

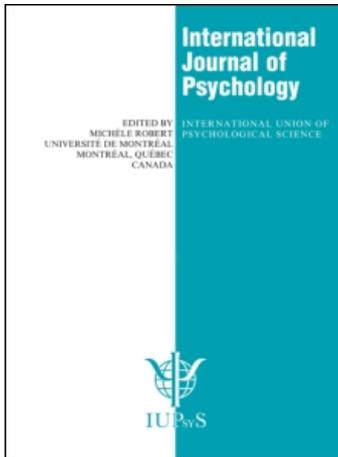
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Publisher Psychology Press

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## International Journal of Psychology

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713659663>

### Work stressors, Chinese coping strategies, and job performance in Greater China

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First published on: 06 May 2010

**To cite this Article** Lu, Luo, Kao, Shu-Fang, Siu, Oi-Ling and Lu, Chang-Qin (2010) 'Work stressors, Chinese coping strategies, and job performance in Greater China', *International Journal of Psychology*, 45: 4, 294 – 302, First published on: 06 May 2010 (iFirst)

**To link to this Article:** DOI: 10.1080/00207591003682027

**URL:** <http://dx.doi.org/10.1080/00207591003682027>

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# Work stressors, Chinese coping strategies, and job performance in Greater China

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The aim of this research was to jointly test effects of work stressors and coping strategies on job performance among employees in the Greater China region. A self-administered survey was conducted to collect data from three major cities in the region, namely Beijing, Hong Kong, and Taipei ( $N = 380$ ). Four important work stressors were assessed: heavy workload, organizational constraints, lack of work autonomy, and interpersonal conflict. We used a four-factor model of Chinese coping strategies composed of hobbies/relaxation, active action, seeking social support, and passive adaptation. Job performance was indicated by both task performance (quantity of work, quality of work, job knowledge) and contextual performance (attendance, getting along with others). We found that: (1) work stressors were related to job performance. Specifically, workload had a positive relation with quantity of work, whereas organizational constraints had negative relations with quantity of work and attendance. In addition, interpersonal conflict had a negative relation with getting along with others. (2) Chinese positive coping strategies were positively related to job performance. Specifically, seeking social support had positive relations with quantity of work and getting along with others, whereas active action had positive relations with attendance and job knowledge. (3) Chinese passive adaptation coping behaviors were negatively related to job performance. Specifically, passive adaptation had negative relations with quantity of work, quality of work, and getting along with others. The present study thus found joint effects of work stressors and coping behaviors among Chinese employees in the Greater China region, encompassing three sub-societies of mainland China, Hong Kong, and Taiwan. Differential effects of Chinese positive and passive coping strategies were also noted. Most importantly, all these effects were demonstrated on multiple indicators of job performance, a rarely studied but important strain variable from the organizational point of view.

**Keywords:** Work stressors; Chinese coping strategies; Job performance.

Le but de cette recherche était à la fois de tester les effets des stress liés au travail et des stratégies de coping sur la performance au travail chez des employés de la grande région de Chine. Un questionnaire auto-administré fut utilisé pour recueillir des données dans trois villes majeures de la région, soit Beijing, Hong Kong et Taipei ( $N = 380$ ). Quatre stress importants liés au travail furent évalués: la lourde charge de travail, les contraintes organisationnelles, le manque d'autonomie au travail et les conflits interpersonnels. Nous avons utilisé un modèle à quatre facteurs des stratégies chinoises de coping incluant les hobbies et la relaxation, l'action active, la recherche de soutien social et l'adaptation passive. La performance au travail était observée à la fois à partir de la performance à la tâche (quantité de travail, qualité du travail, connaissances liées à l'emploi) et de la

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Data collection in Taiwan was supported by a grant from the National Science Council, Taiwan, ROC (Grant No. NSC93-2752-H-030-001-PAE).

