

Self-Construals and Work/Family Conflict: A Monocultural Analysis in Taiwan

Luo Lu

National Taiwan University

The aim of this research was to explore the impact of independent and interdependent self-construals on relations between work and family demands (workload and family conflict) and work/family conflict (WFC and FWC). Three hundred and ten Taiwanese employees were surveyed at two times (6 weeks apart) using structured questionnaires. For Taiwanese employees, workload was positively related to WFC ($r = .39$), whereas family conflict was positively related to FWC ($r = .24$). Furthermore, independent self-construal exacerbated the positive relation between workload and WFC (the interaction effect accounted for an additional 1.7% of variance in WFC), but buffered the positive relation between family conflict and FWC (the interaction effect accounted for an additional 2.6% of variance in FWC). However, interdependent self-construal did not have a moderating effect on either the workload–WFC or family conflict–FWC relation. It is recommended that culture as construed at the individual level needs to be studied in order to understand its intricate effects on individuals' perceptions of work and family demands and conflict.

Keywords: work/family conflict, independent self-construal, interdependent self-construal, culture at the individual level

The potential impact that work and family (W/F) issues have on employees, family members, and organizations has caused a rising interest among researchers based in the developed Western countries. A clear connection between work and family stressors and employee strain on the work/family interface has now been established (e.g., Allen, Herst, Bruck, & Sutton, 2000; Byron, 2005; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). However, Kossek, Baltes, and Matthews (2011) estimated that over

This research was supported by a grant from the National Science Council, Taiwan, NSC97-2410-H-002-201-MY3.

Correspondence concerning this article should be addressed to Luo Lu, Department of Business Administration, National Taiwan University, No.1, Sec. 4, Roosevelt Road, Taipei 106, Taiwan, ROC. E-mail: luolu@ntu.edu.tw

95% of W/F studies are based on the Western samples. Hence, a major limitation in this literature is its decidedly Western focus.

With the economic transformation from labor-intensive manufacturing to high-tech industries, research has shown that Taiwanese workers are under increasing work stress (Kao & Lu, 2011; Lu, Cooper, Kao, & Zhou, 2003). Nonetheless, family life is still highly valued in this Chinese society (Lu, Chang, & Chang, 2012). Thus, Taiwanese people are now caught between the demands of work and family (Lu, Huang, & Kao, 2005). Conducting W/F research in this developing society is not only timely, but it can also provide empirical evidence to establish the generalizability of Western findings. Although there have been a few East versus West comparative studies (e.g., Hassan, Dollard, & Winefield, 2010; Spector et al., 2004; 2007), they have explored culture at the societal level, and used “nation” to represent “culture.” Conceptualizing culture at the individual level puts culture conceptions as manifested in the minds of individuals and not assigned by researchers. In this way, I am avoiding the “ecological fallacy” inherent in cross-cultural comparisons when culture is not measured but implied (Bond, 1998). The present study uses a *monocultural design* to examine the impact of independent and interdependent self-construals, as defined by Markus and Kitayama (1991), on the relationship between work and family demands with W/F conflict. This within-cultural approach can enable a more fine-grained analysis of “culture” as an individual difference factor.

W/F CONFLICT: AN OCCUPATIONAL STRESS PERSPECTIVE

Work/family conflict is “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respects” (Greenhaus & Beutell, 1985, p.77). The direction of conflict is particularly meaningful, because work-to-family conflict (WFC) and family-to-work conflict (FWC) are discernible with unique antecedents (Byron, 2005; Carlson, Kacmar, & Williams, 2000; Frone, 2003). However, evidence of within-domain effects (e.g., work demands are related to WFC only, whereas family demands are related to FWC only) is stronger than that of cross-domain effects (e.g., both work and family demands are related to WFC and FWC) (Byron, 2005; Ford, Heinen, & Langkamer, 2007; Michel et al., 2011). This study focuses on the within-domain effects, namely the work-load–WFC and family conflict–FWC relationships.

To date, much of the research on work and family issues has been conducted within the occupational stress perspective. For example, the scarcity hypothesis (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) proposes that people possess limited resources, such as time and energy, performing

multiple roles, which inevitably leads to resource competition and conflict. Work overload is likely to lead to working overtime and leave the individual exhausted and strained (Karasek & Theorell, 1990), thus unable to take on family duties after work, resulting in feelings of WFC. Similarly, heightened disagreement among family members requires extensive time and efforts to resolve the conflict (Kao & Lu, 2006); such deprivation of time and emotional energy will likely result in feelings of FWC. Thus, to fully understand the impact of WFC and FWC on employees, pressure from work and family domains, such as workload and family conflict, need to be examined.

A recent meta-analysis (Michel et al., 2011) established that among the significant relations found in the work domain, work overload had the largest relationship with WFC. Cross-cultural research has also revealed that workload is a more sensitive antecedent of WFC than more objective measures such as work hours (Spector et al., 2007). Thus, I will use workload as an indicator of work pressure in the present study.

Parallel in the family domain, family conflict has been found to have a strong relationship with FWC (Byron, 2005; Michel et al., 2011). While most existing studies used objective measures (e.g., counting number of young children) to index family responsibility, I believed that only when these family characteristics were perceived as “demands” would they then be related to W/F conflict. Family conflict has been reported as a major source of family pressure and highly demanding for Taiwanese couples (Kao & Lu, 2006). I thus attempted to capture the psychological reality of family pressure by assessing the level of family conflict, which is not often done in W/F research (Michel et al., 2011).

W/F CONFLICT IN A CULTURAL CONTEXT

The above literature review on work and family issues is largely based on studies conducted in the developed West. As pointed out by Spector et al. (2004), Western countries share a number of important characteristics in terms of economic development, family structure, legislative/institutional practices, and cultural values, such as individualism as opposed to collectivism.

