

WORK AND FAMILY ROLE ADJUSTMENT OF DIFFERENT TYPES OF GLOBAL PROFESSIONALS: SCALE DEVELOPMENT AND VALIDATION

Margaret Shaffer, B. Sebastian Reiche, Mihaela Dimitrova, Mila Lazarova, Shoshi Chen, Mina Westman and Olivier Wurtz

Version October 2015

To be published in *Journal of International Business Studies*

Copyright © 2011-2015 Margaret Shaffer, Sebastian Reiche, Mihaela Dimitrova, Mila Lazarova, Shoshi Chen, Mina Westman and Olivier Wurtz. All rights reserved.

B. Sebastian Reiche

IESE Business School
Managing People in Organizations Department
Ave. Pearson 21, Barcelona 08034, Spain
Tel: +34 93 253 4200
E-mail: sreiche@iese.edu
<http://blog.iese.edu/expatriatus>

Acknowledgements

This research was supported by a grant from the US–Israel Bi-national Science Foundation (BSF), number 2009106, by funding from the Ministry of Economy and Competiveness of Spain (Project No. ECO2012-33544), and by funding from the Canada Research Chairs program. An earlier version of this article was presented at the 2013 AIB conference. The authors would like to thank the two anonymous reviewers and JIBS area editor Mary Zellmer-Bruhn for their insightful comments and guidance.

Work and family role adjustment of different types of global professionals: Scale development and validation

Abstract

Although the original model of expatriate adjustment proposed by Black and colleagues (Black, 1988; Black & Stephens, 1989) has received substantial empirical support, it has come under increased academic scrutiny, due to both the conceptual overlap among its dimensions and its limited applicability for global professionals who interact with individuals from diverse cultures. Drawing on role theory, we conceptualize and develop a multidimensional scale of the work and family role adjustment of global professionals. We assess this scale through five interlocking studies using data from a total of 1,231 corporate and self-initiated expatriates, international business travelers, and global domestics. After confirming the scale's dimensionality, we provide evidence for convergent, discriminant, nomological, and predictive validity. We also demonstrate differences in levels of adjustment and in relationships between work and family demands and resources and their respective forms of adjustment across various types of global professionals. We contribute to international business research, and the organizational behavior and work-family literatures, by offering a theoretically based scale that assesses adjustment to both work and family roles for a wide range of global employees. Our scale further lends itself as a diagnostic tool during the selection, training and support of global professionals and their families.

Keywords: global professionals; adjustment; construct development and evaluation; role theory; demands and resources; work and family roles.

Adjustment has been the linchpin of expatriate research since the seminal work by Black and his colleagues was published more than 25 years ago (Black, 1988; Black & Gregersen, 1991a, 1991b; Black & Stephens, 1989). The dimensionality of expatriate adjustment (i.e., adjustment to work, interacting with host country nationals, and the general cultural environment) and the relationships proposed in the Black, Mendenhall, and Oddou (1991) model of adjustment have generally been supported (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Shaffer, Harrison, & Gilley, 1999), providing us with a good foundation for understanding expatriate experiences. While corporate expatriates continue to play a vital role in the operations of multinational corporations (MNCs), the high costs associated with their assignments and the difficulties of recruiting and retaining expatriates have led MNCs to consider alternative forms of *global professionals*. Defined as individuals whose job requires them to either live in a foreign country, travel internationally, and/or regularly interact with business associates living in or from a different country (i.e., cross-cultural interactions), global professionals include traditional corporate expatriates as well as self-initiated expatriates, frequent international business travelers, short-term assignees, global virtual team members, and global domestics (see Shaffer, Kraimer, Chen, & Bolino, 2012, for definitions and defining characteristics). Insofar as all of these global professionals experience transitions to novel cultural work and/or social environments, adjustment is a potentially important input to their success.

A key challenge for understanding more about the adjustment of this increasingly broader spectrum of global professionals, some of whom traverse multiple cultures and/or interact with host nationals of many countries, has to do with the measurement of adjustment. Existing conceptualizations of adjustment tend to focus on the traditional corporate expatriate who is assigned to a specific host country and the dimension of interaction adjustment targets the host nationals of that country. Furthermore, as research on expatriate adjustment has evolved, scholars have increasingly scrutinized measures of this construct. For example, despite the pervasive and persistent use of Black and Stephens' (1989) conceptualization and measurement of adjustment, some researchers have raised concerns about the theoretical basis for the three dimensions, noting in particular that the dimensions are not theoretically discrete and were developed statistically rather than theoretically (e.g., Hippler, Caligiuri, Johnson, &

Baytalskaya, 2014; Lazarova & Thomas, 2012; Shaffer & Harrison, 1998). In addition, scholars have argued that existing models of adjustment (Aycan, 1997; Black et al., 1991; Searle & Ward, 1990) do not capture all relevant aspects of adjustment. In line with these criticisms, Lazarova, Westman, and Shaffer (2010) proposed a reconceptualization of adjustment as a set of affective responses to changes in work and family roles that occur as a result of relocating to a foreign country.

Building on the work of Lazarova et al. (2010), we also conceptualize adjustment as affect. This approach is consistent with past management research (see Black et al. 1991), and it taps into one of the three facets of adjustment (i.e., cognitive, affective, and behavioral) recently introduced by Haslberger, Brewster, and Hippler (2013). This broader conceptualization of adjustment is consistent with research on cross-cultural adaptation; notably, work by Ward and colleagues (e.g., Ward & Chang, 1997; Ward & Kennedy, 1992; 1999), who distinguish between psychological and sociocultural adjustment. Psychological adjustment represents an affective component (i.e., psychological and emotional well-being and satisfaction), whereas sociocultural adjustment reflects a behavioral component (i.e., the ability to “fit in”, to acquire culturally appropriate skills, and to negotiate interactive aspects of the host culture). Haslberger et al. (2013) suggested that while the three facets are likely related, one may not necessarily be equally adjusted on all three dimensions, and the outcomes of the three facets may differ. While we recognize the value of integrating cognitive, affective and behavioral aspects of role transitions, our goal here is to revisit the dominant view of adjustment and provide a new perspective of assessing adjustment as an affective construct. Rather than offering a comprehensive model, we aim to increase the clarity of a construct that has been criticized for its lack of solid theoretical foundation and to develop a tool that captures our approach empirically. Our choice to focus on the affective component of adjustment is also in line with the framework of expatriate performance put forward by Lazarova et al. (2010), who distinguish among four components: cognition, affect, conation and behavior (see also Huitt, 1999, as cited by Lazarova et al., 2010), and view adjustment as the affective component in this process.

