with employees of State-owned enterprises and items developed in prior studies (Gao, Chen, & Pei, 2004; Ma & Ling, 2004; Pu, Yang, & Feng, 2004; Shu & Liao, 2003), a questionnaire comprising 54 items was developed. The participants indicated their stresses on a Likert scale ranging from 1 (completely disagreeable) to 5 (completely agreeable). After performing a factor analysis, 14 items with weak factor loadings were discarded. The coefficients for factor 1, 2, and 3 were .90, .81,

and .73 respectively. The distribution of participants on this scale followed normal distribution.

**Coping** The "Simple coping style Questionnaire" developed by Xie (1998) from the First Military Medical University of China was used for the study. Participants indicated the frequency with which they adopted coping strategies on a Likert scale ranging from 0 (never adopt) to 3 (often use). Factor analysis revealed that 4 items with weak factor loadings were discarded. The remaining 16 items were categorized into 2 factors. The coefficients for factor 1 (10 items: e.g., looking for different solutions), and factor 2 (6 items: e.g., trying to forget the whole matter) was .73. The distribution of participants on this scale followed normal distribution.

**Job Satisfaction** A questionnaire comprising 18 items (e.g., I am satisfied with the work conditions, welfare and so on.) was developed. The participants indicated their degree of job satisfaction on a Likert scale from 1 (completely disagreeable) to 5 (completely agreeable). After performing a factor analysis, 4 items with weak factor loadings were discarded. The remaining 14 items were categorized into 3 factors. The coefficients for factor 1 (6 items: e.g., I am satisfied with my salary), factor 2 (5 items: e.g., I am satisfied with the workload), and factor 3 (3 items: e.g., I am satisfied with the cooperation of my colleagues) were .77, .80, and .68 respectively. In this study, the three factors were combined into a single index as general job satisfaction. The distribution of participants on this scale followed normal distribution.

### **Data analysis**

The statistical procedure was carried out with the statistical software SPSS 11.5. In order to test the hypotheses, factor analysis of stress and hierarchical regression analysis were conducted. Hierarchical regression analysis was carried out for the dependent variable (job satisfaction) in which the relevant variable blocks were added in the following order. At step 1, three types of stresses (enterprise stress, interpersonal stress, and challenge stress) were entered

simultaneously. At step 2, two types of copings (problem-focused coping and emotion-focused coping) were entered simultaneously. At step 3, the interaction terms of stress and coping were entered (enterprise stress  $\times$  problem-focused coping, enterprise stress  $\times$  emotion-focused coping). Since stresses are of three types, hierarchical regression analysis was conducted thrice.

## **Results**

### **Factor analysis of Stressor (Table 2)**

After performing a factor analysis, 14 items were eliminated; they included four aspects: work assignment, work conditions, conflict between work and family, and ability deficiency. The remaining 40 items were categorized into three groups.

The first factor that emerged had high positive loadings on 10 aspects: future of corporation, job security, salary and welfare, promotion, on-the-job training, communication system, performance assessment, organization culture, red tape in the organization, and social status of the enterprise. This factor was named enterprise stress.

The second factor displayed high positive loadings on three aspects: role ambiguity, role conflict and interpersonal conflict. This factor was named interpersonal stress.

The third factor had positive loadings on four aspects: workload and work emergency, work responsibility, intensity of competition in the enterprise, role expectation from self, and families and friends. This factor was named challenge stress.

### **Inter-correlation of main variables (Table 3)**

Table 3 showed that significant correlations existed between variables with a few exceptions. Among the correlations, strong relationships existed between enterprise stress and job satisfaction, interpersonal stress and job satisfaction.