Although recent studies conducted in mainland China, Taiwan, and other Asian countries (e.g., Hassan et al., 2010; Lu et al., 2005; Lu, Kao, Chang, Wu, & Cooper, 2008; Lu, Siu, Spector, & Shi, 2009) have confirmed the direct effects of work and family situational variables (e.g., work and family demands) on W/F conflict, as well as that of W/F conflict on individual well-being (e.g., health, role satisfaction) and organizational performance (e.g., decreased organizational commitment), individual difference factors

that may moderate such relations still need to be tested systematically in non-Western populations. In particular, the role of self-construal has never been analyzed in a W/F conflict study.

A major theoretical challenge facing researchers examining the relationship between culture and work–family issues concerns the definition of culture itself. Recently, we have become more aware that culture exists at multiple levels. It makes intuitive sense that individuals will, to some extent, differ from societal norms on any given dimension of culture. Researchers routinely observe individual differences among people within a specific culture in terms of the degree to which they adopt the attitudes, values, beliefs, and behavioral tendencies that, by consensus, define their culture (Triandis, 1995). Oyserman, Coon, and Kimmelmeier's (2002) review of the Individualism–Collectivism (I-C) literature has provided unequivocal evidence that the differences among countries on this key cultural dimension are neither consistent nor as substantial as Hofstede's (1994, 2001) framework predicts. They went on to suggest that cultural psychology needs reorientation, for instance, analyzing idiocentrism/allocentrism at the individual level as opposed to I-C at the societal level (Oyserman, Kimmelmeier, & Coon, 2002).

Markus and Kitayama (1991) proposed that independent and interdependent self-construals (hereafter referred to as independent and interdependent self) at the individual level correspond to I-C at the societal level. They assert that regardless of whether an individual lives in a collectivistic or individualistic culture, s/he can develop both self-construals, though cultural values shape a dominant self-construal (Cross, Hardin, & Gercek-Swing, 2011). For example, when individuals were primed to think from the lens of an interdependent self-construal, they were more likely to endorse Schwartz's (1992) benevolence and universalism values, whereas those who were primed with an independent self-construal were more likely to endorse Schwartz's values of power, achievement and self-direction (Gardner, Gabriel, & Lee, 1999). Furthermore, in a study conducted in Taiwan, Lu (2008) found that the endorsement of individual-oriented self was enhanced in response to an "I" pronoun prime, whereas the endorsement of social-oriented self was enhanced in response to a "we" pronoun prime. These results suggest that situational context makes accessible to one's mind the independent or interdependent self-construal.

To better understand the evolving nature of the self-system in the Chinese cultural context, Lu (2003, 2006, 2007, 2008) proposed the "bicultural self" as a way of capturing the effects of cultural changes on individuals' self-conceptualizations. The term "bicultural" here does not refer to individuals who grow up in or influenced by two different national cultures and thus may possess two different cultural identities, rather it refers to an emerging self-system that intricately integrates the traditional Chinese con-

struct of “self-in-relation” (interdependence) with the Western construct of “independent and autonomous self” (independence). The “Chinese bicultural self” is a refinement and extension of Markus and Kitayama’s (1991) self-construal framework to the Chinese context. Empirical evidence has shown that the integration of the independent and interdependent self is advantageous for Chinese people living in a quickly changing society (Lu, 2009; Lu, Kao, Chang, Wu, & Zhang, 2008; Lu & Yang, 2006), thus underlying the importance of analyzing the role of self-construal, specifically in the W/F conflict domain. Recently, Lu et al. (2012) found in a qualitative study that the independent and interdependent self did influence Taiwanese employees’ constructed meanings of work and family, as well as the ways they manage demands of each role. The link between the Chinese bicultural self-system and individual functioning in work and family needs to be tested using quantitative methods and extended to a more general population.

I propose that there might be a moderating role of independent/interdependent self-construal in the link between work/family situational variables and WFC/FWC. The core of the independent self is the conception of the person as a bounded, coherent, stable, autonomous, independent, and free entity (Lu, 2003; Markus & Kitayama, 1991). People with a strong independent self prioritize individual goals over group goals, emphasizing personal autonomy and accomplishments. They live to work, and view achievements as prerequisites for the meaning in life and happiness (Lu, 2008). Previous research showed that Taiwanese employees with a stronger independent self regarded work as more important than family (Lu et al., 2005). In-depth interviews also revealed that people with a strong independent self viewed the needs of the self and the family as distinct, thus were prone to experience distress when aspirations at work conflicted with family role obligations (Lu et al., 2012). Specifically, when work demands and responsibilities mounted, people prioritizing work over family devoted even more time and efforts at work, resulting in a further deprivation of time and energy for family life (Greenhaus & Powell, 2006).

As excessive efforts spent in work pursuits are seen as being devoted to the self and neglecting the family (Yang, Chen, Choi, & Zou, 2000), absorption at work may result in the individual’s feelings of guilt and family members’ feelings of resentment (Lu et al., 2012). It is thus conceivable that independent self would intensify the impact of work demands on WFC. This expectation is also consistent with the cross-cultural findings that people from individualistic cultures suffered greater WFC due to work demands than people from collectivistic cultures (Lu, Gilmour, Kao, & Huang, 2006; Spector et al., 2004, 2007).

Further, perhaps because people with a strong independent self view the work and family domains as separate, they are more inclined to leave problems and worries at home, thereby actively preventing family troubles

from spilling over to the work domain (Lu et al., 2012). Research has found that individuals tend to experience more WFC than FWC in the West (Frone, 2003) and in Asia (Hassan et al., 2010), indicating that permeability from family to work is more difficult than vice versa. On the basis of the above findings, independent self might help buffer the impact of family demands on FWC, due to the desire to protect the priority of work over family.

Hypothesis 1: Independent self-construal will moderate the relationship between work/family demands and W/F conflict, such that (1a) the positive relationship between workload and WFC will be stronger for individuals high on independent self, and (1b) the positive relationship between family conflict and FWC will be weaker for individuals high on independent self.