performance contextuelle (assiduité, collaboration avec les autres). Nous avons trouvé que (1) les stress liés au travail étaient associés à la performance au travail. Plus spécifiquement, la charge de travail était positivement associée avec la quantité de travail, tandis que les contraintes organisationnelles étaient négativement associées avec la quantité de travail et l'assiduité. De plus, les conflits interpersonnels étaient aussi négativement associés avec la collaboration avec les autres. (2) Les stratégies chinoises positives de coping étaient positivement associées avec la performance au travail. Plus spécifiquement, la recherche de soutien social était positivement associée avec la quantité de travail et la collaboration avec les autres, tandis que l'action active était positivement associée avec l'assiduité et les connaissances liées à l'emploi. (3) Les comportements chinois d'adaptation passive de coping étaient négativement associés avec la performance au travail. Plus spécifiquement, l'adaptation passive était négativement associée avec la quantité de travail, la qualité du travail et la collaboration avec les autres. Ainsi, la présente étude a trouvé des effets à la fois des stress reliés au travail et des comportements de coping chez les employés chinois dans la grande région de Chine, comprenant trois sous-sociétés de Chine, de Hong Kong et de Taiwan. Les effets différentiels des stratégies chinoises de coping positives et passives étaient aussi notés. Il est important de spécifier que tous ces effets furent démontrés sur de multiples indicateurs de la performance au travail, une gamme de variables rarement étudiée, mais importante du point de vue organisationnel.

*E*l objetivo de este estudio fue investigar conjuntamente los efectos de estresores laborales y las estrategias de afrontamiento en el rendimiento de trabajo entre los empleados en la región de Grande China. Una encuesta auto-administrada fue llevada a cabo para recabar datos de tres mayores ciudades en la región, literalmente Pequín, Hong Kong y Taipéi ( $N = 380$ ). Se evaluaron cuatro estresores laborales más importantes: alta carga de trabajo, limitaciones organizacionales, falta de autonomía laboral y conflicto interpersonal. Hemos utilizado el modelo de cuatro factores de estrategias de afrontamiento chinas compuesto por hobbies/relajación, acción activa, búsqueda de apoyo social y adaptación pasiva. El rendimiento de trabajo fue indicado por ambos, rendimiento en las tareas (cantidad de trabajo, cualidad de trabajo y conocimiento de trabajo) y rendimiento contextual (asistencia, llevarse bien con los demás). Hemos encontrado que (1) los estresores laborales fueron relacionados con el rendimiento en el trabajo. Específicamente, la carga de trabajo tuvo una relación positiva con la cantidad de trabajo, mientras que las limitaciones laborales fueron relacionadas de forma negativa con la cantidad de trabajo y la asistencia. Adicionalmente, el conflicto interpersonal también fue relacionado de forma negativa con llevarse bien con los demás. (2) Estrategias de afrontamiento positivas chinas fueron positivamente relacionadas con el rendimiento de trabajo. Específicamente, la búsqueda de apoyo social tuvo relaciones positivas con cantidad de trabajo y llevarse bien con los demás, mientras que la acción activa tuvo relaciones positivas con la asistencia y el conocimiento de trabajo. (3) Las conductas de adaptación pasiva china fueron relacionados de forma negativa con el rendimiento de trabajo. Específicamente, la adaptación pasiva tuvo relaciones negativas con la cantidad de trabajo y llevarse bien con los demás. El presente estudio encontró efectos conjuntos de estresores laborales y la conducta de afrontamiento entre empleados chinos en la región de Grande China, abarcando tres sub-sociedades de China continental, Hong-Kong y Taiwán. También se encontraron efectos diferenciales de estrategias de afrontamiento chinas positivas y pasivas. Es más, todos estos efectos fueron demostrados mediante indicadores múltiples de rendimiento de trabajo, una variable raramente estudiada, pero muy importante desde el punto de vista organizacional.