### **Hierarchical regression analysis was conducted thrice (Table 4)**

In order to test the moderator effect of problem-focused coping and emotion-focused

Table 2 Results of factor analysis of stress (Maximum likelihood method: and Varimax solution )

	Item	Factor		
		1	2	3
Enterprise stress	10 The future of enterprise is uncertain	.71	-.25	-.05
	26 The welfare scheme is not good	.70	-.19	-.03
	21 I experience a lack of job security	.68	-.21	-.17
	9 The future of the enterprise is not bright	.67	-.27	-.10
	13 Performance assessment is unreasonable	.64	.05	.10
	25 Employee's suggestions are ignored	.64	.05	-.04
	11 The management system is unreasonable	.64	-.02	.13
	19 The salary system is unfair	.60	-.04	.12
	17 It is difficult to obtain a promotion	.55	-.06	-.04
	27 I receive no on-the-job training	.54	-.06	-.03
	12 Red-tape is problematic	.53	.03	.01
	18 The salary is unsatisfactory	.50	.06	.23
	14 There is a lack of communication between different sections	.49	.15	.12
	22 I cannot make any decision	.47	.15	-.06
	24 There is a lack of opportunities to express ideas	.46	.27	-.15
	16 The competition for promotions is fierce	.43	-.01	.14
Interpersonal stress	23 I always have to follow instructions	.42	.22	-.10
	40 The enterprise is not highly appraised	.42	.01	.13
	33 My value can not be expressed	.39	.31	-.09
	20 There exists the threat of unemployment	.39	-.04	-.06
	39 The organizational culture is not good	.37	.06	.15
	44 There are conflicts in the orders from different supervisors	-.03	.64	.16
	53 The supervisor is incompetent	.20	.61	-.06
	52 The supervisor is arbitrary	.29	.58	-.05
	43 Orders from different supervisors are not consistent	-.06	.57	.18
	41 The job profile is unclear	-.24	.56	-.08
Challenge stress	42 Work responsibility and rights are unclear	-.19	.55	-.04
	51 A personal relationship with the supervisor is valued	.22	.55	-.11
	54 Subordinates does not follow my instructions	-.17	.53	.02
	49 There is a lack of team--spirit among employees	.02	.43	-.04
	48 There is a sense of indifference among colleagues	-.01	.42	-.08
	46 The expectations from families and friends are high	-.09	.01	.54
	45 The expectations from supervisors and colleagues are high	-.15	.07	.53
	5 I am often required to accomplish tasks within strict deadlines	.06	.01	.53
	3 The workload is high	.04	-.06	.50
	47 I have high expectations from myself	-.01	-.10	.47
	4 I am often required to work overtime	.00	.03	.46
	6 There are often emergencies at work	.07	-.14	.46
	38 The competition in the enterprise is fierce	.00	.02	.40
	34 My work responsibility is high	.20	-.04	.39

coping on the relationship between stresses and job satisfaction, hierarchical regression analysis was used to demonstrate the main effects and significance of interactions (In order to reduce the potential problems of multicollinearity, the independent variables were centered by subtracting the respective means from each of the

independent variables). The results revealed the followings: (a) enterprise stress and interpersonal stress had a negative effect on job satisfaction, which proved to be a hindrance stress; (b) challenge stress and problem-focused coping had a positive effect on job satisfaction; (c) two significant interactions existed: enterprise stress

× emotion-focused coping and interpersonal stress × problem-focused coping.

In order to test the interaction effect, a simple main effect test was performed. Low group composed of participants whose scores were under means, while high group composed of participants whose scores were over means. Results revealed that when enterprise stress was high, the job satisfaction of employees who employed high emotion-focused coping was significantly lower than those who employed low emotion-focused coping ( $F(1, 533) = 4.91, p < .05$ ). The negative effect of

enterprise stress on job satisfaction was more apparent when emotion-focused coping was high (Figure 1). Results also revealed that when interpersonal stress was low, job satisfaction of employees who employed high problem-focused coping was significantly higher than that of those who employed lower problem-focused coping ( $F(1, 533) = 18.96, p < .01$ ). The negative effect of interpersonal stress on job satisfaction was more apparent when problem-focused coping was high (Figure 2). Hypothesis 1, 2, and 3 were partially supported.