In contrast to the role of independent self-construal, the core of an interdependent view of self is the conception of oneself as a connected, fluid, flexible, committed being who is bound to others (Lu, 2003; Markus & Kitayama, 1991). The Confucian culture strongly advocates the priority of the collective (especially family) welfare, rewards self-control, diligent role performance, and rigorous self-cultivation. People with a strong interdependent self do not view work as a means of enhancing the self, rather it is viewed as a means of supporting the family. Work is a means to making a living and family prosperity is a prerequisite for the meaning in life and happiness (Lu, 2008).

Previous research suggested that Taiwanese people with a stronger interdependent self regarded family as more important than work (Lu et al., 2005). Specifically, when work demands and responsibilities mount, people who prioritize family over work view work demands as serving the needs of the family (e.g., making money) and work responsibilities as opportunities to improve the living standards of the family (e.g., obtaining higher social status) (Yang et al., 2000). It is suggested, therefore, that not only will individuals with an interdependent self-construal experience less feelings of guilt for working, but their family members are less likely to see work as competing with family life, thereby being more tolerant even supportive of the person's efforts at work and less likely to resent the person for having less time and energy for the family (Lu et al., 2012). Indeed, Taiwanese people were found to have a greater tolerance of spillover from work to family than from family to work (Lu et al., 2005). It is thus conceivable that interdependent self would buffer the impact of work demands on WFC. This expectation is also consistent with cross-cultural findings that people from collectivist cultures suffered less WFC due to work demands than people from individualistic cultures (Lu et al., 2006; Spector et al., 2004, 2007).

Furthermore, as people with a stronger interdependent self value family more than work, and regard “the most important function of the individual as the maintenance and preservation of the household” (Redding, 1993, p. 490), the demarcation between work and family is blurred and flexible. They thus tend to be more affected by problems and worries at home, and less able to block family troubles from intruding to the work domain (Lu et al., 2012). For example, Taiwanese women are expected to sacrifice their careers or jobs to fulfill socially sanctioned family role obligations and serve family needs if called for (Wang, 1999; Yi & Chien, 2001). For this reason, it is expected that an interdependent self might intensify the negative impact of family demands on FWC, due to the desire to protect the priority of family over work.

Hypothesis 2: Interdependent self-construal will moderate the relationship between work/family demands and W/F conflict, such that (2a) the positive relationship between workload and WFC will be weaker for individuals high on interdependent self, and (2b) the positive relationship between family conflict and FWC will be stronger for individuals high on interdependent self.

To summarize, the present study contributes to the work/family literature and compliments existing cross-cultural studies in several ways. First, I examined both WFC and FWC in a Chinese cultural context, explicitly measuring individual-level consequences of culture, that is, independent and interdependent self. Second, I explored the role of independent and interdependent self as moderators in the work/family demands–W/F conflict relations, which has never been done. Third, I expanded this study population to employees of different marital and/or parenthood statuses, as worldwide surveys (Byron, 2005; Spector et al., 2004; 2007) indicated that W/F conflict was not restricted to married people or those with children.

METHOD

Sample and Procedure

Participants in this study were full-time employees working in different organizations of diverse industries across Taiwan. Data were collected at two time points with 6 weeks in between, to measure demands and conflict separately. Data were collected from multiple companies to represent as wide a variety of sectors/industries as possible. A variety of recruitment methods were used. For example, some participants were enrolled in executive education programs and recruited in classes (65.9% of the final sample); some

were recruited through personal contacts (22.7% of the final sample); and some were invited to participate through personnel managers in various organizations (11.4% of the final sample). Preliminary analyses revealed no significant differences in response rate and mean scores on the focal research variables due to recruitment methods.

At Time 1 (T1), along with the first questionnaire, participants received a cover letter informing them of the purpose of the study, the commitment required, and assuring them of anonymity. Participants completed structured questionnaires at their leisure and returned them in sealed envelopes labeled with an address and stamp provided either to researchers or to their contact persons within a week. Response rates were 100% and 96% for each of the two waves, respectively. At the end of the study period, 310 participants had complete data (overall retention rate of 96%). Briefing and strong commitment of the contact persons, repeated reminders, and offering of a token gift (about US\$4 of worth) for staying in the study might all have contributed to such a high retention rate.

The sample was 49% male and 51% female, with a mean age of 36.52 ($SD = 10.70$, range = 19–64). Just over half of the sample (51%) was married. Among those who were married, 84.5% had children. Mean years of formal education was 15.72 (roughly equivalent of 3 more years after high school, $SD = 1.94$). Over a quarter of the respondents (28%) were managers at various levels. More people worked in manufacturing (20.2%), service industry (16.2%), and culture and education (15.9%) than other occupations (e.g., commerce/trading, medicine, civil servants). No respondents changed their jobs or marital status during the study period.

Measures

The survey was administered in Mandarin Chinese, and all the Chinese version scales had been used in previous studies with satisfactory reliability and validity. These references, along with the references for the original English versions, will be given with the introduction of each scale below. Work/family demands and self-construals were measured at T1, while W/F conflict was measured at T2. For all the research variables, a total sum was created for the composite, as shown in Table 1.

