Chapter 18
The Effect of a Nation-Specific Stressor on Well-Being: Guanxi in Chinese Workplace

Qiao Hu, Wilmar B. Schaufeli and Toon W. Taris

Abstract This study differentiates between task resources and social resources and extends the Job Demands-Resources (JD-R) model with guanxi exchange. This is a typical Chinese form of social exchange between the employee and his or her supervisor that is based on the give-and-take of favors. Hypotheses were tested in two Chinese samples of police officers ($N = 466$) and nurses ($N = 261$). Multigroup structural equation analyses supported the distinction between social resources and task resources. Task resources predicted well-being in nurses, whereas social resources predicted well-being in police officers. Further, guanxi exchange with supervisors was associated with social as well as with task resources. Moreover, in nurses guanxi exchange was related with engagement, whereas in police officers it was related with burnout. In conclusion: (1) task and social resources are two distinct types of job resources that play a slightly different role in a law enforcement as compared to a health care setting; (2) guanxi exchange can be integrated into the JD-R model, thereby increasing its relevance for the Chinese work context.

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Introduction

Different culture leads to different values and beliefs, different communication, different norms of behaviors. China is a Confucian culture and significantly different from Western cultures. Guanxi has been considered as a product of Confucian values and is inherent in the work ethics of the Chinese people. Effective guanxi represents a long-term coalitional relationship among guanxi partners to deal with resource scarcity and environmental uncertainty. Employees use guanxi networks to overcome the uncertainty and distrust that plague the process of resources distribution, and to reduce the transaction costs of information search, relationship monitoring, and task enforcement.

   The Job Demands-Resources (JD-R) model (Demerouti et al. 2001) posits that each and every job has particular job demands and particular job resources and that these demands and resources are the antecedents of employee well-being, motivation, and performance. Specifically, the JD-R model proposes that employee well-being is related to a wide range of workplace characteristics that can be conceptualized as either job demands or job resources. Job resources have been defined as those task and social job characteristics that support the employee in successfully coping with job demands, attaining work goals, and achieving personal growth and development (Schaufeli and Bakker 2004). Excess job demands and lacking job resources exert an energy-draining effect on employees through a stress process, while high levels of job resources are related to positive work outcomes through a motivational process. Although the JD-R model treats job demands and job resources as unitary concepts, a distinction has been made recently between challenge demands and hindrance demands (LePine et al. 2005). However, so far job resources have not yet been differentiated.

Task Resources and Social Resources in the JD-R Model

Studies using the JD-R model typically examine the indirect links between job characteristics and work outcomes via well-being. A high-resources job offers employees challenge and opportunities to cope successfully with job demands. Consequently, employees experience relatively little stress and feel engaged. This type of job fosters personal growth and development, leading to positive work outcomes such as high organizational commitment. However, many scholars voiced concerns that learning and growth do not happen solely as a function of task resources, arguing that this occurs in a social context. They suggested that personal learning and growth occur through social interaction with coworkers, while talking about work and observing others doing their work (Wenger 1998). Hence, scholars have recognized that both task and social resources are positively related to employee well-being. For example, Ouweneel et al. (2009) found that levels of job control among health care managers were not high enough to counteract the

negative effects of job demands on learning, whereas additional supervisor support affected managers' on-the-job informal learning positively.

Accumulating evidence suggests that task resources (e.g., job control, participation in decision-making) as well as social resources (supervisor and co-worker support) are indirectly related to positive work outcomes (e.g., organizational commitment) through work engagement. The JD-R model assumes that these aggregated job (i.e., task and social) resources can be represented as a single composite dimension. Studies using the JD-R model thus usually combine different and quite heterogeneous job resources into one job resources factor. However, it has been argued that task and social resources are theoretically and conceptually distinct (e.g., Weigl et al. 2010): whereas task resources refer to the individual-level work context, social resources refer to interpersonal interactions and interdependencies that are related to the group-level work context. Task resources are therefore embedded in social resources.

The current study included two core task resources (job control and participation in decision-making) and two core social resources (social support from colleagues and from the supervisor). Based on the above reasoning, we expect a model in which two types of job resources are distinguished i.e., task resources (job control and participation in decision) versus social resources (supervisor support and colleague support) to fit better to the data than a model with a single composite resources factor (Hypothesis 1).

Guanxi Exchange in the JD-R Model

So far the JD-R model has been applied mainly in samples from western countries (e.g., Australia, Austria, Belgium, Germany, Finland, Netherlands, and Spain), and when it was applied to non-Western samples in its original form (e.g., Hu et al. 2011). The second objective of our study is to extend the original JD-R with a typical and important Chinese phenomenon—*guanxi* exchange—in order to increase its applicability in the Chinese context.

Interpersonal relationships exist in various forms in every human society, however, *guanxi* has been considered as a typical product of Confucian values and it is inherent in the work ethics of the Chinese people. As "the moral principles regarding interactive behaviors of related parties" (Chen and Chen 2004, p. 308), *guanxi* embodies a wide range of personal ties and nuanced patterns of interpersonal dynamics. Basically, *guanxi* is constituted by reciprocity, meaning that the behavior of petitioners is governed by the social norm known as "*renqing*" or "favors" (Hwang 1987). Providing benefits to somebody in one's *guanxi* network at a particular time will create a "debt" (i.e., an implicit obligation) to the petitioner, and the petitioner should return the *renqing* (favor) or else (s)he will be viewed as untrustworthy. *Renqing* is the most important aspect of *guanxi* exchange that emphasizes not only a normative standard for regulating social exchange, but also a social mechanism that an individual can use to strive for desirable resources in hierarchically structured relationships (Hwang 1987).