Table 3 Inter-correlations between main variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1 Enterprise stress	3.48	0.59	-					
2 Interpersonal stress	2.63	0.60	.52 **	-				
3 Challenge stress	3.07	0.58	.18 **	.14 **	-			
4 Problem-focused coping	1.83	0.48	-.03	-.12 **	.12 **	-		
5 Emotion-focused coping	1.30	0.62	.20 **	.23 **	.07	.05	-	
6 Job satisfaction	2.74	0.53	-.58 **	-.51 **	-.20	.23 **	.16 **	-

Note: \*\*for  $p < .01$

Table 4 Hierarchical regression analysis of stress, coping on job satisfaction

Job satisfaction	Step1		Step2		Step3			
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
Enterprise stress	-.45 **	11.37	-.45 **	11.65	-.45 **	11.70	-.45 **	11.60
Interpersonal stress	-.29 **	7.45	-.26 **	6.74	-.26 **	6.77	-.27 **	6.88
Challenge stress	.11 **	3.13	.08 *	2.45	.08 *	2.48	.07 *	2.14
Problem-focused coping			.18 **	5.47	.18 **	5.55	.18 **	5.43
Emotion-focused coping			-.02	.46	.00	.10	.00	.09
Enterprise stress × Problem-focused coping				.46		.00		.00
Interpersonal stress × Problem-focused coping				-.03		.81		
Interpersonal stress × Emotion-focused coping					-.08 *	2.37		
Interpersonal stress × Problem-focused coping							.07 *	2.02
Interpersonal stress × Emotion-focused coping							-.04	1.21
Challenge stress × Problem-focused coping								.03
Challenge stress × Emotion-focused coping								.94
<i>R</i> <sup>2</sup>	.40 **		.43 **		.44 **		.44 **	
$\Delta R^2$			.03 **		.01 *		.01 †	
							.00	

Note: † for  $p < .10$ ; \* for  $p < .05$ ; \*\* for  $p < .01$

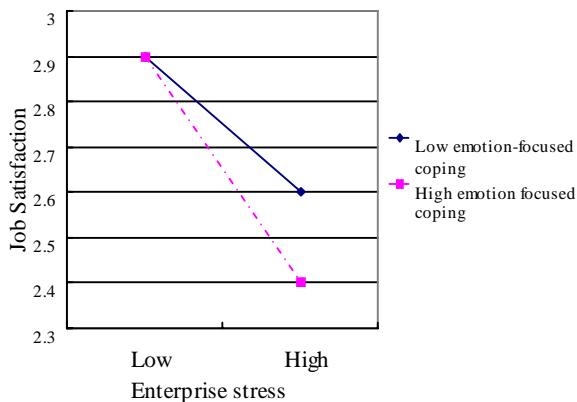


Figure 1 the moderating effect of emotion-focused coping on the relationship between enterprise stress and job satisfaction

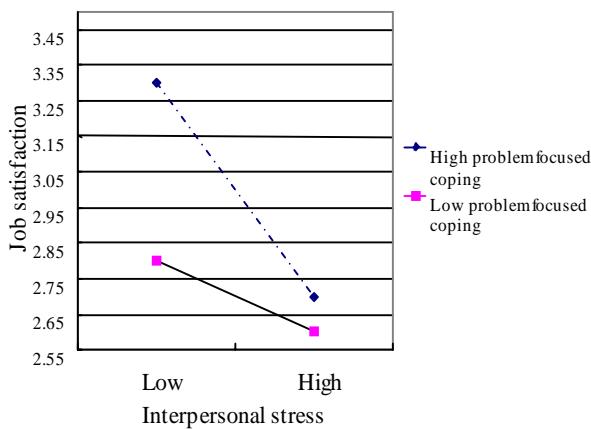


Figure 2 the moderating effect of problem-focused coping on the relationship between interpersonal stress and job satisfaction

## Discussion

### Interpretations

The present study explored challenge stresses and hindrance stresses existing in Chinese state-owned enterprises. All stresses were divided into three categories: enterprise stress, interpersonal stress, and challenge stress. These categories differ from those found in studies conducted in Western countries. Although interpersonal stress exists in every enterprise and every culture, it appears to be a particularly unique factor in Chinese state-owned enterprises. There are three explanations for this finding: (a)

The Chinese were less concerned with issues pertaining to controlling others or the environment than with self-control, in order to minimize friction with others and to make it easier for them to fulfill the requirements of the enterprise. This aspect was connected with the emphasis on the interpersonal stress. (b) There were two management systems in state-owned enterprises before reform was implemented. One system emphasizes the improvement of production, while the other emphasizes on how to make employees act correctly. This dichotomy probably leads to the category of hindrance stresses. (c) Transference was seldom observed among employees in state-owned enterprises because of life-long employment. Hence, the association with colleagues would be life-long. Under this situation, interpersonal stresses would be higher for such employees than for those who transferred frequently. Hindrance stresses were categorized into two groups, whether they are a unique characteristic of Chinese state-owned enterprises or the difference between Eastern and Western cultures, this should be discussed in later research.