To better clarify the content of adjustment for multiple forms of global professionals, we draw upon role theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Katz & Kahn, 1978) to offer a

conceptualization of work and family role adjustment and develop a multidimensional scale that captures the construct. According to role theory, individuals assume different roles as they participate in various social structures (Biddle, 1986; Katz & Kahn, 1978). For example, a person may adopt both the role of a parent (i.e., a family role) and the role of a manager (i.e., a work role). Within each role that a person adopts there are role expectations that represent behaviors that the person holding the role is expected to perform (Biddle, 1986). These could be tasks, responsibilities, and activities that other actors within the role expect the role taker to perform (Katz & Kahn, 1978). For example, within the family role, children may expect their parents to attend various school-organized activities regularly. Therefore, adjusting to or being comfortable with a particular role entails not only accepting the role tasks and responsibilities, but also successfully navigating relationships with other actors within the role (e.g., one's children or one's co-workers). Within these relationships, roles are defined and redefined, and developing and maintaining high-quality relationships within a role is essential for successful role functioning. Thus, effective navigation of a particular in-role environment involves adaptation to associated tasks and responsibilities, as well as the relationships inherent within that role.

Definitions

Building on the above arguments, we define *role adjustment* as *the degree of psychological comfort the role incumbent feels towards the tasks and responsibilities of a particular role and towards navigating relationships with other actors in the role*. Although role adjustment is universal and relevant across a broad spectrum of roles and contexts, we find it especially pertinent to focus on the work and family domains of global professionals. Geographical and cultural transitions experienced by global professionals are indeed a catalyst for changes in both the work and family contexts (Lazarova et al., 2010). Historically, international business scholars have generally focused on the realm of work. Although they have recognized the importance of the families of global professionals (e.g., Punnett, 1997), they have seldom addressed family issues explicitly. The term “family”, although it may have different forms and perceptions, is well defined with specific and quite rigid borders. In contrast, the concept of non-work may refer to activities and responsibilities within the family domain as well as to a

wide range of activities and obligations beyond one's own family situation, such as volunteering, spirituality and leisure, among other life facets (Rothausen, 2011). Accordingly, there is no consensus about what the non-work domain comprises. Furthermore, while the boundaries between work and non-work are fading, the boundaries between work and family are quite clear. Thus, we believe we gain from the decision to focus on work and family as the two main representations of life domains.

Within the work context, global professionals are often burdened by increased job responsibilities, excessive travel, or the complexities of interacting with diverse others, leaving them less time to spend with family members (Shaffer & Harrison, 2001). Within the family context, global professionals often have to take on new roles and responsibilities. For example, the expatriate usually becomes the sole earner and provider for the family and their partner becomes a household caretaker, having not only lost a job but also foregone a career, financial independence, and extended family support (Punnett, 1997). By contrast, for international business travelers, the family often has to assume additional responsibilities that are abdicated because of the employee's frequent absences (Mayerhofer, Hartmann, & Herbert, 2004). In addition, for global professionals, the boundaries between the work and home contexts become more permeable as organizations provide additional support for the family while family members also become more dependent on each other's support (Caligiuri, Hyland, Joshi, & Bross, 1998). Role theory suggests that this permeability increases the salience of the transitions between each role and thus makes the enactment of each role more challenging (Ashforth, Kreiner, & Fugate, 2000).

Purpose

The purpose of this research is to develop and validate a role adjustment scale, comprising both work and family dimensions where each entails task and relationship components, for global professionals. To assess the scale's validity across different types of global professionals, we use data from four distinct types of global professionals. The first is traditional *corporate expatriates* (CEs), defined as individuals temporarily (i.e., 3-5 years) relocated by organizations to a foreign unit to complete a specific task or goal (Harrison, Shaffer, & Bhaskar-Shrinivas, 2004). The second group is *self-initiated expatriates* (SIEs), generally defined as individuals who initiate and typically finance their own

expatriation, often with no definite time frame in mind but with the intention of returning to their home country at some point (Cerdin & Selmer, 2014; Shaffer et al., 2012). The third group includes frequent *international business travelers* (IBTs) who are defined as those who make numerous but short (e.g., for 1 or 2 weeks) visits to foreign operations (Welch, Welch, & Worm, 2007). The fourth group is termed *global domestics* (GDs); these are professionals who remain in the home country but have job responsibilities that require them to interact with individuals in or from other countries (Shaffer et al., 2012). In addition to validating our scale across these various groups, we also explore possible differences among them with respect to both levels of adjustment and relationships between various work and family demands and resources and their respective forms of adjustment.

In developing and validating a role adjustment scale for global professionals, we offer several contributions to both international business studies and the organizational behavior literature. In contrast with existing adjustment scales (e.g., Black and Stephens' 1989 measure), our scale is theoretically grounded and it addresses changing roles in both the work and family domains. Our scale will provide researchers with a useful theoretical tool for examining how both work and family conditions affect global professionals. Because it is sensitive to the growing diversity of global forms of employment, our scale is suitable for all global professionals. Recognizing that the role requirements and experiences of different types of global professionals may influence their adjustment to work and family roles, we conceptualize and empirically demonstrate differences in (1) the degree to which various types of global professionals experience work and family role adjustment, and (2) the effects of demands and resources for CEs and SIEs. In doing so, we inform theory about adjustment to global work and family contexts. For organizational behavior scholars, we offer a broader perspective on role adjustment. While most role adjustment literature has been confined to organizational newcomers (e.g., Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007), we contend that adjustment is an ongoing process that is required constantly and not just when employees make career changes. Rather, employees must respond to constant changes in role content and environment, especially in the context of global work. For example, role content may change as a global professional may be both an expatriate and a frequent international business traveler.

As global professionals transition across cultures, role environments change and require adaptation. Given changes in family structures and systems, our consideration of both work and family role adjustment is potentially relevant to work-family researchers as well.

In the following sections, we develop a work and family role adjustment scale that entails both task and relationship dimensions, and we validate it through five interlocking studies. In Study 1, we assess the scale's dimensionality using a sample of international business travelers. In Study 2, we examine convergent and discriminant validity using data from CEs. In Study 3, we assess mean level differences in work and family adjustment for four types of global professionals: CEs, SIEs, IBTs, and GDs. In Study 4, we assess nomological validity and test the proposed relationships with data from both CEs and SIEs. In Study 5, we demonstrate predictive validity with longitudinal data from CEs and SIEs.