In contrast to western social exchange relations, which usually involve the exchange of equivalent value and timely return (Powell 1990), Chinese *guanxi* exchange involves special favors (e.g., bonuses, promotion, fringe benefits, etc.) that go beyond an equal exchange and which can be paid back in the long run (Yum 1988). *Renqing* ensures trust among the members of the *guanxi* network, which tends to minimize the risk of uncertainty (Lovett et al. 1999). *Guanxi* exchange is embedded in intricate and informal personal relationships, but these informal, unofficial relations are not easily separable from formal, official work relations, for instance at work. Management in China is thought to depend largely on interpersonal relationships (Hui and Lin 1996), and *guanxi* is considered as the basis for effective collaboration (Chen and Chen 2004). Because supervisors have limited time and energy, they can only develop close work relationships with a few employees whom they provide with material and immaterial resources to help them perform better. *Guanxi* exchange is a substitute for competitive disadvantages and employees use *renqing* to deal with resource scarcity and uncertainty. As a consequence, employees who have good *guanxi* with their supervisors tend to receive more bonuses and are more likely to be promoted (Law et al. 2000). Empirical research also attests that close *guanxi* bonds between coworkers facilitate job related support and recognition for each other (Cheung et al. 2009), and to social relations outside work (Law et al. 2000). *Guanxi* emphasizes emotional attachment and obligations, thus, the more supervisors and employees develop a high-quality work relationship and interact with each other, the more likely it is that employees exhibit organizational citizenship behavior (Wong et al. 2003), organizational commitment (Cheung et al. 2009) and work engagement. However, *guanxi* reciprocity requires that the individual continuously invests and puts effort into relationships with others, which might exhaust their energy (Warren et al. 2004). Moreover, in the process of *guanxi* exchange, supervisors make more generous resource allocations to those with whom they had frequent interactions and closer personal bonds, and interpersonal relationships may take precedence over the procedural justice rules (Tsui and Farh 1997; Zhang 2001), which is considered as a main antecedent of burnout (Liljegren and Ekberg 2009).

Based on the previous reasoning we formulate the following hypotheses: *guanxi* reciprocity is positively related to task resources (Hypothesis 2) and social resources (Hypothesis 3); *guanxi* reciprocity will be positively related with work engagement (Hypothesis 4) and negatively with burnout (Hypothesis 5), and guanxi reciprocity is positively related to organizational commitment (Hypothesis 6).

Methods

Sample and Procedure

All nurses from a general hospital and all officers from the police force in Yongkang city, China, received paper-and-pencil questionnaires. An accompanying

letter introduced the goal of the study and emphasized the confidentiality and anonymity of the participants' answers. The nurse sample included 261 females (response rate 74.5 %; M_{age} = 28.38 years, SD = 7.47). The police officers sample included 401 males and 65 females (response rate 93.2 %; M_{age} = 36.76, SD = 9.82).

Measures

All job characteristics were assessed by the Chinese version of the Questionnaire on the Experience and Evaluation of Work (QEEW; Van Veldhoven et al. 2002) developed by Hu et al. (2011, 2013). These items were scored on 7-point rating scales (0 = "never", 6 = "always").

Three challenge *job demands* were included in the present study: workload (5 items, e.g., "Do you have too much work to do?"), physical load (7 items, e.g., "Does your work require physical strength?"), and mental demands (5 items, e.g., "Does your work demand a lot of concentration?").

Job resources included two task resources and two social resources. *Task resources* were job control (3 items, e.g., "Can you decide on your own how your work is executed?") and participation in decision-making (6 items, e.g., "Do you have a lot of say over what is going on in your work area?"). *Social resources* were supervisor support (3 items, e.g., "Can you count on your direct supervisor when you encounter difficulties in your work?") and colleague support (3 items, e.g., "If necessary, can you ask your colleagues for help?").

Burnout was assessed with the exhaustion and cynicism subscales of Hu and Schaufeli's (2011) Chinese version of the Maslach Burnout Inventory—General Survey (MBI-GS; Schaufeli et al. 1996). Exhaustion was assessed with five items (e.g., "I feel used up at the end of the workday") and cynicism with four items (e.g., "I have become less enthusiastic about my work") (0 = "never", 6 = "daily"). High scores on the exhaustion and cynicism subscales signify burnout.

Work Engagement was assessed with the Chinese version (Hu et al. 2011) of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al. 2006). The UWES-9 taps three underlying dimensions with three items each: vigor (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "My job inspires me"), and absorption (e.g., "I get carried away when I am working"). A similar scoring was used as for burnout (see above).

Organizational Commitment (5 items, e.g., "I feel like 'a member of the family' in my workplace", 1 = "never", 5 = "always") was assessed by a scale from the QEEW (Hu et al. 2011, 2013).