Work Demands

Quantitative workload was used to indicate work demands. Five statements from the Quantitative Workload Inventory (QWI, Spector & Jex,

Table 1. Means, Standard Deviations (SD), Range, Cronbach's α (on the Diagonal), and Correlations for the Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Sex	/										
2. Age	.04	/									
3. Marital status	-.06	.70***	/								
4. Job position	-.08	.23***	.24***	/							
5. Education years	-.10	-.17**	-.05	.13*	/						
6. Workload	.10	.02	.09	.07	.21**	/					
7. Family conflict	-.07	-.20**	-.11	.01	.05	.82	/				
8. Independent self	.02	.18**	.17**	.14*	.03	.05	-.10	.91			
9. Interdependent self	.05	.09	.13*	.04	.01	.12	-.12	.65***	.92		
10. WFC	-.10	.05	.12	.12	.14*	.39***	.25***	-.08	-.06	.94	
11. FWC	-.12	.11	.17**	.10	.06	.13*	.24***	-.13*	-.16**	.64***	.91
Mean	/	36.52	/	/	15.72	18.02	9.90	48.89	51.25	12.60	10.76
SD	/	10.70	/	/	1.94	3.29	3.53	6.69	6.83	4.16	3.36
Range	/	19-60	/	/	9-22	5-25	4-20	9-63	12-63	5-25	5-25
	1	2	3	4	5	6	7	8	9	10	11

Note. Sex: 0 = male, 1 = female; Marital status: 1 = married, 0 = not married; Job position: 1 = manager, 0 = nonmanager.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

1998) were listed, describing quantitative aspects of work demands (e.g., “How often is there a great deal to be done?”). Five-point rating scales were used to measure how often these conditions applied to participants’ work (1 = *never*, 5 = *always*). A higher score represented higher levels of workload. The Chinese version of QWI was used in Lu, Siu, and Lu (2010) and Spector et al. (2007), with good psychometric property. The internal consistency (Cronbach’s alpha, the same index for each variable below) of the QWI was .82 in the current sample as presented on the diagonal of Table 1.

Family Demands

Family conflict was used to indicate family demands. Four items from the Family Conflict Scale (FCS, Kao & Lu, 2006) were used covering major aspects of potential conflict in Chinese families (e.g., “How often is there a disagreement regarding sharing of household chores in your family?”). The other items pertain to filial piety, communication/expression, and friends/social relationships. Previous research in Taiwan demonstrated that both married and nonmarried people could relate to these aspects of family life, albeit they may use different reference points to draw on their own “family” experiences (Chang & Lu, 2009). Five-point rating scales were used to measure how often these conditions applied to participants’ family life (1 = *never*, 5 = *always*). Thus, a higher score represented a higher level of family conflict. This scale was originally developed in Chinese. The internal consistency of the FCS was .84 in the current sample. This variable also had a correlation coefficient of .46 with a one-item measure of overall perceived family stress (which is not included in this paper), indicating some degree of convergence with the family demands construct.

W/F Conflict

To correspond to the dual-direction conceptualization, the Work–Family Conflict Scale (WFCS, Netemeyer, Boles, & McMurrian, 1996) was used to assess WFC and FWC separately. Sample items are: “The amount of time my job takes up makes it difficult to fulfill family responsibilities” (for WFC) and “I have to put off doing things at work because of demands on my time at home” (for FWC). Five-point rating scales were used (1 = *completely disagree*, 5 = *completely agree*), with higher scores representing high levels of WFC and FWC. The Chinese version of WFCS was recently used in Chang, Lu, and Kuo’s study (2012) with acceptable validity. The internal consistency of the WFC scale was .94 and that of the FWC scale was .91 in the current sample.

Self-Construals

The Independent and Interdependent Self Scales (IISS; Lu & Gilmour, 2007) were used to assess personal endorsement of independent and interdependent self-construals, as conceptualized by Markus and Kitayama (1991). The short version used in the present study had 18 items (9 for independent self, 9 for interdependent self) that were rated on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) with higher scores representing high levels of independent and interdependent self-construals. Sample items are: “I believe that people should fully live up to their capabilities in any circumstances” (for independent self) and “I believe that people should perform their social roles well” (for interdependent self). This scale was originally developed in Chinese. The internal consistency of the independent self was .91 and that of the interdependent self was .92 in the current sample.

In addition, information on sex (coded male = 0, female = 1), age, marital status (coded married = 1, not married = 0), education attainment (in years), job position (coded managers = 1, nonmanagers = 0) were recorded. These were intended as control variables.

RESULTS

Confirmatory Factor Analysis

I conducted confirmatory factor analysis (CFA) to test for convergent and divergent validity of the six research variables (constructs) in the present study: workload, family conflict, WFC, FWC, independent self, and interdependent self. According to Hair, Black, Babin, Anderson, and Tatham (1998), convergent validity may be established when (1) all individual items loaded significantly on their constructs, (2) composite reliability as an indicator of the internal consistency of a construct is greater than .70, and (3) the average variances extracted, which represents the percentage of variances in a latent construct that can be explained by its indicators (observed variables), is greater than .50. CFA revealed that all scale items loaded significantly ($p < .001$, all loadings $> .50$) on their designated construct, indicating acceptable validity. Composite reliability for the six constructs ranged from .83–.97, indicating acceptable internal consistency of all constructs. The average variances extracted for the six constructs ranged from .51–.92, indicating acceptable convergence of observed indicators to their designated constructs. All constructs in this study demonstrated good convergent validity.

Discriminant validity may be established when relations between different constructs are weaker than those within each construct (Hair et al., 1998). In other words, when examining a correlation matrix (see Table 1), the square root of average variances extracted should be greater than all correlation coefficients involving the construct. In this study, the square root of average variances extracted was .70, .71, .86, .81, .80, and .86 for workload, family conflict, WFC, FWC, independent self, and interdependent self, respectively, and are greater than all correlation coefficients involving each of the constructs. Thus, the discriminant validity was acceptable for all of the study constructs.

Hypothesis Testing

Means, standard deviations, and bivariate correlations for all study variables are presented in Table 1. As can be seen in the table, workload and family conflict each correlated significantly with WFC and FWC, respectively. Some demographic variables had significant correlations with the study variables, thus they were included in further analyses as control variables. Although previous research has consistently found that the independent and interdependent self-construals moderately correlated with each other (e.g., Lu & Gilmour, 2007; $r = .65$ in this study), concern of multicollinearity was addressed in regression analyses reported below. The two self-construals were entered simultaneously in the regression analyses in order to control for their correlation.