ITEM GENERATION

Since there is sufficient theoretical basis and past research in the area of work and family roles, we used a deductive approach to generate the items for our work and family role adjustment scale (Hinkin, 1998). We first reviewed several existing conceptualizations and measures of expatriate adjustment (Black, 1988; Black & Stephens, 1989; Hippler & Caligiuri, 2009; Searle & Ward, 1990; Ward & Kennedy, 1999). Four of the authors independently reviewed these items, selecting those that specifically targeted the work or family domains and eliminating items that had to do with the foreign environment. We then compared items and further reduced the list by removing redundant items. Only a few items actually tapped into the tasks and relationships associated with the work or family role, so we retained these to maintain some continuity with the literature on the measurement of expatriate adjustment. Further, recognizing a shortage of appropriate items that fit our theory and role-based definition of adjustment, the same four authors independently created several new items by considering both prior research and our chosen theoretical underpinning (DeVellis, 2012). After jointly reviewing these and eliminating redundant items, we independently categorized all items into one of the four theoretically based dimensions of task and relationship forms of work and family adjustment. We then

discussed our categorizations and reached agreement about the appropriateness of the items. Through this process, we generated 16 items, including 7 for work adjustment and 9 for family adjustment. For each domain, we included items that captured adjustment to the task (4 for work and 4 for family) as well as the relationships (3 for work and 5 for family) within a role.

STUDY 1: DIMENSIONALITY OF ROLE ADJUSTMENT

Having generated 16 items to assess work and family role adjustment, each with task and relationship facets, we conducted this first study to explore and confirm scale dimensionality. In this process, we also sought to reduce the number of items in the scale (Hinkin, 1998).

Methods

Data collection and sample. Using Qualtrics, an online data collection panel, we collected data from 491 participants who indicated that they were IBTs. In exchange for their participation, respondents were given reward points that they could redeem for merchandise. This method of data collection provided for a sampling of individuals across many occupations and industries (Montes & Zweig, 2009). The industries in our sample included communication, finance, healthcare, manufacturing, and services, among others. To conduct initial validity tests, we randomly split the data into two unique samples to first (Sample 1, n = 245) explore the factor structure and then (Sample 2, n = 246) do a confirmatory factor analysis (CFA). Demographic information for the two samples is presented in Table 1. In addition, 45% of the participants in Sample 1 traveled internationally for business one to three times each quarter, 43% traveled one to three times each month, and 12% traveled one to three times each week. In Sample 2, 39% traveled internationally for business one to three times each quarter, 46% traveled one to three times each month, and 15% traveled one to three times each week.

Table 1 goes about here

Measures. To assess the role adjustment scale, we used the 16 items initially generated (see Table 2). Respondents were asked to rate (from 1 = not at all to 5 = to a great extent) the extent to which they felt comfortable with each aspect of their global employment experience.

Results

To provide initial evidence of the factor structure of the proposed scale, we examined the item-correlations and conducted exploratory factor analysis (EFA) using Sample 1. An inspection of the item-correlations revealed that all items were positively and significantly correlated with each other. The EFA was used to explore the factor structure of the proposed scale and to reduce the number of items to six within work role adjustment and six within family role adjustment, in order to arrive at a minimum of three items per task and relational component and equally represent each component in the scale. The analysis was conducted using the maximum likelihood extraction method and promax rotation.

Initial factor loadings are presented in Table 2. Three factors emerged with eigenvalues greater than 1. However, the third factor was not meaningful, with only one item from the work adjustment dimension cross loading on this factor. Thus we removed the cross-loading item and shortened the scale by evaluating factor loadings. In the end, we retained two factors that meaningfully represented the higher order factors of work role adjustment and family role adjustment. All items had a factor loading of at least .67, which exceeds the minimum factor loading of .40 as recommended by Nunnally (1978). The internal consistency reliability for work role adjustment was .90 and the reliability for family role adjustment was .93. The two dimensions were significantly correlated ($r = .49, p < .001$)

Table 2 goes about here

To further assess the dimensionality of the role adjustment construct, we conducted a CFA with the second-order hypothesized factor structure (DeVellis, 2012; Gorsuch, 1983) in Sample 2. This second-order factor model comprised work task adjustment and work relationship adjustment as part of the work role adjustment second-order factor and family task adjustment and family relationship

adjustment as part of the family role adjustment second-order factor. The chi-square of this model was 155.60 with 49 degrees of freedom. The model fit was good (CFI = .973; RMSEA = .086; SRMR = .061). All items had a factor loading above the .40 threshold (Nunnally, 1978) (see Figure 1).

To demonstrate the superiority of retaining four lower-order factors, we compared the four-factor model with four alternative models. Results indicate that the best fitting model was the four-factor model ($\chi^2 = 155.53$; $df = 48$; CFI = .97, RMSEA = .09, SRMR = .06). The alternative models demonstrated a significantly worse fit: three-factor model with family task and family relationship combined ($\Delta\chi^2 = 30.73$; $\Delta df = 3$, $p < .001$), three-factor model with work task and work relationship combined ($\Delta\chi^2 = 61.40$; $\Delta df = 3$, $p < .001$), work and family two-factor model ($\Delta\chi^2 = 91.70$; $\Delta df = 5$, $p < .001$), one-factor model ($\Delta\chi^2 = 468.65$; $\Delta df = 6$, $p < .001$). We also compared our proposed model consisting of two second-order factors (i.e., work and family role adjustment) with a model consisting of only one second-order factor (i.e., role adjustment). The model with two second-order factors fit the data significantly better ($\Delta\chi^2 = 78.98$; $\Delta df = 1$, $p < .001$). Internal consistency reliabilities for the higher-order factors of work role adjustment and family role adjustment were .88 and .93, respectively. Reliabilities for each subscale were also good (work role task adjustment, $\alpha = .81$; work role relationship adjustment, $\alpha = .84$; family role task adjustment, $\alpha = .88$; family role relationship adjustment, $\alpha = .87$). Within-domain dimensions, however, were highly correlated: $r = .71$, $p < .001$ for work task and relationship forms of adjustment and $r = .81$, $p < .001$ for family task and relationship aspects.

In sum, the results from Study 1 provide evidence for the factor structure of the proposed work and family role adjustment scale. The EFA revealed two factors corresponding to the higher-order factors of work role adjustment and family role adjustment. The subsequent CFA provided evidence for the higher-order factor structure, where each second-order factor (i.e., work role adjustment and family role adjustment) had two lower-order factors representing the task and relationship aspects of role adjustment.