The present study also investigated the relations among work-related stresses, coping and job satisfaction. Enterprise stress and interpersonal stress had a negative relationship with job satisfaction. It is more likely that these stresses lead to negative feelings about the job, which perhaps leads employees to withdraw psychologically. Stresses may also lead to a reduction in cooperative behavior or to an increase in general levels of distress within groups or organizations. Such conditions may in turn impair group or organizational job satisfaction. Further, interpersonal conflict may have a negative impact on the performance of employees' job duties due to its negative impact on cognitive functioning. The predominant use of problem-focused coping in conjunction with emotion-focused coping contributes to high job satisfaction.

As predicted, challenge stress and problem-focused coping had a positive

relationship with job satisfaction. The evidence does support the view that job effort causes satisfaction. Shu (2006) suggested that due to the low job stresses of managers in Chinese State-owned enterprises, the job efficiency is low. Compared with the job stresses of employees in Western countries, stresses of employees in Chinese state-owned enterprises was very low. If job stresses are increased, job efficiency can be increased. Shu (2006) also suggested that the nature of stresses existing in Chinese state-owned enterprises is different from that existing in Western enterprises. In Western enterprises, work itself is the major stress.

The results also revealed two moderator effects, indicating that evidence for the proposed stress-buffering effect of coping style was strong. Enterprises stress is a type of stress that if you attempt to do something on it, the results would be better. When employees of state-owned enterprises used high emotion-focused coping, the negative emotions caused by pressures and hopelessness caused by escape would lead to unsatisfactory.

Interpersonal stress is different from enterprise stress due to person is different from matter. Even employees attempted to solve the conflict with supervisors, colleagues, subordinates, it is almost very difficult to obtain a satisfactory result.

### **Implications**

This study attempted to find support for the effectiveness of the categorization of challenge-hindrance stress in organizational management. Job satisfaction was higher among employees who reported a high level of challenge stresses than among those who reported a low level of challenge stresses. Thus, management techniques should take into account challenge and hindrance stresses in Chinese state-owned enterprises. This does not imply that the quantity of stress is not important, however, on the whole, the quality of stresses may have the greatest influence.

Several researches (Landy, Quick, & Kasl, 1994; Dollard & Winefield, 1996) indicated that stress management should first emphasize

workplace re-design efforts as a form of primary prevention. The main underlying assumption is that the most effective method of reducing stress is the removal or reduction of stressors present in the organizational environment. Landy et al. (1994) have outlined six general job re-design guidelines that could increase job satisfaction. First, work should be mentally stimulating, and it should provide challenges with which workers can cope successfully. Second, it should involve physical exertion and activity but should not be overtiring. Third, the rewards of work should be considered to be fair, and indicative of performance. Fourth, the work environment should facilitate work goals and be physically compatible with the needs of workers. Fifth, work enhances self-esteem and enriches self-identity in the workplace. Finally, work leaders and supervisors facilitate the work process and attainment of work goals.

Based on the theory of challenge and hindrance stress, Ferve, Kolt & Matheny (2006) indicated that individual stress management interventions should be the first option, because individuals may react differently to potential stresses. Individual interventions include: cognitive techniques (awareness building, attitude changing, education etc.) and somatic techniques (relaxation, biofeedback, breathing techniques etc.). Cognitive techniques are always more effective than somatic techniques.

However, stress-management is not the product of any one theory; it includes elements that must be customized for each individual and organization.

Some limitations of this study may also be considered. First, only one dependent variable was used in this study. Another dependent variable, mental health was also measured using SCL-90 (Chinese version), however, the scores did not follow normal distribution, and most participants revealed a trend of low scores. Although SCL-90 was the most widely used questionnaire concerning mental health, it seems that over a period of time, its validity and credibility have become questionable. The development of a new mental health

questionnaire should be considered. Second, it is useful to conduct further study that focuses on the reasons for challenge and hindrance stress, for example, personality, achievement goal orientation, and organizational characteristics. Comparative research among countries and occupations will also be useful.

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