Moderated regression analyses were employed to test the hypotheses (Cohen, Cohen, West, & Aiken, 2003). Following procedures suggested by Cohen et al., predictors were standardized and interaction terms were created from these standardized predictors. When predicting WFC, control variables (i.e., sex, age, marital status, job position, education years) were entered into the equation first (Step 1). At Step 2, workload was entered. At Step 3, self-construals were entered. Finally at Step 4, the products of workload and independent self, as well as workload and interdependent self were entered.

As shown in Table 2, workload positively related to WFC, indicating a main effect of work demands on WFC. Neither of the two self-construals related to WFC. However, the hypothesized interaction, between workload and independent self-construal (H1a), was significant in Step 4 (plotted in Figure 1). Simple slope analyses indicated that both slopes significantly differed from zero ($p < .001$ for both); they also significantly differed from each other, $t = -2.14$, $p < .05$. The pattern of interaction supports H1a. Namely, for individuals high on independent self, the relationship between workload and WFC was more positive ($b = 1.21$, SE of $b = .26$) than that

Table 2. Hierarchical Regression Analysis Predicting WFC With Self-Construals as Moderators

Dependent variable		WFC			
Step	Predictors	β	β	β	β
1	Sex	-.001	-.049	-.044	-.045
	Age	-.010	-.009	-.005	-.003
	Marital status	-.110	-.082	-.092	-.086
	Job position	.083	.071	.081	.088
	Education years	.131	.051	.054	.050
2	Workload (WL)		.369***	.378***	.374***
3	Independent self (IND)			-.091	-.082
	Interdependent self (INT)			-.058	-.058
4	WL \times IND				-.252**
	WL \times INT				.090
	Total R^2	.042	.169	.183	.200
	ΔR^2	—	.127***	.014	.017*
	Final F	2.153	8.300***	6.978***	5.997***

Note. Sex: 0 = male, 1 = female; Marital status: 1 = married, 0 = not married; Job position: 1 = manager, 0 = nonmanager.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

for individuals low on independent self ($b = .75$, SE of $b = .16$). Yet, the hypothesized interaction between workload and interdependent self-construal (H2a) was not significant.

When predicting FWC, control variables (i.e., sex, age, marital status, job position, education years) were entered into the equation first (Step 1). At Step 2, family conflict was entered. At Step 3, self-construals were entered. Finally, at Step 4, the products of family conflict and independent self, family conflict and interdependent self were entered.

As shown in Table 3, family conflict positively related to FWC, indicating a main effect of family demands on FWC. Neither of the two self-

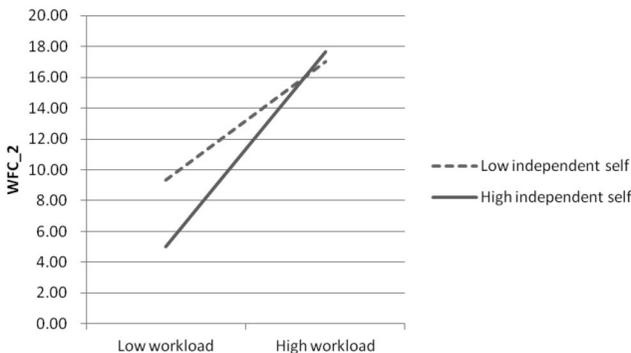


Figure 1. The moderating effect of independent self-construal on the workload–WFC relationship.

Table 3. Hierarchical Regression Analysis Predicting FWC With Self-Construals as Moderators

Dependent variable		FWC			
Step	Predictors	β	β	β	β
1	Sex	-.103	-.089	-.082	-.075
	Age	-.048	.098	.111	.090
	Marital status	-.113	-.117	-.130	-.121
	Job position	.044	.031	.042	.064
	Education years	.047	.046	.052	.055
2	Family conflict (FC)		.259***	.243***	.229***
3	Independent self (IND)			-.096	-.092
	Interdependent self (INT)			-.090	-.091
4	FC \times IND				-.283***
	FC \times INT				.120
	Total R^2	.042	.106	.133	.159
	ΔR^2	—	.064***	.027*	.026*
	Final F	2.399*	5.391***	5.193***	5.070***

Note. Sex: 0 = male, 1 = female; Marital status: 1 = married, 0 = not married; Job position: 1 = manager, 0 = non-manager.

* $p < .05$. ** $p < .01$. *** $p < .001$.

construals related to FWC. However, the hypothesized interaction between family conflict and independent self-construal (H1b) was significant in Step 4 (plotted in Figure 2). Simple slope tests indicated that the two slopes did not significantly differ from each other ($t = .73, ns$). However, the pattern of interaction supported H1b. Namely, for individuals low on independent self, the relationship between family conflict and FWC was positive $b = .31$ (SE of $b = .14$), and significantly different from zero ($p < .05$); for individuals high on independent self, the relationship between family conflict and FWC was only slightly positive, $b = .11$ (SE of $b = .23$), and not significantly different from zero. Based on the significant Beta coefficient ($-.28, p <$

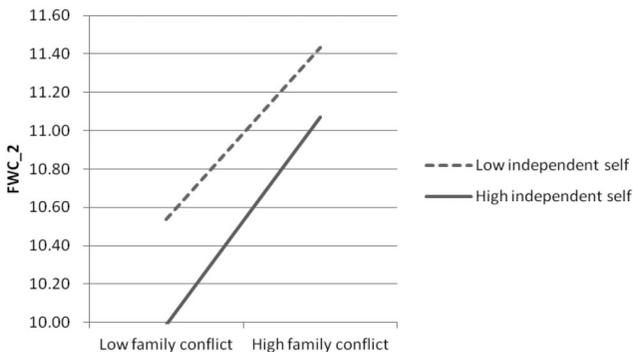


Figure 2. The moderating effect of independent self-construal on the family conflict–FWC relationship.

.001) and the direction of the effect, H1b was tentatively supported. However, the hypothesized interaction between family conflict and interdependent self-construal (H2b) was not significant. Overall, H1 pertaining to the moderating effects of independent self was supported (effect size .017 and .026 in R^2), whereas H2 pertaining to the moderating effects of interdependent self was not supported.