Figure 1 goes about here

STUDY 2: CONVERGENT AND DISCRIMINANT VALIDITY

We conducted Study 2 to empirically demonstrate the convergent and discriminant validity of our scale in the global employment context. Convergent validity is established when a scale relates to existing measures of the construct or to other similar measures, while discriminant validity represents the extent to which a scale differs from other measures (Campbell & Fiske, 1959). Since no other measures of work and family role adjustment exist, and because we incorporated some items from existing adjustment scales, we assessed relationships between our scale and other constructs to which it is theoretically related. These include work and family role performance and work and family role engagement. We also examined the relationships among the work and family role adjustment factors.

Work and family role performance represents the extent to which individuals fulfill the obligations and expectations associated with work and family roles (Chen, Shaffer, Westman, Chen, Lazarova, & Reiche, 2014; Welbourne, Johnson, & Erez, 1998). These constructs usually correlate with work and family role adjustment. In fact, research has found that when expatriates are not adjusted to their work environment, they are more likely to perform poorly (Black & Gregersen, 1991a). Moreover, both work and family role performance have dimensions that separately assess task and relationship (contextual) performance, similar to the proposed work and family role adjustment measure. In addition, Black's (1988) conceptualization of adjustment incorporates the idea that good in-role performance is an outcome of adjustment. However, despite their similarity, the constructs remain separate since accepting and being comfortable with work and family roles (i.e., adjustment) is not the same as performing well within these roles (i.e., performance). In addition, work and family role adjustment can be best viewed theoretically as antecedents of work and family role performance (Lazarova et al., 2010).

Work role engagement and family role engagement represent the degree to which an individual will have high psychological presence and focus when engaging in work- or family-role activities (Kahn, 1990; Rothbard, 2001). Engagement is another construct theoretically related to work and family role adjustment because global professionals are likely to experience high engagement within the work and

family domain only if they are adjusted to the respective role (Lazarova et al., 2010). Role engagement, however, is also distinct from adjustment since engagement can be viewed as a deeper form of role involvement than adjustment. For example, being adjusted to the role responsibilities within the family might mean that an individual is also engaged when performing these activities; but this engagement requires an extra step of immersion into the role, not merely adjustment to the role obligations and expectations. In addition, while engagement has been established as a motivation-based construct (Kahn, 1990), adjustment represents more of an affective psychological state. Based on these considerations, we proposed the following hypotheses.

Hypotheses 1a-b: Both work (a) task and (b) relationship adjustment will be positively correlated with, yet distinct from, work role performance.

Hypotheses 1c-d: Both family (c) task and (d) relationship adjustment will be positively correlated with, yet distinct from, family role performance.

Hypotheses 2a-b: Both work (a) task and (b) relationship adjustment will be positively correlated with, yet distinct from, work role engagement.

Hypotheses 2c-d: Both family (c) task and (d) relationship adjustment will be positively correlated with, yet distinct from, family role engagement.

There is ample evidence in the literature that the work and family domains are not always separate and that emotions, attitudes, and experiences spill over from one domain to the other (e.g., Westman, 2001). With regard to expatriates, research suggests that demands from the home domain may spill over to negatively affect the work domain (Van der Zee, Ali, & Salomé, 2005). In addition, Lazarova et al. (2010) suggest that work role adjustment could spill over and affect family role adjustment and vice versa.

Hypotheses 3a-b: Work task adjustment will be positively correlated with family (a) task and (b) relationship adjustment.

Hypotheses 3c-d: Work relationship adjustment will be positively correlated with family (a) task and (b) relationship adjustment.

Methods

Data collection and sample. Participants for this study were expatriate employees in a large Israeli software development organization. Online surveys were sent to 1,200 CEs, of which we received 209 completed surveys. However, due to missing observations the final sample consisted of 200 expatriates. For their participation, respondents were entered in a lucky draw to win a US\$100 gift card. Demographic information is presented in Table 1.

Measures. *Work and family task and relationship adjustment* were measured using the scale developed in Study 1. The internal reliabilities for the subscales are .78 (work task), .82 (work relationship), .88 (family task), and .89 (family relationship), respectively.

Work-role performance was adapted from scales developed by Caligiuri (1997) and Welbourne et al. (1998). This is a two-dimensional scale (i.e., work task performance and work contextual performance). A sample item from the work task performance dimension (6 items) is “Quality of work output” and a sample item from work contextual performance (8 items) is “My effectiveness at maintaining good working relationships with host nationals.” The measure is assessed on a 5-point scale (1 = need much improvement to 5 = excellent) and the internal consistency reliabilities for work task performance and work contextual performance are .88 and .89, respectively.

To assess *family-role performance* we used a scale developed by Chen and colleagues (2014). The scale consists of two dimensions (i.e., family task performance and family relationship performance), each assessed with four items. An example of family task performance is “Do household chores” and a sample item for family relationship performance is “Provide emotional support to your family members”. All items were measured on a 5-point Likert scale (1 = do not fulfill expectations to 5 = fulfill expectations completely). Reliabilities for family task performance and family relationship performance are .94 and .92, respectively.

Work-role engagement was assessed using Rothbard’s (2001) 9-item, two-dimensional scale. A sample item from the attention dimension is “I spend a lot of time thinking about my work” and an

example item from the absorption dimension is “I often get carried away by what I am working on”. The items were measured on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The scale reliabilities are .90 (i.e., attention) and .82 (i.e., absorption).

Family-role engagement was modified from Rothbard’s (2001) work-role engagement scale. A sample question is “I concentrate a lot on my family” (i.e., attention) and a sample question from the absorption dimension is “I often get carried away when I am with my family”. All nine items were measured on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The internal consistency reliabilities were .91 for the attention dimension and .92 for the absorption dimension.

Results

We again conducted CFA to provide further evidence for the higher-order factor structure of the work and family role adjustment scale, and assessed it not only with a sample of IBTs but also with a sample comprising global professionals who relocate to a foreign country. The higher-order model had an acceptable fit (CFI = .96; RMSEA = .08; SRMR = .08) with chi-square of 125.54 and 49 degrees of freedom. All factor loadings were above the .40 threshold (Nunnally, 1978). Table 3 presents means, standard deviations, correlations, and reliabilities of the study variables. To assess convergent validity, we examined the correlations between the proposed variables. For discriminant validity, we conducted CFA and Fornell and Larcker’s (1981) test.