Decades of research have established that many stressors at work can lead to negative consequences for employees' well-being, including psychological, physical, and behavioral changes (e.g., Cooper, Dewe, & O'Driscoll, 2001). Psychological strains such as job dissatisfaction and anxiety/tension have traditionally been the focus of work stress research; physical strains such as health or health-related behaviors are gaining attention recently (Jex & Beehr, 1991). However, as pointed out by Cooper et al. (2001) in their review of the occupational stress literature, behavioral changes, especially those directly related to job performance, are the least studied of all forms of strain, although they are the most important strain from an organizational point of view. The present study

thus aimed to bridge this knowledge gap by looking at the direct effects of work stressors on job performance in the Greater China region.

In transactional stress models (e.g., Lazarus & Folkman, 1984), coping is an integral element of the stress process because coping strategies can help counteract the effects of stressors on strains. However, previous research on work stress and coping has been disappointing (Bar-Tal & Spitzer, 1994). Applying coping measures developed in the West poses further challenges, as we do not know whether they are relevant for Chinese employees. Thus in the present study, we used a four-factor model of Chinese coping strategies composed of hobbies/relaxation, active action, seeking social support,

and passive adaptation, as developed by Siu, Spector and Cooper (2006), to examine their effects together with work stressors on job performance.

It has been argued that almost all of the occupational stress theories are developed and empirically tested in Western, industrialized countries (Cooper et al., 2001). A comprehensive quantitative review of the association between work stressors and job performance confirmed that 88% of data came from English-speaking countries (Gilboa, Shirom, Fried, & Cooper, 2008). As the Greater China region has 20% of the world's population and represents an ever increasing economic power, it is valuable to obtain data from Chinese employees to contribute to the development of theories and practices of organizational psychology. We chose Beijing, Hong Kong, and Taipei as three target cities for several reasons. First, the three are important industrial cities in the Greater China region, representing mainland China, Hong Kong Special Administrative Region, and Taiwan. Second, previous research (Lu, Cooper, Kao, & Zhou, 2003) led us to conclude that despite historical differences, employees in Beijing, Hong Kong, and Taipei have similar experiences of work stress nowadays (Lu, Kao, Zhou, & Siu, 2001), and use similar coping strategies (Siu et al., 2006). We thus set out to explore whether these work stressors and coping strategies affect job performance for all employees in the Greater China region.

### SALIENT WORK STRESSORS FOR CHINESE EMPLOYEES

In a US-China comparative study, Liu (2002) revealed that heavy workload, interpersonal conflict, and organizational constraints are the common stressors for both American and Chinese workers. Lu, in a series of studies conducted in Taiwan, found that heavy workload, lack of work autonomy, and interpersonal conflict are the most prevalent stressors for Taiwanese employees (e.g., Lu, 1997, 1999). In an earlier comparative study, Lu et al. (2001) noted that heavy workload and interpersonal conflict are common work stressors for employees in mainland China, Hong Kong, and Taiwan. It thus seems that *heavy workload* (perceived amount of work in terms of pace and volume), *organizational constraints* (situations or things that prevent employees from translating ability and effort into high levels of job performance), *lack of work autonomy* (lack of freedom and

discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out), and *interpersonal conflict* (experiencing disagreements or being treated poorly at work) may be four salient work stressors for Chinese workers. However, so far no study has compared the effects of these four stressors in multiple samples from different regions in the Greater China zone. In the present study, we thus measured these four work stressors among workers in Beijing, Hong Kong, and Taipei, to explore their effects on job performance. As detailed above, we used constructs of workload, organizational constraints, and interpersonal conflict as defined by Spector and Jex (1998), and lack of work autonomy as defined by Hackman and Oldham (1975).

### DO WORK STRESSORS AFFECT JOB PERFORMANCE?

In earlier studies of stress, the proposed inverse U-shape curve between level of stress and performance aroused a lot of interest (Selye, 1975). However, this attractive proposition has received very little empirical support. In a review, Lori, Stanley, and Hubert (2003) concluded that a negative linear relationship between stress and performance was the proposition most consistently supported by empirical research. The most wide-ranging quantitative review of the association between work stressors and job performance reported that 20 out of 24 effect sizes were significant across 169 samples (Gilboa et al., 2008).