A scale assessing *guanxi exchange* between employee and supervisor was developed based on the exchange of favors ("*renqing*"). Ten statements were derived from in-depth interviews held with Chinese employees. Four items referred to *renqing* investments, and the other 6 items referred to *renqing*-rewards (cf. Table 18.1). Participants used a 5-point scale (1 = "strongly disagree", 5 = "strongly agree") to

Table 18.1 The two *guanxi* exchange scales: renqing investment and renqing rewards

Renqing investment
1. I have to do a favor to my supervisor from time to maintain a good *guanxi*
2. I have to spend a lot of time and effort outside of my work to maintain a good *guanxi* with my supervisor
3. I have to express very often my understanding and empathy to my supervisor to maintain a good *guanxi*
4. I have to offer my supervisor gifts in the expectation that he/she will do me favor when I need it
Renqing rewards
1. I have developed a good *guanxi* with my supervisor whom I can call on for support when I need to get things done
2. I have developed a good *guanxi* with my supervisor which increases my social status in my work team
3. My supervisor will help me with my troubles at work because I have a good *guanxi* with him/her
4. My supervisor provides me with adequate and timely information because I have a good *guanxi* with him/her
5. My supervisor gives me my favorite tasks because I have a good *guanxi* with him/her
6. My supervisor supports my career because I have a good *guanxi* with him/her

rate their agreement with the statements. A confirmatory factor analysis of a correlated two-factor solution with *renqing*-investments and *renqing*–rewards as latent factors showed acceptable fit among nurses ($\chi^2(df = 34) = 35.22$, GFI = 0.97, TLI = 1.00, CFI = 1.00, RMSEA = 0.01) and police officers ($\chi^2(df = 34) = 150.31$, GFI = 0.94, TLI = 0.92, CFI = 0.94, RMSEA = 0.09).

The hypotheses were tested using Structural Equation Modeling techniques as implemented in the IBM SPSS AMOS 21 (IBM-SPSS Inc., Chicago, IL, USA).

Results

Table 18.2 provides the means, standard deviations, reliabilities (Cronbach's alphas), and correlation coefficients for the study variables.

Two separate confirmatory factor analyses using latent indicators showed good fit of the measurement model for both nurses ($\chi^2(df = 70) = 153.74$, GFI = 0.93, GFI = 0.93, CFI = 0.95, TLI = 0.93, RMSEA = 0.07) and police officers ($\chi^2(df = 70) = 293.95$, GFI = 0.92, CFI = 0.94, TLI = 0.91, RMSEA = 0.08). All correlations were in the expected direction, except for the correlation between *guanxi* and burnout that was significantly positive among police officers. The standardized parameter estimates are shown in Fig. 18.1.

Table 18.2 Means (*M*), standard deviations (SD), internal consistencies (Cronbach's α on the diagonal, in italics), and correlations between the study variables for police officers (*N* = 463, lower half) and nurses (*N* = 261, upper half)

	Police		Nurses		t (722)	1	2	3	4	5	6
	M	SD	M	SD							
1. Workload	3.87	1.08	3.82	0.96	0.64	*0.86–0.78*	0.47**	0.31**	0.15*	0.25**	0.08
2. Mental Demands	4.34	1.17	5.07	0.98	−8.91**	0.69**	*0.76–0.87*	0.39**	0.07	0.10	−0.04
3. Physical demands	2.82	1.07	4.22	1.10	−16.61**	0.41**	0.41**	*0.74–0.88*	0.07	0.10	−0.12
4. Supervisor support	3.37	1.28	3.16	1.14	2.28*	0.25**	0.31**	0.17**	*0.87–0.80*	0.60**	0.42**
5. Colleague support	3.56	1.17	3.22	1.11	3.88**	0.31**	0.29**	0.26**	0.68**	*0.62–0.84*	0.36**
6. Job control	2.51	1.30	2.36	1.28	1.51	−0.13**	−0.03	−0.07	0.19**	0.10*	*0.81–0.79*
7. Participation in decision	2.39	1.17	2.49	1.24	−1.06	−0.07	−0.04	−0.08	0.182**	0.12**	0.59**
8. Renqing Reward	3.12	1.27	2.96	1.33	1.58	0.21**	0.18**	0.16**	0.29**	0.28**	−0.09*
9. Renqing investment	2.61	1.25	2.59	1.31	0.20	0.29**	0.19**	0.25**	0.17**	0.20**	−0.12**
10. Vigor	3.08	1.32	2.37	2.13	4.88**	0.13**	0.18**	0.03	0.35**	0.34**	0.08
11. Dedication	2.90	1.33	2.10	1.26	8.04**	0.20**	0.24**	0.07	0.36**	0.35**	0.15**
12. Absorption	2.82	1.41	2.02	1.27	7.81**	0.10*	0.15**	0.03	0.34**	0.29**	0.06
13. Exhaustion	3.02	1.35	3.48	1.25	−4.62**	0.48**	0.32**	0.40**	0.13**	0.21**	−0.20**
14. Cynicism	2.55	1.48	3.05	1.39	−4.54**	0.35**	0.16**	0.30**	0.08	0.12**	−0.27**
15. Commitment	3.61	1.14	2.96	1.17	7.72**	0.11*	0.15**	0.01	0.33**	0.32**	−0.03