Table 3 goes about here

To test the convergent validity proposed in Hypotheses 1a-d, we looked at whether task and relationship work and family role adjustment are related to work and family role performance. Work task adjustment was significantly correlated with both the task and contextual dimensions of work role performance ($r = .34; p < .001$; $r = .30; p < .001$; respectively). Work relationship adjustment was significantly correlated with both dimensions of work role performance (i.e., task performance, $r = .27; p < .001$; contextual performance, $r = .39; p < .001$). Family task adjustment was significantly related to

both dimensions of family role performance (i.e., task performance, $r = .40$; $p < .001$; relationship performance, $r = .53$; $p < .001$), as was family relationship adjustment (i.e., task performance, $r = .29$; $p < .001$; relationship performance, $r = .59$; $p < .001$). Thus, in regard to convergent validity, Hypotheses 1a-d are all supported.

According to Hypotheses 2a-d, task and relationship work and family role adjustment will be positively correlated with work and family role engagement, respectively. We found that work task adjustment was not significantly correlated with the attention ($r = .11$; $p > .05$) or absorption ($r = .04$; $p > .05$) dimension of work engagement; work relationship adjustment was significantly related to the absorption dimension of work engagement ($r = .17$; $p < .05$) but not to the attention dimension ($r = .11$; $p > .05$). In contrast, family task and relationship adjustment were significantly associated with both dimensions of family engagement (i.e., for task adjustment: attention, $r = .39$; $p < .001$; absorption, $r = .20$; $p < .01$; for relationship adjustment: attention, $r = .48$; $p < .001$; absorption, $r = .23$; $p < .01$). Thus, in terms of convergent validity Hypotheses 2c-d are supported, Hypothesis 2a is not, and we have partial support for Hypothesis 2b.

To assess the discriminant validity proposed in Hypotheses 1 and 2, we entered each pair of significantly correlated constructs above into a CFA. We tested whether the fit improves when the variance between the pair of latent constructs is constrained to 1. If the chi-square for this model is significantly worse than for the unconstrained model, we would have some evidence that the constructs are distinct and that there is discriminant validity (e.g., Ferris, Brown, Berry, & Lian, 2008). Results show that in relation to all components of work and family role adjustment a two-factor model provided a better fit than a model where the variance between our measure and another construct was constrained to 1.ⁱ Thus, we have evidence for discriminant validity, confirming Hypotheses 1a-d and 2b-d.

We also used Fornell and Larcker's (1981) test to provide further evidence for the divergence of work and family role adjustment from other constructs. According to this method, two constructs will be different when the average squared factor loading of each latent construct (i.e., average variance extracted) is higher than the squared correlation between the two constructs. Our results show that this is

in fact the case for all construct pairs that were significantly correlated in the above analyses.ⁱⁱ These results provide additional support for Hypotheses 1a-d and 2b-d.

Hypotheses 3a-d proposed that work role adjustment and family role adjustment are positively correlated. As shown in Table 3, work role task adjustment was significantly correlated with both components of family role adjustment (task, $r = .36$; $p < .001$; relationship, $r = .27$; $p < .001$) and work role relationship adjustment was significantly correlated with family role relationship adjustment ($r = .22$; $p < .01$) and with family role task adjustment ($r = .15$; $p < .05$). Thus, Hypotheses 3a-d are supported.

Although our CFA in Study 1 and the convergent and discriminant validity tests in Study 2 support the four-factor structure, we opt to focus on the higher order two-factor subclass (work and family role adjustment) for the remainder of our validation studies. This decision is based on the high correlation between family task and relationship adjustment (see Table 3) and on the fact that the task and relationship dimensions of each adjustment domain exhibit very similar correlation patterns with other variables. Further, the four-factor approach may introduce unnecessary complexity. The scales still contain both task and relationship items and if researchers want to use these separately to try to tease out their different antecedents and outcomes, then it is possible to do so.

STUDY 3: LEVELS OF ADJUSTMENT ACROSS TYPES OF GLOBAL PROFESSIONALS

In this study, we examine differences in the levels of work and family role adjustment across four types of global professionals: CEs, GDs, IBTs, and SIEs Based on Shaffer and colleagues' (2012) taxonomy of global work experiences, as well as the limited empirical evidence for differences in adjustment between types of global professionals, we anticipate that differences inherent in the role requirements of various types of global professionals will result in differences in the levels of work and family role adjustment. According to Shaffer and colleagues (2012), global work differs along three dimensions: (1) *physical mobility* is the degree to which the work role requires international travel or relocation, (2) *cognitive flexibility* is the degree to which global professionals need to adjust their thoughts

and cognitive scripts to adapt to demands and interact with people across cultures, and (3) *non-work disruption* is the degree to which work requirements interfere with employees' life outside of work.

With respect to work role adjustment, we expect that GDs, whose jobs are characterized as having minimal demands of physical mobility, cognitive flexibility, and non-work disruption, will have higher levels of adjustment than other types of global professionals. Differences among other forms of global professionals are more tenuous, however. Based on Shaffer et al.'s (2012) taxonomy, CEs and SIEs have work roles that are equally demanding across all dimensions. Studies comparing these two types of expatriates also indicate that they do not differ in levels of work adjustment (Froese & Peltokorpi, 2013; Peltokorpi & Froese, 2009). Although Shaffer et al.'s (2012) taxonomy indicates that IBTs' jobs require relatively less cognitive flexibility than expatriate work, the demands of high travel intensity can be detrimental to successful adjustment due to often increased stress, work backlog at the home office, and insufficient recovery times (Welch et al., 2007; Welch & Worm, 2006). Furthermore, IBTs are required to perform well in both domestic and international contexts and the tensions between the two can create role conflict, which may lead to poorer work adjustment (Welch et al., 2007).

While adjustment to the redefined family role can be a challenge for all global professionals, we contend that it will be less so for GDs than for other types of professionals. According to Shaffer et al.'s (2012) taxonomy, global domestic jobs, which are characterized by relatively lower levels of non-work disruptions, require only minimal and insignificant changes to their family roles. However, being an expatriate (either CE or SIE) results in moderate levels of non-work disruptions (Shaffer et al., 2012); nuclear family members usually accompany expatriates, but they are still distanced from extended family and friends and they also need to adjust to family life in a foreign country. Although Shaffer and colleagues (2012) do not differentiate between CEs and SIEs in their taxonomy, they do suggest that families of CEs may have a harder time adjusting, which can make adjustment to the family role problematic for CEs. Other research on the differences between these two types of expatriates also points to the possibility that SIEs may be able to achieve higher levels of family role adjustment on average compared to CEs because they may be more motivated to succeed (Suutari & Brewster, 2000) or to stay

permanently in the foreign country (Al Ariss & Özbilgin, 2010; Suutari & Brewster, 2000). In contrast with expatriates, we expect IBTs to experience moderately high levels of non-work disruptions; because of frequent travels, IBTs often have a hard time maintaining stable relations with their family (Shaffer et al., 2012). The erratic travel schedule combined with the negative health effects from traveling can further disrupt family life (Welch & Worm, 2006), making adjustment to the redefined family role difficult.