It seems that the negative relation between work stressors and job performance is the rule; however, differential relationships of various stressors with performance may still be possible. Following the theoretical work of Lazarus (e.g., Lazarus & Folkman, 1984), more recent studies (LePine, Podsakoff, & LePine, 2005) suggested that work stressors may be appraised as a threat or hindrance, which will be negatively associated with performance; however, they may also be appraised as a challenge, which will produce positive effects. The positive linear model has been proposed to explain this expected positive relation, arguing that when a stressor is primarily appraised as a challenge it may lead to internal arousal, increased exertion of efforts and higher performance outputs (LePine et al., 2005; McGrath, 1976). Spector and Jex (1998) did find a positive relation between quantitative overload and supervisor-rated performance. Among the four stressors included in the present study

(heavy workload, organizational constraints, lack of work autonomy, and interpersonal conflict), heavy workload may be the one most likely appraised as a challenge. This may occur when high performers or committed employees take on extra tasks and responsibilities and strive to perform them well. As past studies have reported positive, negative, and no associations between overload and performance (Gilboa et al., 2008; LePine et al., 2005; Spector & Jex, 1998), this indicates that overload may represent a hindrance and/or challenge to the focal individual. We thus expected the negative relation between overload and performance to be the weakest among the four stressors under study here. This expectation was also based on the observation that all other three stressors (organizational constraints, lack of work autonomy, and interpersonal conflict) are more structurally determined and the individual could have little control over them.

Job performance may be defined along two dimensions: task performance and contextual performance (Borman & Motowidlo, 1993). The former comprises behaviors directly related to task fulfillment, which can be judged on criteria such as quantity and quality produced, and job knowledge needed for completing the task. The latter comprises behaviors not directly related, but conducive to task fulfillment, which can be judged on criteria such as good colleague relations, interpersonal facilitation, and job dedication (attendance and involvement). Thus we adopted multiple indicators for job performance, including quantity of work, quality of work, job knowledge (task performance) and attendance, and getting along with others (contextual performance), to assess our Chinese workers.

## DOES COPING MAKE A DIFFERENCE?

One important conclusion reached in the stress and coping literature is that the efficacy of a coping strategy varies across situations, individuals, time, and outcome indicators (Lazarus & Folkman, 1984). However, with due caution, some general statements can still be made. Problem-focused coping is generally adaptive while emotion-focused coping maladaptive (Lazarus, 1999). In the work stress context, the current status is disappointing, as portrayed in Cooper et al.'s review (2001): Little is known about how individuals cope and the factors important to coping with work stress.

Siu et al. (2006) developed and validated a Chinese Coping Strategies Scale. They found a

four-factor structure: hobbies/relaxation (physical exercise and relaxation), active action (exerting more efforts and maintaining an active positive attitude), seeking social support (discussing with colleagues/superiors), and passive adaptation (accepting the reality and doing nothing). The first three were also termed "positive coping." They noted that passive adaptation is unique among the Chinese. Definitions of the four factors were not given by the authors, but meanings can be extracted from the content of items used to gauge them, as described above.

Siu et al.'s (2006) preliminary evidence further indicated the differential impact of positive coping and passive coping on work well-being. They found that hobbies/relaxation, active action, and seeking social support correlated positively with job satisfaction and negatively with psychological symptoms; whereas passive adaptation correlated negatively with job satisfaction and positively with psychological symptoms. However, their research still focused on psychological strains: Job performance is yet to be examined as a strain indicator for these Chinese coping strategies.

We thus hypothesize as follows.

*Hypothesis 1:* Work stressors will be negatively related to job performance, with overload showing the weakest association with performance.

*Hypothesis 2:* Chinese coping strategies will be related to job performance. Specifically, hobbies/relaxation, active action, and seeking social support will be positively related to job performance, whereas passive adaptation will be negatively related to job performance.