	Police		Nurses		7	8	9	10	11	12	13	14	15
	M	SD	M	SD									
1. Workload	3.87	1.08	3.82	0.96	0.08	0.17**	0.16**	0.05	−0.07	−0.05	0.40**	0.36**	−0.09
2. Mental Demands	4.34	1.17	5.07	0.98	−0.08	0.03	0.01	0.06	−0.03	−0.05	0.23**	0.16*	−0.04
3. Physical demands	2.82	1.07	4.22	1.10	−0.17**	0.14*	0.12*	−0.14*	−0.22**	−0.25**	0.36**	0.36**	−0.23**
4. Supervisor support	3.37	1.28	3.16	1.14	0.34**	0.16*	0.04	0.14*	0.05	0.06	0.05	−0.01	0.02

(continued)

Table 18.2 (continued)

	Police		Nurses		7	8	9	10	11	12	13	14	15
	M	SD	M	SD									
5. Colleague support	3.56	1.17	3.22	1.11	0.39**	0.23**	0.21**	0.23**	0.12	0.12*	0.06	0.04	0.11
6. Job control	2.51	1.30	2.36	1.28	0.53**	0.06	0.07	0.11	0.20**	0.21**	−0.15*	−0.17**	0.17**
7. Participation in decision	2.39	1.17	2.49	1.24	0.84–0.92	0.19**	0.15*	0.27**	0.29**	0.29**	−0.17**	−0.14*	0.31**
8. *Renqing* Reward	3.12	1.27	2.96	1.33	−0.04	0.73–0.78	0.53**	0.27**	0.20**	0.22**	−0.02	0.02	0.12*
9. *Renqing* investment	2.61	1.25	2.59	1.31	−0.06	0.62**	0.66–0.77	0.17**	0.09	0.14*	0.02	0.06	0.21**
10. Vigor	3.08	1.32	2.37	2.13	0.21**	0.23**	0.17**	0.74–0.53	0.58**	0.61**	−0.19**	−0.19**	0.27**
11. Dedication	2.90	1.33	2.10	1.26	0.22**	0.26**	0.25**	0.84**	0.78–0.86	0.87**	−0.37**	−0.31**	0.47**
12. Absorption	2.82	1.41	2.02	1.27	0.17**	0.20**	0.23**	0.79**	0.84**	0.87–0.86	−0.39**	−0.34**	0.45**
13. Exhaustion	3.02	1.35	3.48	1.25	−0.23**	0.25**	0.33**	−0.11*	0.00	−0.11*	0.67–0.90	0.86**	−0.30**
14. Cynicism	2.55	1.48	3.05	1.39	−0.29**	0.25**	0.37**	−0.20**	−0.08	−0.12**	0.84**	0.70–0.92	−0.32**
15. Commitment	3.61	1.14	2.96	1.17	0.17**	0.32**	0.26**	0.56**	0.53**	0.53**	−0.12**	−0.16**	0.69–0.67

Note The differences between the mean scores of police officers and nurses on the study variables was tested using t tests with 722 df

* $p < 0.05$; ** $p < 0.01$
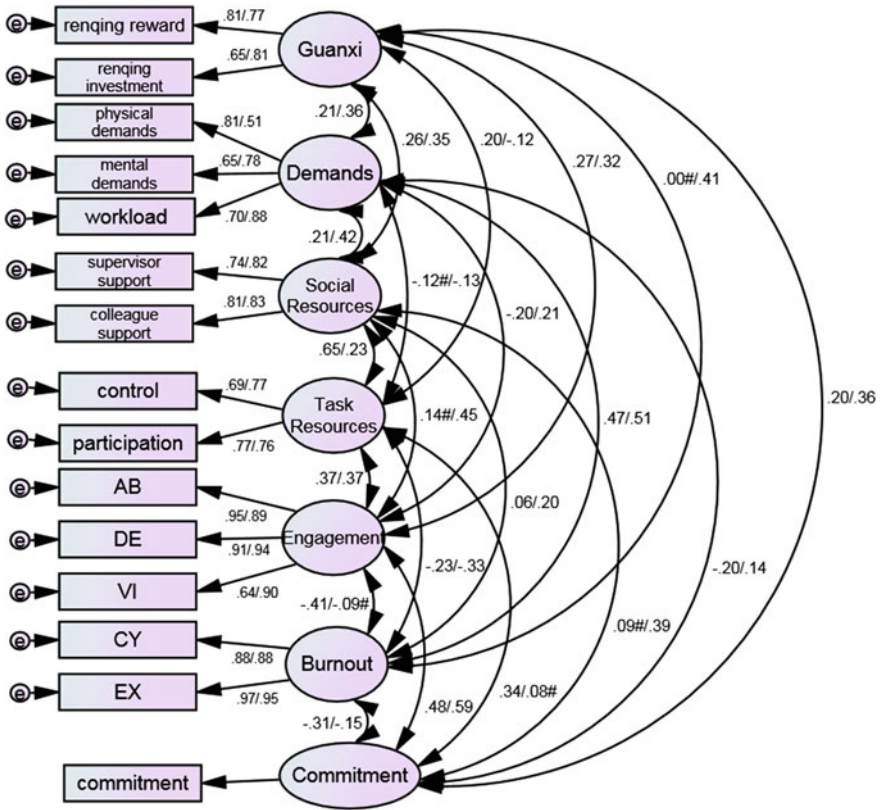
Fig. 18.1 Standardized estimates of the measurement model for 261 nurses (*left*) and 463 police officers (*right*), separately; *VI* vigor, *AB* absorption, *DE* dedication, *EX* exhaustion, *CY* cynicism; [#]$p \geq 0.05$