DISCUSSION

The focus of the present study is the moderating role of self-construal on the relationship between family or work demands and W/F conflict. Results indicate that although some Western results generalize nicely to the Chinese context, a more refined view of the role of self-construal on work and family roles is necessary. Corroborating previous Chinese studies (Chang & Lu, 2011; Lu et al., 2005, 2008), workload had a consistent positive relationship with WFC, explaining nearly 13% of the variance. Also, family conflict had a consistent positive relationship with FWC, explaining more than 6% of the variance. This finding resonates with previous Chinese studies showing that homemaking efforts (Lu et al., 2005), having to care for young children (Lu et al., 2008), and perceived family responsibilities (Chang & Lu, 2011) related to FWC. Taken together, these findings highlight the need to include family variables in W/F research, as family has been largely understudied (cf. Byron, 2005; Michel et al., 2011).

Further, results suggest that the relationships between work/family demands and W/F conflict are influenced by Chinese culture. Therefore, it is imperative to take a closer examination of various aspects of the culture that influence demand–conflict relationships. In this study, a refined theoretical framework of bicultural self, represented in terms of independent and interdependent self, was employed. Results show that independent self moderated work/family demands–W/F conflict relations. Based on the theory of bicultural self, Hypothesis 1 predicted stronger work demands–WFC and weaker family demands–FWC relations among people with a strong independent self.

Theoretical explanation for these cultural moderation effects concerns core features of the independent self, proposing that individuals with a strong independent self regard the needs of the self and the family as distinct, and might even prioritize work. These individuals tend to perceive time and energy devoted to work as striving for achievement and self-actualizing, but nonetheless competing with their duties to the family. As a result, when work demands increase, they would perceive and experience more interference with family life. However, when family pressure increases, they would

defend the work priority to prevent negative spillover from family life, thus experiencing less interference with work life. These patterns of culture operating at the individual level are congruent with results found in cross-cultural studies, namely people in individualistic societies suffered more WFC from work demands than their counterparts in collectivistic societies (Lu et al., 2006; Spector et al., 2004; 2007). This study extends these cross-cultural comparisons to demonstrate that culture as manifested in individual's cognitive perspective, impacts family-to-work interactions as well.

Although study findings support H1, the results do not support Hypothesis 2. Interdependent self did not moderate work/family demands–W/F conflict relations. The Chinese interdependent self is deeply rooted in the Confucian perspective of “self-in-relation” tradition. Viewing oneself in relation with others crosses the work and family domains and thus each domain might be intertwined instead of separated. The findings at the individual level of analysis is showing that for those who view the two domains as separate, demands from one can create conflict due to spillover, but for those who view the two domains as intimately intertwined, demands from one domain does not necessarily result in conflict between the two domains. It might even be plausible that an interdependent self-construal helps temper the effects of demands on conflict. The role of self-construals certainly deserves more research attention in the context of W/F conflict.

Another possible reason for the nonsignificance of interdependence as a moderator lies in the living arrangement of a typical Chinese society. Traditionally, Chinese view work and family as interrelated and tend to be tolerant of spillover from work to family; the demarcation between work and family is far from rigid in daily life (Redding, 1993). Working and living merge seamlessly, and this is still the spirit in the contemporary Taiwanese society (Lu et al., 2005). Devotion to work is not only a highly praised Confucian virtue, but also tolerated by the family as a necessary evil, or even regarded as an insurance for job security and career advancement (Lu et al., 2012). It is plausible that people with strong interdependence practicing a traditional role script may be more tolerant of work and family interaction, thus suppressing any exacerbating or buffering effects.

Although this study focused on self-construal as a moderating factor of the W/F demands–W/F conflict relationships, there is also indication that differences would arise due to sex. Past studies have shown that men and women differ in their self-construals and family and work foci. Women are more relational and men are more agentic (Cross & Madson, 1997). Moreover, work seems to be a more focal point in men's identity than in women's identity, which is geared more toward family (Cinamon & Rich, 2002). Therefore, it is reasonable to expect men and women to differ in their reports

of work–family conflict. However, post hoc analyses of sex effects on study variables and relationships revealed no significant differences between men and women. More specifically, using data from a large nationwide representative sample in Taiwan, Lu et al. (2008) found no evidence of sex differences in either WFC or FWC. In fact, lack of differences between men and women at the mean level of W/F conflict seems to be the rule rather than the exception in recent studies of independent samples of Taiwanese employees (e.g., Chang & Lu, 2011; Chang et al., 2012).

This counterintuitive finding makes sense when considering societal modernization. Numerous evidence have suggested that Chinese people are leveling with or even surpassing their Western counterparts in individualistic values, attitudes, and self-construal (e.g., Lu & Yang, 2006). This “psychological modernizing” trend is particularly salient for the young (current sample had a mean age of 36), female (current sample had 51% of females), educated, and urban residents in the Chinese world (Lu & Kao, 2002; Lu & Yang, 2006). Thus, both men and women are facing the challenge of balancing work and family roles; family is no longer the main domain for women nor is the work domain the dominant one for men (Lu et al., 2012). If anything, Taiwanese men reported higher FWC than women (Lu et al., 2005). That said, sex might still be a significant factor in W/F relationships. Although I tested and failed to find sex as a moderator of the demands–conflict relationships in this study, a previous one did note that there were different factors salient for each sex within W/F conflict context (Chang & Lu, 2011). Specifically, help from the spouse was a salient predictor of WFC for men, whereas help from parents was a salient predictor of WFC for women. Furthermore, supervisory support and organizational family values helped men (but not women) reduce FWC. It seems that sex needs to be analyzed more closely in future W/F studies.

Limitations, Future Directions, and Conclusions

This study has made a contribution to bridging some gaps of knowledge in work/family issues. The two-wave data collection design, separating the measurement of demands and conflict variables, is a methodologically more rigorous attempt to control for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), thus enabling better understanding of the demand–conflict relations.