## METHOD

### Samples and procedure

We used a self-administered structured questionnaire to collect data from employees in Beijing, Hong Kong, and Taipei. We adopted a quota sampling method to recruit equivalent numbers of participants from both sexes and from various organizations. Respondents were invited to participate through the personnel manager or a contact person known to the researchers in each organization. The survey was conducted in Chinese. Questionnaires were distributed in booklet form, along with a cover-letter assuring anonymity and voluntary participation and a postage-paid return envelope. A reminder letter was sent seven days after the initial invitation to boost the response rate. Questionnaires were mailed back to the

researchers directly. The overall response rate was 68.6%.

The Beijing sample ( $N=128$ ) consisted of 46 men and 82 women (1 unidentified), with a mean age of 35.78 years ( $SD=6.82$ ). About 51% of the participants were managers; 71.4% were married and 28.6% were single (1 unidentified). The mean of current job tenure was 7.55 years ( $SD=7.44$ ). The Hong Kong sample ( $N=105$ ) consisted of 54 men and 50 women (1 unidentified), with a mean age of 35.64 years ( $SD=6.68$ ). About 66% of the participants were managers; 56.3% were married and 43.7% were single (1 unidentified). The mean of current job tenure was 7.11 years ( $SD=6.43$ ). The Taipei sample ( $N=146$ ) consisted of 102 men and 43 women (1 unidentified), with a mean age of 36.25 years ( $SD=5.61$ ). About 70.4% of the participants were managers; 71.7% were married and 28.3% were single. The mean of current job tenure was 7.55 years ( $SD=7.54$ ).

## Instruments

### Work stressors

Twenty-three items were chosen from existing Western scales that have also been found relevant to the Chinese and proved reliable (Liu, 2002; Lu, 1997, 1999; Lu et al., 2001, 2003). We used these items to assess four stressors: workload (5 items; Spector & Jex, 1998, e.g., "How often is there a great deal to be done?"), organizational constraints (11 items; Spector & Jex, 1998, e.g., "lack of equipments or supplies"), interpersonal conflict (4 items; Spector & Jex, 1998, e.g., "How often are people rude to you at work?"), and lack of autonomy (3 items; Hackman & Oldham, 1975; e.g., "I decide on my own how to go about doing the work", reversed score). Each item was rated on a 6-point scale ( $1=less\ than\ once\ per\ month\ or\ never$ ,  $6=several\ times\ per\ day$ ).

### Chinese coping strategies

The 12-item Chinese Coping Strategies Scale (Siu et al., 2006) was used to assess four coping strategies: hobbies/relaxation (2 items, e.g., "Take time to relax"), seeking social support (2 items, e.g., "Discuss with my superiors"), active action (4 items, e.g., "Spend extra time to finish the task"), and passive adaptation (4 items, e.g., "Let fate have its way"). Each item was rated on a 6-point scale ( $1=never\ used$ ,  $6=almost\ always\ used$ ).

## Job performance

We used Viswesvaran, Ones, and Schmidt's (1996) measure to assess five aspects of job performance: quantity of work, quality of work, job knowledge, attendance, and getting along with others. Participants self-rated each aspect on a 6-point scale ( $1=very\ bad$ ,  $6=outstanding$ ).

## RESULTS

Although we have shown in the literature review that work stress and coping were experienced similarly in Greater China, we nonetheless conducted preliminary analyses within each city sample. Separate correlation analyses revealed generally similar patterns, with odd numbers of correlations being significant in one sample but not in another (these data may be obtained from the author). We thus decided to pool the data for further analysis. Table 1 reports correlation results in the combined sample, incorporating item means and standard deviations for relevant scales.

We then conducted a series of hierarchical regression analyses to test our hypotheses. We conducted three steps to predict five aspects of job performance separately. Specifically, in the first step of regression, we entered demographic variables of sex, tenure and rank. Second, we entered four work stressors. Finally, we entered four Chinese coping strategies.