The presence or absence of common method variance was checked by conducting a multigroup Harman one-factor test. This test models the effect of the method factor at the measurement level. It does not require that the specific factor responsible for the method effect is measured, nor that the effects of the method factor on the measures are equal (cf. Podsakoff et al. 2012). A cross-sample one-factor model was estimated that was assumed to account for the associations among all latent factors. The poor fit of this model ($\chi^2(df = 171) = 1141.28$, GFI = 0.81, CFI = 0.82, TLI = 0.78, RMSEA = 0.09) implied that the associations among the measures were unlikely to be due to common method variance.

Next, model 2 (M_2) that included two types of resources (i.e., task resources and social resources) was tested and compared with the original JD-R model with one undifferentiated latent resources factor (M_1). Multigroup analysis indicated that the fit of M_2 was superior to that of M_1 across both samples; $\Delta\chi^2(\Delta df = 12) = 480.56$, $p < 0.001$ (cf. Table 18.3) (Hypothesis 1 confirmed).

Table 18.3 Multigroup analysis of the proposed JD-R model for nurses ($N = 261$) and police officers ($N = 463$)

Model	χ^2	df	CFI	GFI	TLI	RMSEA	$\Delta\chi^2$
Null model	5595.34	210	–	0.45	0.79	0.18	
M_1 (composite resources)	970.49	154	0.85	0.85	0.90	0.09	
M_2 (separated resources)	489.93	142	0.94	0.92	0.91	0.06	$M1 - M2 = 480.56{***}$
M_3 (correlated burnout and engagement)	447.68	140	0.94	0.93	0.92	0.06	$M2 - M3 = 42.25{***}$
M_4	450.08	144	0.94	0.93	0.92	0.05	$M4 - M3 = 2.40$, ns
M_5 (regression weights constrained)	514.96	158	0.94	0.92	0.91	0.06	$M5 - M4 = 64.89{***}$
M_5 Burnout → commitment constrained	453.31	145	0.94	0.93	0.92	0.05	$\Delta M = 3.23$, ns
M_5 Engagement → commitment constrained	451.86	145	0.94	0.93	0.92	0.05	$\Delta M = 1.79$, ns
M_5 Social resources → commitment constrained	457.77	145	0.94	0.92	0.92	0.06	$\Delta M = 7.69{**}$
M_5 Task resources → commitment constrained	459.90	145	0.94	0.92	0.92	0.06	$\Delta M = 9.82{**}$
M_5 Guanxi → commitment constrained	452.31	145	0.94	0.93	0.92	0.05	$\Delta M = 2.23$, ns
M_5 Guanxi → social resources constrained	451.10	145	0.94	0.93	0.92	0.05	$\Delta M = 1.03$, ns
M_5 Guanxi → task resources constrained	459.56	145	0.94	0.93	0.92	0.05	$\Delta M = 9.49{**}$
M_5 Demands → burnout constrained	454.84	145	0.94	0.93	0.92	0.05	$\Delta M = 4.76{*}$
M_5 Task resources → burnout constrained	451.20	145	0.94	0.93	0.92	0.05	$\Delta M = 1.12$, ns
M_5 Social resources → engagement constrained	456.33	145	0.94	0.92	0.92	0.05	$\Delta M = 6.26{*}$
M_5 Task resources → engagement constrained	452.83	145	0.94	0.93	0.92	0.05	$\Delta M = 2.75$, ns
M_5 Demands → engagement constrained	454.65	145	0.94	0.93	0.92	0.06	$\Delta M = 4.57{*}$
M_5 Guanxi → burnout constrained	460.32	145	0.94	0.92	0.92	0.05	$\Delta M = 10.24{**}$
M_5 Guanxi → engagement constrained	451.17	145	0.94	0.93	0.92	0.05	$\Delta M = 1.09$ ns
M_6 (covariances constrained)	466.82	149	0.94	0.92	0.92	0.05	$M6 - M4 = 16.63{**}$
M_6 Burnout ↔ engagement constrained	450.78	145	0.94	0.93	0.92	0.05	$\Delta M = 0.71$, ns
M_6 Task resources ↔ social resources constrained	451.47	145	0.94	0.93	0.92	0.05	$\Delta M = 1.40$, ns
M_6 Demands ↔ social resources constrained	457.30	145	0.94	0.92	0.92	0.06	$\Delta M = 7.21{**}$
M_6 Demands ↔ task resources constrained	450.19	145	0.94	0.93	0.92	0.05	$\Delta M = 0.12$, ns
M_6 Guanxi ↔ demands constrained	456.87	145	0.94	0.92	0.92	0.06	$\Delta M = 6.79{**}$