Based on the above arguments, we expect that GDs will be better adjusted to their work and family roles than other types of global professionals. Although we do not anticipate differences in work role adjustment among the other forms of professionals, we do expect that they will differ in terms of family role adjustment. Specifically, we propose that SIEs will have higher levels of family role adjustment than CEs, and that both CEs and SIEs will be better adjusted to their family roles than IBTs. Recognizing that the Shaffer et al. (2012) taxonomy has not been empirically assessed, these predictions are somewhat tenuous; therefore, we test for differences among all types of global professionals.

Hypothesis 1a-c: GDs will have higher work role adjustment levels compared to (a) CEs, (b) SIEs, and (c) IBTs.

Hypothesis 2a-c: GDs will have higher family role adjustment levels compared to (a) CEs, (b) SIEs, and (c) IBTs.

Hypothesis 3a-b: SIEs will have higher family role adjustment levels compared to (a) CEs and (b) IBTs.

Hypothesis 4: CEs will have higher family role adjustment levels compared to IBTs.

Methods

Data collection and sample. The IBT sample used in this study is the second sample from Study 1 (n= 246) and the CE sample is from Study 2 (n=205). (Actual sample sizes may differ between studies due to listwise deletion of missing observations. Since different variables are used across studies, missing observations vary.) In addition, we collected data from SIEs by sending online surveys to members of a large French expatriate organization. This survey was in French.ⁱⁱⁱ Respondents were given a list of

different types of global professionals (including definitions) and asked to indicate the one that best described them. Of the approximately 2,000 surveys distributed to the expatriate organization, 171 completed surveys were received from SIEs. After observations with missing data were eliminated, the final sample size was 165. Participants worked in a variety of industries including services, information technology, finance, retail, and others. For GDs we used an online data collection panel provided by Qualtrics to collect data from 200 domestic employees, from a variety of industries, who indicated that they have global work responsibilities. In exchange for their participation, respondents were given reward points that they could redeem for merchandise. Demographic information for the SIEs and GDs samples is presented in Table 1.

Measures. Using the same scales as in previous studies, we assessed *work* ($\alpha = .79$, GDs; $\alpha = .88$, IBTs; $\alpha = .83$, CEs; $\alpha = .83$, SIEs) and *family* ($\alpha = .90$, GDs; $\alpha = .93$, IBTs; $\alpha = .90$, CEs; $\alpha = .88$, SIEs) *role adjustment*. We controlled for *gender* (0 = male, 1 = female) and *marital status* (0 = single; 1 = married or in a committed relationship).

Results

We conducted two additional CFAs to provide evidence for the higher-order factor structure of the work and family role adjustment scale within the new global professional samples of GDs and SIEs. For GDs, the higher-order model had an acceptable fit (CFI = .96; RMSEA = .08; SRMR = .07) with chi-square of 124.30 and 49 degrees of freedom. For SIEs, the higher-order model fit the data well (CFI = .97; RMSEA = .07; SRMR = .06) with chi-square of 94.90 and 49 degrees of freedom.

To assess mean differences, we conducted one-way analyses of covariance (ANCOVA) of work and family role adjustment across the four types of global professionals with gender and marital status as controls. Mean work role adjustment levels did not differ significantly across types of global professionals ($F(3, 810) = 1.85, p > .05$). Thus Hypothesis 1, which proposed that GDs would have higher work role adjustment levels compared to the other three types of global work, was not supported. However, we did find significant mean differences in family role adjustment levels across the four types

of global professionals ($F(3, 810) = 15.27, p < .001$). To test specific differences across types, we conducted planned contrasts. Results revealed that GDs ($M = 3.96, SD = .70$) had a significantly higher level of family role adjustment compared to CEs ($M = 3.52, SD = .87, t(810) = 18.39, p < .001$) but not compared to SIEs ($M = 3.76, SD = .79, t(810) = 2.61, p > .05$) and IBTs ($M = 3.98, SD = .83, t(810) = 1.13, p > .05$). Thus Hypothesis 2a is supported, but not 2b-c. In support of Hypothesis 3a, SIEs had significantly higher levels of family role adjustment compared to CEs ($t(810) = 6.64, p < .05$). However, IBTs had a significantly higher level of family role adjustment than either CEs ($t(810) = 31.34, p < .001$) or SIEs ($t(810) = 7.20, p < .01$). Thus Hypotheses 3b and 4 are not supported.

The results of this study, especially the findings for family role adjustment, provide strong support for a more nuanced, role-based conceptualization of the work and family role adjustment of global professionals. Next, we consider differences in the patterns of relationships proposed in the nomological network of demands and resources associated with work and family role adjustment.

STUDY 4: NOMOLOGICAL NETWORK

In this study, we test a nomological network of work and family role adjustment in the context of CEs and SIEs. We draw on the conceptual model developed by Lazarova et al. (2010), which was primarily grounded in the Job Demands-Resources (JD-R) model. Specifically, we propose a nomological network involving work and family demands and work, family, and personal resources. Also, in line with the larger objective of our research, we examine how the nomological network of work and family role adjustment may differ for CEs and SIEs. While we posit that the direction of the relationships between the proposed antecedents and adjustment will not differ across the two groups, we do anticipate differences in the strength of these relationships.

Direct Effects of Demands and Resources on Work and Family Role Adjustment

The JD-R model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) has been used in the expatriate literature to facilitate understanding of how demands (i.e., negative aspects of the expatriate experience that tax individuals) and resources (i.e., positive aspects of the expatriate experience that

facilitate the achievement of goals) affect expatriates during their foreign experience (Lazarova et al., 2010). Demands are most often associated with contributing to burnout and exhaustion (Bakker, Demerouti, & Euwema, 2005) through an energy-depleting process. In the case of expatriates, excessive demands are likely to inhibit the adjustment process (Shaffer et al., 1999) by creating too many barriers to achieving a comfortable expatriate experience. Thus, excessive demands should be detrimental to expatriates' adjustment to their work and family roles.