The results reported in Table 2 show that three work stressors were related to job performance: Workload had a *positive* relation with quantity of work, whereas organizational constraints had negative relations with both quantity of work and attendance; interpersonal conflict had a negative relation with getting along with others. Therefore, our *H1* was partially supported. Results also show that three Chinese coping strategies were related to job performance: Seeking social support had positive relations with both quantity of work and getting along with others; active action had positive relations with both attendance and job knowledge; passive adaptation, however, had *negative* relations with quantity of work, quality of work, and getting along with others. Therefore, *H2* was also partially supported. In all the regression analyses, the combination of work stressors and Chinese coping strategies explained 6–13% of variance on various aspects of job performance.

A recent meta-analytical review (Gilboa et al., 2008) suggests the importance of potential moderators in the stressor–performance relationship. Gilboa et al. found that the negative correlation of role overload and performance was higher among

TABLE 1  
Means, standard deviations, and correlations of study variables for the combined sample (N = 380; alphas are given on the diagonal)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Workload	.93															
2. Organizational constraints	.56**	.93														
3. Lack of autonomy	.14**	.31**	.85													
4. Interpersonal conflict	.51**	.52**	.18**	.81												
5. Hobbies/relaxation	-.01	.08	-.09	-.05	.71											
6. Seeking social support	-.07	-.13*	-.10	-.15**	.22**	.67										
7. Active action	-.03	-.11*	-.22**	-.16**	.27**	.53**	.78									
8. Passive adaptation	.14**	.21**	.17**	.24**	.16**	.01	-.04	.89								
9. Quantity of work	.03	-.15**	-.11*	-.07	.02	.18**	.16**	-.15**	/							
10. Quality of work	-.08	-.15**	-.13**	-.08	.11*	.17**	.15**	-.15**	.57**	/						
11. Attendance	-.04	-.19**	-.05	-.17**	.04	.17**	.31**	-.07	.36**	.33**	/					
12. Job knowledge	-.01	-.03	-.13**	-.06	.13*	.19**	.22**	-.07	.29**	.49**	.32**	/				
13. Getting along with others	-.14**	-.15**	-.19**	-.25**	.05	.24**	.17**	-.20**	.33**	.29**	.32**	.26**	/			
14. Sex	.00	-.06	.17**	-.03	-.04	-.02	.12*	-.01	.08	.05	.07	-.03	-.08	/		
15. Rank	.07	.00	-.08	.03	-.14*	.05	-.11*	-.06	.08	.11	-.05	.13**	.05	-.28**	/	
16. Tenure	-.06	-.03	-.04	-.04	.00	.05	.01	-.03	.12*	.07	.06	.09	.05	-.19**	.19**	/
M	2.72	2.51	2.72	2.31	3.88	4.30	4.57	3.53	4.51	4.79	5.21	4.90	4.90	0.46	1.69	7.27
SD	1.25	1.04	1.07	0.84	1.09	0.85	0.90	1.35	1.00	0.86	0.89	0.72	0.83	/	/	6.85

Sex: 0 = male, 1 = female; rank: 1 = manager, 0 = non-manager. \* $p < .05$ , \*\* $p < .01$ .

**TABLE 2**  
Hierarchical regression analysis predicting job performance for the combined sample ( $N=380$ )

Step	Predictor	Quantity of work		Quality of work		Attendance		Job knowledge		Getting along with others	
		$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
1	Sex		.13*		.17**		.01		.02		-.08
	Rank		.05		.16**		-.03		.17**		.03
	Tenure	.04**	.14*	.04**	.07	.01	.04	.03*	.07	.01	.02
2	Workload		.17*		-.04		.12		.00		-.01
	Organizational constraints		-.19*		-.10		-.18*		.04		.09
	Lack of autonomy		-.07		-.06		.02		-.05		-.10
	Interpersonal conflict	.05**	.02	.02	.10	.05**	-.08	.01	-.01	.08***	-.23**
3	Hobbies/relaxation		.03		.09		.00		.08		.02
	Seeking social support		.13*		.11		.00		.07		.17**
	Active action		.01		.01		.28***		.14*		.03
	Passive adaptation	.04**	-.15**	.04**	-.15**	.07***	-.03	.05**	-.06	.05**	-.12*
$R^2$		.13		.11		.13		.09		.14	
$F_{(df)}$		3.98*** <sub>(11,307)</sub>		3.31*** <sub>(11,307)</sub>		4.05*** <sub>(11,306)</sub>		2.77** <sub>(11,307)</sub>		4.51*** <sub>(11,307)</sub>	