Note χ^2 chi-square, df degrees of freedom, *RMSEA* root mean square error of approximation, *TLI* Tucker–Lewis index, *CFI* comparative fit index
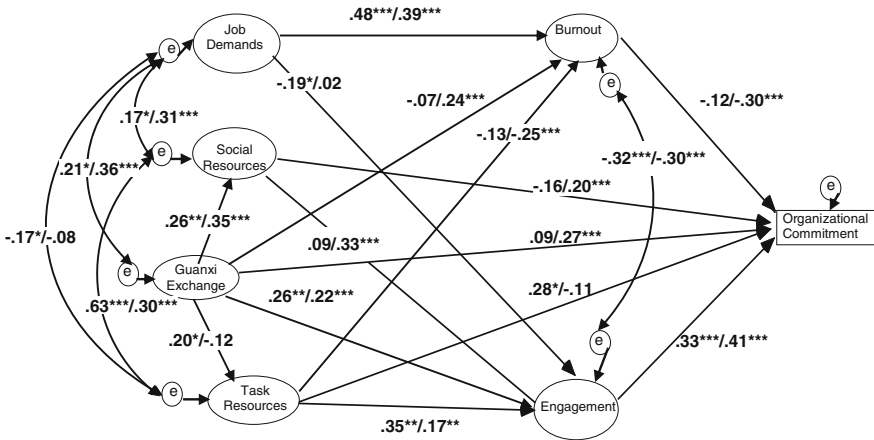
Fig. 18.2 The *multigroup* model with *guanxi* in the JD-R model for 261 nurses (*left*) and 463 police officers (*right*); *p < 0.05; **p < 0.01; ***p < 0.001

Since empirical studies found engagement and burnout might have part of their variance in common (Halbesleben 2010). Model (M_3) therefore allowed the residuals of burnout and engagement to correlate, showing a fit that was superior to that of M_2 ($\Delta\chi^2(\Delta df = 2) = 42.25$, $p < 0.001$).

After deleting two nonsignificant paths (demands → commitment, and social resources → burnout), Model 4 was accepted as the final model (cf. Fig. 18.2). The path linking *guanxi* to social resources was positive and significant among both nurses ($\beta = 0.26$, $p < 0.01$) and police officers ($\beta = 0.35$, $p < 0.001$) (Hypothesis 3 confirmed). Further, the path linking *guanxi* to task resources was positive and significant among nurses only ($\beta = 0.20$, $p < 0.05$) (*Hypothesis 2* partly confirmed). The path coefficient linking *guanxi* to work engagement was positive and significant among both nurses ($\beta = 0.26$, $p < 0.01$) and police officers ($\beta = 0.22$, $p < 0.001$) (Hypothesis 4 confirmed). The path linking *guanxi* to burnout was only positive and significant among police officers ($\beta = 0.24$, $p < 0.001$) (Hypothesis 5 not supported). Finally, the path linking *guanxi* to organizational commitment was positive and significant among police officers only ($\beta = 0.27$, $p < 0.001$) (Hypothesis 6 partly confirmed).

As two different samples were involved, the equivalence of M_4 across samples was tested with respect to the regression weights and the covariances. Compared to the unconstrained model (M_4), the fit of the models with equal regression weights (M_5) and with equal covariances (M_6) deteriorated significantly ($\Delta\chi^2(\Delta df = 14) = 64.89$, $p < 0.001$ and $\Delta\chi^2(\Delta df = 5) = 16.63$, $p < 0.01$, respectively). Thus, not all regression weights and covariances were the same for both samples.

Inspection of the separate covariances and regression weights revealed that two covariances and seven path coefficients were invariant across both samples (cf. Table 18.3). The correlations between job demands and social resources, and between job demands and *guanxi* exchange were both higher for police officers

(*r*s were 0.31 and 0.36, respectively, $p < 0.001$) than for nurses (*r*s were 0.17 and 0.21, $p < 0.05$). The path from job demands to burnout was positive and significant, but stronger for nurses ($\beta = 0.48$, $p < 0.001$) than for police officers ($\beta = 0.39$, $p < 0.001$). The path from job demands to engagement was only negative for nurses ($\beta = -0.19$, $p < 0.05$). Apparently, high job demands had stronger adverse effects for nurses than for police offices. The paths from social resources to work engagement and from social resources to commitment were positive and significant only for police officers ($\beta = 0.33$ and 0.20, $p < 0.001$, respectively), whereas the path from task resources to commitment was positive and significant only for nurses ($\beta = 0.28$, $p < 0.05$). Thus, task-related and social resources played a different role in both samples. This is exemplified by the fact that the path from *guanxi* to task resources was positive and only significant for nurses ($\beta = 0.20$, $p < 0.05$).

Sobel tests revealed that the indirect effects of *guanxi* on engagement and commitment (via social resources) were significant for police officers (Sobel = 3.88, $p < 0.001$ and Sobel = 3.15, $p < 0.01$, respectively). However, for nurses the indirect effects of *guanxi* on engagement and commitment (via task resources) were nonsignificant (Sobel = 1.76 and 1.70, ns). Hence, the indirect effect of *guanxi* on work outcomes occurred mainly through social resources.

Discussion

The current study contributes to the conceptual and cross-cultural development of the JD-R model by differentiating between task and social resources, and by including the typically Chinese interpersonal phenomenon of *guanxi*.

Main Findings

Multigroup analyses supported the distinction between social resources and task resources in both samples. The model with two separate types of job resources (i.e., social vs. task resources) fitted the data significantly better than a model with one, undifferentiated resource factor. Moreover, these two types of resources played different roles in the JD-R model. Whereas social resources were positively related to engagement and organizational commitment (for police officers), task resources were positively related to engagement (for both nurses and police officers), organizational commitment (for nurses), and negatively to burnout (for police officers).