However, before drawing conclusions, there are certain methodological limitations which should be kept in mind. This study used self-report survey methodology to collect data, which may increase the possibility of contam-

ination of the reported relationships through common method bias. Although this two-wave study design might remedy this shortcoming to a certain extent, we followed Podsakoff et al. (2003) and conducted a Harman's one-factor test to rule out the threat that all items converge on a single latent construct due to CMV. When all items were subjected to an exploratory factor analysis using Maximum Likelihood to extract factors, six factors emerged and the first one accounted for only 11.37% of the total variance. This shows that common method bias may not be a serious bias in this study. Nonetheless, future studies will benefit from collecting data from multiple sources.

Despite its limitations, the current study showed that some relations of work/family demands and work/family conflict generalize across people with either independent or interdependent self-construals. Moreover, close examination of the relationships between the two groups of individuals shows that a high independent self-construal intensifies the extent to which work demands spillover to work–family conflict, but a low independent self-construal intensifies the spillover of family demands on family–work conflict. Future efforts should further broaden the scope of study by including more data from the family domain, to give the “silent partner” of the work/family interaction a greater voice.

Finally, while the present study employed an occupational stress/scarcity approach, future studies could emphasize essential benefits of fulfilling multiple roles (Greenhaus & Powell, 2006). It would be interesting to test the extent to which independent and interdependent self influence the extent to which individuals see multiple roles as a source of profits rather than costs. It would also be interesting to replicate this study in stereotypically individualistic cultures to check for the universality of the moderating role of interdependent and independent self on the work/family demands and conflict relationships. Theoretically, this relationship would be invariant across cultures.

Perhaps the most important implication of this study is that how we perceive ourselves in relation to others influences the links between work and family demands and conflict. In this way, the present study at the individual level of analysis within one society corroborates cross-cultural findings that belonging to a collectivistic culture buffers the detrimental effects of work/family demands on WFC (Lu et al., 2006; Spector et al., 2004; 2007), and those of WFC on work/family outcomes (Lu et al., 2010; Spector et al., 2007). The present findings highlight that finer-grained, within-culture analyses are imperative if there are to be interventions associated with these study constructs, particularly because almost everyone is bicultural in today's global world (Lu & Yang, 2006; Markus & Kitayama, 1991).

REFERENCES

- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278–308. doi:10.1037/1076-8998.5.2.278
- Bond, M. H. (1998). Social psychology across cultures: Two ways forward. In J. G. Adair, D. Betanger, & R. L. Dion (Eds.), *Advances in psychological science* (Vol. 1, pp. 137–150). East Sussex, UK: Psychology Press.
- Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior, 67*, 169–198. doi:10.1016/j.jvb.2004.08.009
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior, 56*, 249–276. doi:10.1006/jvbe.1999.1713
- Chang, T. T., & Lu, L. (2009). The effects of resource loss and resource gain on work-family conflict: The perspective of resource conservation. *NTU Management Review, 20*, 69–98.
- Chang, T. T., Lu, L., & Kuo, C. Y. (2012). Effects of work resources on work-to-family conflict and work outcomes. *Organization and Management (in Chinese), 5*, 101–135.
- Chang, Y. Y., & Lu, L. (2011). Sex differences in the relationships between work and family demands, resources, and work-family conflict. *International Journal of Commerce and Strategy, 3*, 25–38.
- Cinamon, R. G., & Rich, Y. (2002). Profiles of attribution of importance to life roles and their implications for the work-family conflict. *Journal of Counseling Psychology, 49*, 212–220. doi:10.1037/0022-0167.49.2.212
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: LEA, Inc.
- Cross, S. E., Hardin, E. E., & Gercek-Swing, B. (2011). The what, how, why, and where of self-construal. *Personality and Social Psychology Review, 15*, 142–179. doi:10.1177/1088868310373752
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin, 122*, 5–37. doi:10.1037/0033-2909.122.1.5
- Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology, 92*, 57–80. doi:10.1037/0021-9010.92.1.57
- Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 143–162). Washington, DC: APA. doi:10.1037/10474-007
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). “I” value freedom, but “we” value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science, 10*, 321–326. doi:10.1111/1467-9280.00162
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *The Academy of Management Review, 10*, 76–88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review, 31*, 72–92. doi:10.5465/AMR.2006.19379625
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Hassan, Z., Dollard, M. F., & Winefield, A. H. (2010). Work-family conflict in East vs. West countries. *Cross Cultural Management, 17*, 30–49. doi:10.1108/13527601011016899
- Hofstede, G. (1994). *Values Survey Module 1994 manual*. Maastricht, The Netherlands: University of Limburg.
- Hofstede, G. (2001). *Culture's consequences, Second Edition*. Thousand Oaks, CA: Sage.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York, NY: John Wiley & Sons, Inc.