Sex: 0 = male, 1 = female; rank: 1 = manager, 0 = non-manager.  $\beta$  and  $F$  are taken from the final equation. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

managers relative to nonmanagers. Although not formally hypothesized, we tested the moderating effects of job level (managers vs. nonmanagers) using moderated regression with centered variables. However, only 1 out of 20 analyses reached statistical significance. We shall not discuss the issue further as this is very likely an artifact.

## DISCUSSION

The purpose of the present study was to jointly test effects of work stressors and coping strategies among employees in the Greater China region. We found that both work stressors and Chinese coping strategies were associated with job performance. Specifically, work stressors such as organizational constraints and interpersonal conflict were negatively related to job performance. Chinese coping strategies such as seeking social support and active action were positively related to job performance. These findings were consistent with previous studies showing detrimental effects of work stressors and beneficial effects of coping *separately* for the Chinese people (e.g., Lu, 1997, 1999; Lu et al., 2001, 2003; Siu et al., 2006). The added value of the present study is that we included subsamples from three geographical subregions in the Greater China zone—mainland China, Hong Kong and Taiwan—thus our current pooled sample better represents Chinese employees in the region. In addition, work stressors and

coping behaviors were considered simultaneously to better represent the transactional models of work stress. Also, previous work stress research seldom uses job performance as the strain variable; our results help to highlight the joint effects of stressors and coping on this very important outcome criterion from an organizational point of view.

Our results show that the most salient work stressors where job performance is concerned are workload, organizational constraints, and interpersonal conflict. The unpredicted *positive* relation between workload and quantitative task performance may not be so bewildering: Spector and Jex (1998) found a positive relation between overload and supervisor-rated performance ( $r = .16$ ). As reviewed above, workload may reflect some aspects of challenge, when diligent and committed employees take on more tasks and responsibilities and are motivated to perform them well. Although positive relations between stressors and performance are rarely reported and the overarching model still seems to be the negative linear one (Gilboa et al., 2008), the convergence of our finding among the Chinese with Spector and Jex's among the Americans should underline the necessity of studying the challenge aspect of work stressors in greater detail.

Organizational constraints as a source of work stress has been rarely acknowledged and studied (Spector & Jex, 1998), however, we found it detrimental to both task performance (quantity

of work) and contextual performance (attendance). Spector and Jex (1998) found a similar negative relation using supervisor-rated performance ( $r = -.11$ ). In another recent study organizational constraints were also found to be detrimental to job satisfaction and conducive to work–family conflict for employees in both Taiwan and mainland China (Kao, Lu, & Lu, 2008). This aspect of the work environment definitely needs more attention when understanding the work stress process.

Not surprisingly we also found that interpersonal conflict was negatively related to contextual job performance (getting along with others). Spector and Jex (1998) found a similar negative relation using supervisor-rated performance ( $r = -.10$ ). Again this convergence of evidence gives us more confidence that this less studied social aspect of work environment deserves greater attention in the future, especially for the relationship-conscious Chinese employees (Chang & Lu, 2007).

Our results also reveal some interesting differential effects of coping on job performance. We found that positive coping behaviors such as seeking social support and active action were beneficial for task performance (quantity of work, job knowledge) and contextual performance (attendance, getting along with others). However, passive adaptation was detrimental to both task performance (quantity of work, quality of work) and contextual performance (getting along with others). Siu et al. (2006) noted similar patterns on job satisfaction and psychological symptoms. Our results corroborate and extend these findings to self-rated job performance.