Differences Between Nurses and Police Officers Although these findings show that social and task resources are distinct concepts, we found different patterns of results across both samples. Social resources were especially relevant as antecedents of engagement and commitment among police officers, whereas task resources took this place for nurses. These differences might be due to the different situations in

which nurses and police officers find themselves in today's China. For nurses, China's health care reform program—"New Health Care Reform Plan" has taken place in China since 2009 to improve medical services to ensure both quality and efficiency in the health care sector. The traditional health professionals-centered service model is currently gradually being replaced with a patient-centered model, meaning that increased patient needs and the application of medical technology healthcare require redesign of the structure and the processes of care provision. As a result, nurses' job demands have increased, both in terms of patient care as well as in relation to new medical technology. This is exemplified by the fact that job demands had stronger adverse effects for nurses than for police offices. However, Maslach and Leiter (1997) proposed that a good fit between employees and their work environment would result in positive work outcomes. Task resources such as job control and participating in decision-making are critically important for nurses to deal adequately with these increased demands, to achieve work-related power, and to empower patients, which should lead to higher organizational effectiveness. Therefore, those with easy access to task resources in demanding environment are more motivated and committed in their jobs.

Compared with nurses, social resources were more important for police officers' levels of engagement and commitment. The higher their job demands, the more social resources they had. Previous research has shown that social coping resources, especially social support, are needed to deal with demanding situations and events (McCreary and Thompson 2006). For example, police officers often rely on supervisors for information to deal with violent crime, and talking things over among coworkers are the most frequent form of coping utilized while on duty. Police officers who feel marginalized or excluded from their peer group not only suffer from a lack of acceptance but are also denied information, sponsorship and promotion opportunities (Ellison and Genz 1983). Thus, for these reasons social resources could be particularly important for police to stay engaged.

Guanxi and the JD-R Model Our findings revealed that *guanxi* could be integrated into the JD-R model, although its patterns of associations with other concepts differed across samples. Specifically, (1) *guanxi* was positively related to social resources among nurses and police officers, and to task resources among nurses; and (2) *guanxi* was positively related with engagement among nurses and police officers, while positively related with burnout among police officers. (3) *guanxi* was positively related to commitment, but only for police officers.

Guanxi is embedded in informal personal social interactions that take place in formal work situations. The social resources included in our study were based on work-related interactions but their availability was to a large degree influenced by the quality of *guanxi*, as exemplified by the positive relation between *guanxi* and social resources in nurses and police officers. Furthermore, the basis for a high-quality *guanxi* exchange between supervisor and employees lies in mutual trust, loyalty and obligation. In this sense *Guanxi* can be viewed as a means for nurses and police officers in maintaining a well-balanced social exchange

relationship with their supervisor to stay engaged. Interestingly, task resources were relatively important for nurses, suggesting that among nurses *guanxi* exchange with supervisors is more focused on task resources than among police officers. On the one hand, *guanxi* encourages perceptions of a relational psychological contract; that is, employees agree to contribute loyalty, trust, and continued membership while the organization provides competent management, participation, and a sense of belonging (Maguire 2002). On the other hand, the police subculture subjects its members to a strict operating code laden with discretion, secrecy, and solidarity in an attempt to insulate the officer from an uncaring and generally unsupported management structure, as well as a hostile public (Van Maanen 1978). This could explain why *guanxi* was associated with organizational commitment among police officers.

Guanxi exchange was positively associated with work engagement in both samples, but also was positively associated with burnout in police officers. It might reflect the complicated psychological dynamics involved in *guanxi*. On the one hand *guanxi* involves an emotional attachment that facilitates the development of high-trust workplaces, and people who report high levels of *guanxi* tend to believe they are being treated fairly (Chen et al. 2011), which can be assumed to lead to higher well-being (i.e., engagement). On the other hand, establishing high levels of *guanxi* requires high levels of effort, and these investments in the relationships with others are not always reciprocated equally—not even in the long run. Previous research has shown that investing much effort in a potentially unrewarding relationship can exhaust one's energy, elicit distress and negative emotions, and could lead to burnout. Thus, depending on the specific context, high levels of *guanxi* may have positive and/or negative effects on well-being.

Implications

Our findings have several implications for occupational stress research and practice. As regards theory, it seems that the dimensionality of the job resources concept should be reconsidered. Whereas previous research using the JD-R model usually focused on a compound job resources concept that included a wide variety of different resources, the current study suggests that a theoretical and empirical distinction between task resources and social resources is warranted. Further, in the practice of stress management, we propose to consider not only *formal* work-related interactions but also *informal* interpersonal relationships (such as *guanxi* reciprocity) when focusing on the effect of social resources on well-being. Particularly when these informal relations span organizational hierarchical boundaries, they may offer significant and rewarding benefits to individuals. From a societal perspective, it is important to acknowledge that *guanxi* exchange may promote employee well-being and work outcomes because good *guanxi* promotes trust and facilitates formal institutional support. It follows that employees and managers should be motivated to develop informal personal relationships in

organizations as well, especially in work situations where it is difficult to increase task resources. However, note that *guanxi* exchange may potentially also affect employee well-being negatively, especially when interpersonal relationships take precedence over the procedural justice rules in the process of resources distribution.