In this study, we consider two work and family demands: role overload and emotional demands. Role overload occurs when individuals feel that the tasks and responsibilities that are expected of them in their work and family roles exceed the resources they have available to cope with these stressors (Kahn et al., 1964). Therefore, in the case of high role overload, expatriates may perceive their foreign experience to be too difficult to manage and thus become unable to successfully adjust to their redefined work and family roles. Emotional demands, such as exposure to complaints and intimidation, reflect the degree to which employees are confronted with emotionally demanding situations at work or at home (Bakker et al., 2005). The higher the emotional demands, the more expatriates will feel uncomfortable with their in-role responsibilities or unable to successfully navigate relationships within their work and family roles.

Hypotheses 1a-b: The work demands of (a) role overload and (b) emotional demands will be negatively related to work role adjustment.

Hypotheses 2a-b: The family demands of (a) role overload and (b) emotional demands will be negatively related to family role adjustment.

In contrast to the detrimental role of demands, resources are more likely to foster within-role adjustment (Lazarova et al., 2010). When expatriates have resources available to them they may feel more motivated and capable during their foreign experience, and thus be better able to achieve their goals within their work and family roles and reach a higher level of adjustment. Resources have been shown to be a strong contributing factor to positive experiences within the work and family domains (Greenhaus & Powell, 2006), facilitating successful role transitions (Doehrman, 1984) and achieving expatriate adjustment (e.g., Shaffer et al., 1999).

To assess how our measure of work and family role adjustment relates to resources, we focus on two work and family resources, instrumental and emotional social support at work and at home, and one personal resource, self-efficacy. Instrumental support entails engaging in behaviors that provide tangible help to another person (House, 1981). Emotional support is defined as being able to discuss emotions and feelings with others, as well as talk about personal situations (House, 1981). Both instrumental and emotional support will aid expatriates in having better interactions with colleagues or family members and in receiving help for completing their role responsibilities. Thus, we propose that within-domain support (i.e., work and family) will foster greater work and family role adjustment. Personal resources that are not necessarily domain specific could also enhance work and family role adjustment (Lazarova et al., 2010). An important personal resource is self-efficacy, which concerns individuals' judgments of their capabilities to organize and execute actions needed to achieve desired outcomes (Bandura, 1986). Specifically, self-efficacy is not concerned with an individual's skills *per se* but rather with a belief in whether the individual can use the skills he or she possesses. Thus, self-efficacy provides the motivation and the confidence individuals need to succeed in a task or relationship context (Gist & Mitchell, 1992). Therefore, expatriates high on self-efficacy will be better equipped to successfully manage all aspects of adjusting to their work and family roles. In view of the above, we propose the following.

Hypotheses 3a-b: Work (a) instrumental and (b) emotional support will be positively related to work role adjustment.

Hypotheses 4a-b: Family (a) instrumental and (b) emotional support will be positively related to family role adjustment.

Hypotheses 5a-b: Self-efficacy will be positively related to (a) work and (b) family role adjustment.

Differences in Nomological Relationships between Types of Expatriates

While there is little to suggest that demands and resources will have a fundamentally different impact on role adjustment, the strength of each relationship may differ between expatriate groups.

Specifically, we posit that work and family demands will have a stronger influence on the role adjustment of SIEs and work and family resources will have a stronger influence on the role adjustment of CEs. We have no reason to believe that the effect of the personal resource of self-efficacy on work and family role adjustment will differ between CEs and SIEs.

SIEs often face formidable demands because they are responsible both for finding appropriate employment and for helping their family settle in their host country (Shaffer et al., 2012). Unlike CEs, who move within their own organizations, and generally take similar job roles, SIEs' new jobs are in new organizations and new roles. Research has also suggested that SIEs may be underemployed and often have less favorable work contracts than expatriates (Andresen, Bergdolt, Margenfeld, & Dickmann, 2014), suggesting that their jobs may be characterized by lower role discretion than CE jobs. Based on identity and role transition theories, SIEs thus face more uncertainty and greater role ambiguity and role overload (Ashforth, 2001; Bauer et al., 2007; Nicholson, 1984), which likely contribute to their role adjustment challenges. Additionally, SIEs receive fewer organizational resources compared to CEs. According to the JD-R model, the lack of extensive resources will likely strengthen the relationship between demands and role adjustment (Bakker et al., 2005).

From a scarcity perspective (Lobel & St. Clair, 1992), given the increased pressure at work, SIEs are likely to devote more time and energy to their new work role, and thus will have less to devote to their family role. Tensions will rise if expatriates are committed to both their family and work roles but are forced to choose investing more in one over the other (Sieber, 1974). Additionally, given that SIEs have initiated the international move, they may feel increased responsibility and extra emotional burden for the well-being of their family. In this context, any demands stemming from the family role may have an intensified effect on the family role adjustment of SIEs.

In contrast with demands, we contend that resources will exhibit stronger relationships with CEs' work and family role adjustment. This is due to the personal agency that underlies the SIE experience. SIEs decide the location of their assignment, presumably after getting their family members on board with this decision. They follow an individualized career path and move to accomplish their own objectives,

whereas, more often than not, CEs move to accomplish organizational objectives (Baruch, Dickmann, Altman, & Bournois, 2013). Compared to CEs, SIEs take more personal responsibility towards developing their own careers, actively define success and make efforts to achieve it on their own terms (Doherty, 2013). SIEs take ownership of their decision to move and as such they are more reliant on themselves.

Instead of expecting that help be provided, SIEs proactively seek it. For example, there is evidence that SIEs begin to build their networks in the host country even before they move (Baruch et al., 2013) and tend to develop larger social networks after arrival (Tharenou, 2013). In a recent study, von Borell de Araujo and colleagues (2014) compared SIEs and CEs in Brazil and suggested that SIEs and CEs take different approaches and use different tactics to adjust, with SIEs relying more on local norms compared to CEs. SIEs were more accepting of the local business environment and more willing to emulate local behaviors. The study also suggested that CEs resolve the challenges they encounter with the help of organizational support they receive, whereas SIEs tend to rely on the supportive relationships they have cultivated with HCNs. CEs frequently prefer to isolate themselves from locals (and therefore, have a more confined experience, limited to work and family), whereas SIEs rely on skills that allow them to filter the aspects of the environment they find unappealing and to utilize local norms to their advantage.