- Kao, S. F., & Lu, L. (2006). The relationship of conjugal congruence in psychological traditional/modernity to marital adjustment. *Indigenous Psychological Research in Chinese Societies*, 25, 47–100.
- Kao, S. F., & Lu, L. (2011). Group differences in work stress and strains: A large sample analysis based on the theoretical model of OSI. *NTU Management Review*, 22, 239–272.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work*. New York, NY: Basic Books.
- Kossek, E. E., Baltes, B. B., & Matthews, R. A. (2011). Innovative ideas on how work-family research can have more impact. *Industrial and Organizational Psychology*, 4, 426–432. doi:10.1111/j.1754-9434.2011.01367.x
- Lu, J. F., Siu, O. L., Spector, P. E., & Shi, K. (2009). Antecedents and outcomes of a fourfold taxonomy of work-family balance in Chinese employed parents. *Journal of Occupational Health Psychology*, 14, 182–192. doi:10.1037/a0014115
- Lu, L. (2003). Defining the self-other relation: The emergence of a composite self. *Indigenous Psychological Research in Chinese Societies*, 20, 139–207.
- Lu, L. (2006). The transition to parenthood: Stress, resources and gender differences in a Chinese society. *Journal of Community Psychology*, 34, 471–488. doi:10.1002/jcop.20110
- Lu, L. (2007). The individual- and social-oriented self-views: Conceptual analysis and empirical assessment. *US-China Education Review*, 4, 1–24.
- Lu, L. (2008). The individual- and social-oriented Chinese bicultural self: Testing the theory. *The Journal of Social Psychology*, 148, 347–374. doi:10.3200/SOCP.148.3.347-374
- Lu, L. (2009). “I or we”: Family socialization values in a national probability sample in Taiwan. *Asian Journal of Social Psychology*, 12, 145–150. doi:10.1111/j.1467-839X.2009.01276.x
- Lu, L., Chang, T. T., & Chang, Y. Y. (2012). The meanings of work and family and their roles in coping with work and family conflict: Practicing the Chinese bicultural self. *Indigenous Psychological Research in Chinese Societies*, 37, 141–190.
- Lu, L., Cooper, C. L., Kao, S. F., Chang, T. T., Allen, T. D., Lapiere, L. M., . . . Spector, P. E. (2010). Cross-cultural differences in work-to-family conflict and role satisfaction: A Taiwanese-British comparison. *Human Resource Management*, 49, 67–85. doi:10.1002/hrm.20334
- 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. doi:10.1108/02683940310494359
- Lu, L., & Gilmour, R. (2007). Developing a new measure of independent and interdependent views of the self. *Journal of Research in Personality*, 41, 249–257. doi:10.1016/j.jrp.2006.09.005
- Lu, L., Gilmour, R., Kao, S. F., & Huang, M. T. (2006). A cross-cultural study of work/family demands, work/family conflict, and well-being: The Taiwanese vs. British. *Career Development International*, 11, 9–27. doi:10.1108/13620430610642354
- Lu, L., Huang, M. T., & Kao, S. F. (2005). The bi-directional conflict of work and family: Antecedents, consequences and moderators. *Research in Applied Psychology*, 27, 133–166.
- Lu, L., & Kao, S. F. (2002). Traditional and modern characteristics across the generations: Similarities and discrepancies. *The Journal of Social Psychology*, 142, 45–59. doi:10.1080/00224540209603884
- Lu, L., Kao, S. F., Chang, T. T., Wu, H. P., & Cooper, C. L. (2008). Work/family demands, work flexibility, work/family conflict, and their consequences at work: A national probability sample in Taiwan. *International Journal of Stress Management*, 15, 1–21. doi:10.1037/1072-5245.15.1.1
- Lu, L., Kao, S. F., Chang, T. T., Wu, H. P., & Zhang, J. (2008). The individual- and social-oriented Chinese bicultural self: A sub-cultural analysis contrasting mainland Chinese and Taiwanese. *Social Behavior and Personality*, 36, 337–346. doi:10.2224/sbp.2008.36.3.337
- Lu, L., Siu, O. L., & Lu, C. Q. (2010). Does loyalty protect Chinese workers from stress? The role of affective organizational commitment in the Greater China region. *Stress & Health*, 26, 161–168. doi:10.1002/smi.1286

- Lu, L., & Yang, K. S. (2006). The emergence and composition of the traditional-modern bicultural self of people in contemporary Taiwanese societies. *Asian Journal of Social Psychology, 9*, 167–175. doi:10.1111/j.1467-839X.2006.00195.x
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253. doi:10.1037/0033-295X.98.2.224
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work–family conflict: A meta-analytic review. *Journal of Organizational Behavior, 32*, 689–725. doi:10.1002/job.695
- Netemeyer, R. G., Boles, J. S., & McMurrin, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*, 400–410. doi:10.1037/0021-9010.81.4.400
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analysis. *Psychological Bulletin, 128*, 3–72. doi:10.1037/0033-2909.128.1.3
- Oyserman, D., Kemmelmeier, M., & Coon, H. M. (2002). Cultural psychology, a new look: Reply to Bond (2002), Fiske (2002), Kitayama (2002), and Miller (2002). *Psychological Bulletin, 128*, 110–117. doi:10.1037/0033-2909.128.1.110
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903. doi:10.1037/0021-9010.88.5.879
- Redding, S. G. (1993). *The spirit of Chinese capitalism*. New York, NY: De Gruyter.
- Schwartz, S. J. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York, NY: Academic Press.
- Spector, P. E., Allen, T. D., Poelmans, S., Lapiere, L. M., Cooper, C. L., O'Driscoll, M., . . . Widerszal-Bazyl, M. (2007). Cross-national differences in relationships of work demands, job satisfaction and turnover intentions with work-family conflict. *Personnel Psychology, 60*, 805–835. doi:10.1111/j.1744-6570.2007.00092.x
- Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., . . . Lu, L. (2004). A cross-national comparative study of work/family stressors, working hours, and well-being: China and Latin America vs. the Anglo world. *Personnel Psychology, 57*, 119–142. doi:10.1111/j.1744-6570.2004.tb02486.x
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology, 3*, 356–367. doi:10.1037/1076-8998.3.4.356
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview.
- Wang, T. K. (1999). Relationships among gender role beliefs, family commitment, work commitment, and work values. *Indigenous Psychological Research in Chinese Societies, 11*, 59–89.
- Yang, N., Chen, C. C., Choi, J., & Zhou, Y. (2000). Sources of work-family conflict: A Sino-U.S. comparison of the effects of work and family demands. *Academy of Management Journal, 43*, 113–123. doi:10.2307/1556390
- Yi, C. C., & Chien, W. Y. (2001). Continued employment among married women: Compromise between the family and work institutions. *Taiwanese Journal of Sociology, 1*, 149–182.

Received July 17, 2012

Revision received September 17, 2012

Accepted September 21, 2012 ■