Conclusion

The current study shows that social resources and task resources play a different role in the JD-R model. Moreover, the Chinese notion of *guanxi* (exchange of favors) was successfully integrated into the JD-R model. This not only increases the applicability of the JD-R model in China, but also exemplifies how the JD-R model can be extended by integrating notions from non-Western cultures.

References

Chen, X. P., & Chen, C. C. (2004). On the intricacies of the Chinese guanxi: A process model of guanxi development. *Asia Pacific Journal of Management, 21*, 305–324.

Chen, Y., Friedman, R., Yu, E., & Sun, F. (2011). Examining the positive and negative effects of *guanxi* practices: A multi-level analysis of *guanxi* practices and procedural justice perceptions. *Asia Pacific Journal of Management, 28*, 715–735.

Cheung, M. F. Y., Wu, W., Chan, A. K. K., & Wong, M. M. L. (2009). Supervisor-subordinate Guanxi and employee work outcomes: The mediating role of job satisfaction. *Journal of Business Ethics, 88*, 77–89.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands-Resources model of burnout. *Journal of Applied Psychology, 86*, 499–512.

Ellison, K. W., & Genz, J. (1983). *Stress and the police officer*. Springfield, IL: Thomas.

Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: relationships with burnout, demands, resources, and consequences. In A. B. Bakker, & M. P. Leiter (Eds.), Work Engagement: A Handbook of Essential Theory and Research (pp. 102–117). New York, NY: Psychology Press.

Hu, Q., & Schaufeli, W. B. (2011). The convergent validity of four burnout measures in a Chinese sample A confirmatory factor-analytic approach. *Applied Psychology: An International Review, 60*, 87–111.

Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The Job Demands-Resources Model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior, 79*, 181–190.

Hu, Q., Schaufeli, W. B., & Taris, T. W. (2013). Does equity mediate the effects of job demands and job resources on work outcomes? An extension of the job demands-esources model. *Career Development International, 18*, 357–376.

Hui, C, & Lin, Z. (1996). *Regulating collective actions: A case of two cultural systems.* Paper presented at the Research Workshop on Global Organizations at Hong Kong University of Science & Technology.

Hwang, K. K. (1987). Face and favor: The Chinese power game. *American Journal of Sociology, 13*, 944–974.

Law, K. S., Wong, C. S., Wang, D., & Wang, L. (2000). Effect of supervisor–subordinate *guanxi* on supervisory decisions in China: An empirical investigation. *International Journal of Human Resource Management, 11*, 751–765.

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. *The Academy of Management Journal, 48*, 764–775.

Liljegren, M., & Ekberg, K. (2009). The associations between perceived distributive, procedural, and interactional organizational justice, self-rated health and burnout. *Work, 33*, 43–51.

Lovett, S., Simmons, L. C., & Kali, R. (1999). *Guanxi* versus the market: Ethics and efficiency. *Journal of International Business Studies, 30*, 231–247.

Maguire, H. (2002). Psychological contracts: Are they still relevant? *Career Development International, 7*, 167–180.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.

McCreary, D. R., & Thompson, M. M. (2006). Development of two reliable and valid measures of stressors in policing: The operational and organizational police stress questionnaires. *International Journal of Stress Management, 13*, 494–518.

Ouweneel, A. P. E., Taris, T. W., van Zolingen, S. J., & Schreurs, P. J. G. (2009). How task characteristics and social support relate to managerial learning. *Journal of Psychology, 143*, 28–44.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendation on how to control it. *Annual Reviews of Psychology*, *63*, 539–569.

Powell, W. W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior, 12*, 295–336.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relation with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293–315.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701–716.

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). *MBI—General survey*. Palo Alto, CA: Consulting Psychologists Press.

Tsui, A. S., & Farh, J. L. (1997). Where guanxi matters: Relational demography and guanxi in the Chinese context. *Work and Occupations*, *24*, 56–79.

Van Maanen, J. (1978). People processing: Major strategies of organizational socialization and their consequences. In J. Paap (Ed.), *New directions in human resource management*. Englewood Cliffs, NJ: Prentice-Hall.

Van Veldhoven, M., De Jonge, J., Broersen, S., Kompier, M., & Meijman, T. (2002). Specific relations between psychosocial job conditions and job-related stress: a three-level analytic approach. *Work & Stress*, *16*, 207–228.

Warren, D. E., Dunfee, T. W., & Li, N. (2004). Social exchange in China: The double-edged sword of *guanxi*. *Journal of Business Ethics, 55*, 355–372.

Weigl, M., Hornung, S., Parker, S. K., Petru, R., Glaser, J., & Angerer, P. (2010). Work engagement accumulation of task, social, personal resources: A three-wave structural equation model. *Journal of Vocational Behavior, 77*(1), 140–153.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Wong, Y. T., Ngo, H. Y., & Wong, C. S. (2003). Antecedents and outcomes of employees' trust in Chinese joint ventures. *Asia Pacific Journal of Management, 20*, 481–499.

Yum, J. (1988). The impact of Confucianism on interpersonal relationships and communicative patterns in East Asia. *Communication Monographs, 55*, 374–388.

Zhang, K. Z. (2001). The history of china. Beijing: Advanced Education Press.