Though passive adaptation is a prevalent coping strategy unique to the Chinese (Siu et al., 2006), it nonetheless may be harmful rather than beneficial—lowering psychological well-being as well as hampering the actual job performance. We must note that withdrawing from the stressful reality and conceding to fate may give one momentary peace of mind and protect social harmony, but such passive adaptation does not eradicate the stressors (e.g., organizational constraints) or resolve the problems (e.g., interpersonal conflict). Therefore, its overuse may bring more harm than benefits.

Readers should keep in mind that the present study has certain limitations. First, the survey design was cross-sectional, thus no causal conclusions are legitimate. Second, our survey was conducted using a self-report method. Future studies may consider employing both subjective and objective measurements of work stressors and

performance, so that crucial variables in the workplace can be better understood.

Manuscript received November 2008

Revised manuscript accepted September 2009

First published online May 2010

## REFERENCES

- Bar-Tal, Y., & Spitzer, A. (1994). Coping use versus effectiveness as moderating stress–strain relationship. *Journal of Community and Applied Social Psychology, 4*, 91–100.
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations*. San Francisco: Jossey-Bass.
- Chang, K. C., & Lu, L. (2007). Characteristics of organizational culture, stressors and well-being: The case of Taiwanese organizations. *Journal of Managerial Psychology, 22*, 549–568.
- Cooper, C. L., Dewe, P., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research and applications*. Thousand Oaks, CA: Sage.
- Gilboa, S., Shirom, A., Fried, Y., & Cooper, C. (2008). A meta-analysis of work demand stressors and job performance: Examining main and moderating effects. *Personnel Psychology, 61*, 227–271.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 259–270.
- Jex, S. M., & Beehr, T. A. (1991). Emerging theoretical and methodological issues in the study of work-related stress. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel and human resources management* (Vol. 9, pp. 311–364). Greenwich, CT: JAI.
- Kao, S. F., Lu, L., & Lu, C. Q. (2008). Demands and resources in work/family domains, work/family conflict and their consequences: A regional comparison between Taiwanese and mainland Chinese. *Chinese Business Review—USA, 8*, 39–47.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York: Springer.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal, 48*, 764–775.
- Liu, C. (2002). *A comparison of job stressors and job strains among employees holding comparable jobs in Western and Eastern societies*. Unpublished doctoral dissertation, University of South Florida, Tampa.
- Lori, A. M., Stanley, G. H., & Hubert, S. F. (2003). Has the inverted-U theory of stress and job performance had a fair test. *Human Performance, 16*, 349–364.
- Lu, L. (1997). The process of work stress: A dialogue between theory and research. *Chinese Journal of Mental Health, 10*, 19–51.

- Lu, L. (1999). Work motivation, job stress and employees' well-being. *Journal of Applied Management Studies*, 8, 61–72.
- Lu, L., Cooper, C. L., Kao, S. F., & Zhou, Y. (2003). Work stress, control beliefs and well-being in Greater China: An exploration of sub-cultural differences between the PRC and Taiwan. *Journal of Managerial Psychology*, 18, 479–510.
- Lu, L., Kao, S. F., Zhou, Y., & Siu, O. L. (2001). Work stress, control beliefs, job satisfaction and well-being of employees in the Greater China. *Formosa Journal of Mental Health*, 14, 55–87.
- McGrath, J. E. (1976). Stress and behavior in organizations. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 3, pp. 1351–1395). Chicago: Rand McNally.
- Selye, H. (1975). *Stress without distress*. New York: McGraw-Hill.
- Siu, O. L., Spector, P. E., & Cooper, C. L. (2006). A three-phase study to develop and validate a Chinese coping strategies scales in Greater China. *Personality and Individual Differences*, 41, 537–548.
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strains: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3, 356–367.
- Viswesvaran, C., Ones, D. S., & Schmidt, F. L. (1996). Comparative analysis of the reliability of job performance ratings. *Journal of Applied Psychology*, 81, 557–574.