Although most research has focused on the work experiences of SIEs, similar logic can be extended to resources from the family domain. The emotional and instrumental support of families of SIEs is of course important for SIEs' family role adjustment, but it is more important in the case of CEs. On average, CEs are likely to have relatively lower embeddedness in the local community, and are thus more dependent on their family members. We therefore propose:

Hypothesis 6: The relationships between work and family demands and work and family adjustment, respectively, will be stronger for SIEs than for CEs.

Hypothesis 7: The relationships between work and family resources and work and family adjustment, respectively, will be stronger for CEs than for SIEs.

Methods

Data collection and sample. We test the proposed nomological network in a sample comprising SIEs and CEs. The SIEs included here represent the sample of SIEs from Study 3. CEs were recruited from a large Spanish multinational energy company. We sent online surveys to participants who were on an international relocation at the time of data collection. Respondents were provided with a list and definitions of the different types of global professionals and asked to indicate which best described their current position. The participants had the option to choose between completing the survey in English or Spanish. For the purposes of this study, we used only the respondents who chose to complete the questionnaire in English. Of the approximately 400 surveys distributed, we received a total of 132 completed surveys from CEs who answered the survey in English. After observations with missing data were eliminated, the final sample size was 119. For their participation respondents were entered in a lucky draw for a chance to win a US\$100 gift card. Demographic information for the CEs sample is presented in Table 1.

Measures. We used our developed scale to assess *work role adjustment* ($\alpha = .81$) and *family role adjustment* ($\alpha = .88$).

Work role overload was measured with a scale from Bolino and Turnley (2005) and *family role overload* with a scale from ten Brummelhuis, ter Hoeven, de Jong, and Peper (2013). Work role overload consisted of three items (1 = strongly disagree to 7 = strongly agree). A sample question is “It often seems like I have too much work for one person to do”. Reliability for work role overload was .82. Family role overload had five items (1 = never to 5 = always) and a sample question is “I find that I am too busy at home”. Reliability for family role overload was .85.

Work emotional demands (Van Veldhoven & Meijman, 1994) was measured with four items (1 = never to 5 = always) and *family emotional demands* (ten Brummelhuis, 2014) with five items (1 = never to 5 = always). A sample item from work emotional demands is “My work puts me in emotionally upsetting situations” and a sample item from family emotional demands is “Conflicts occur at my home”.

One work emotional demand item was removed to increase reliability. Internal consistency reliabilities for work emotional demands and family emotional demands were .74 and .86, respectively.

We adapted *work instrumental and emotional support* to fit the work role from the items used to assess *family instrumental and emotional support* (Chen et al., 2014). Each of the measures consisted of six items (1 = never to 5 = always). Sample items are “Members of my work cooperate with me to get things done” (i.e., work instrumental support; $\alpha = .91$), “I can count on my family members to get everything done at home” (i.e., family instrumental support; $\alpha = .95$), “My colleagues at work ask me regularly how I am feeling” (i.e., work emotional support; $\alpha = .91$), and “I can discuss problems with my family members” (i.e., family emotional support; $\alpha = .94$).

To measure *self-efficacy*, we used Chen, Gully, and Eden’s (2001) eight-item measure. This was a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) and a sample item is “I will be able to successfully overcome many challenges”. The reliability of this scale was .92.

We controlled for the number of family members accompanying the expatriate (*accompanying family members*). This is a composite measure comprising the spouse and number of children on the assignment (0 = single employee to 5 = spouse and 4 children). We also controlled for *gender* (0 = male, 1 = female) and *type of expatriate* (0 = SIEs, 1 = CEs). (This control variable was included only when the combined model across both types of expatriates was tested.) Finally, we controlled for *cultural adjustment*, with an adapted scale based on Black and Stephens’ (1989) general adjustment scale. To better capture the living conditions to which global employees are exposed, we deleted the general question about living conditions and added two items about (1) crime and safety, and (2) environmental pollution. Thus, we used eight items, measured on a 5-point Likert scale (1 = not at all to 5 = to a great extent). A sample item is “Opportunities for leisure activities”. Internal consistency reliability was .89.

Results

Before testing our hypotheses, we assessed both measurement invariance and common method bias. Since we seek to make meaningful group comparisons across SIEs (French language sample) and

CEs (English language sample) we conducted tests to check for measurement invariance across the two samples. Due to the fairly small sample sizes, the tests of invariance were carried out separately for each latent variable included in the proposed model. In order to be able to compare relationships within the proposed nomological framework across the two groups we needed to demonstrate that the measures have factorial invariance (i.e., invariance of loadings). Measures demonstrated acceptable evidence of factorial invariance across the two groups with CFI indices of at least .918. As a preliminary test for the potential of common method bias, we followed Lindell and Whitney (2001) to introduce a marker variable. A marker should be measured by the same instrument as the scales used in the analysis and should be theoretically unrelated to the substantive variables in the study. We selected the marker “degree of identification with your country of birth” (1 = not at all to 7 = entirely). Because we did not use this variable in our analyses, we did not expect it to have a theoretical relationship with other substantive variables, and its measurement was the same as most of the other variables. An inspection of the partial correlations between all perceptual variables, controlling for degree of identification with country of birth, showed that all significant correlations in Table 4 remained significant. This provides confidence that common method bias is not an important issue in this study.

Means, standard deviations, correlations, and internal reliabilities for the combined sample are presented in Table 4; this information is provided for each of the SIE and CE samples in Table 5.

Tables 4 and 5 go about here

We used structural equation modeling (SEM) to test our proposed model and to conduct multigroup analysis in order to assess group differences between SIEs and CEs (see Figure 2). We created two parcels (i.e., task and relationship) each for work role adjustment and family role adjustment. For the rest of the measures we utilized a “partially latent” approach, using composite scale scores instead of the separate item scores. With this method the error variance for each single indicator variable is set to the variance*(1-alpha) (Kline, 2005).

First we tested our proposed nomological network on the combined sample of SIEs and CEs. The model demonstrated an acceptable fit to the data (CFI = .94; RMSEA = .09; SRMR = .05) with a chi-square of 111.30 and 36 degrees of freedom. The path coefficients for the proposed relationships are presented in Figure 2.

Figure 2 goes about here

Hypotheses 1 and 2 predicted that work and family demands (overload and emotional demands) would be negatively related to work and family role adjustment, respectively. We found no support for the relationships of work and family role overload to work and family role adjustment. However, work and family emotional demands had a significant and negative relationship with work ($b = -.13; p < .05$) and family ($b = -.34; p < .001$) role adjustment. Therefore, Hypotheses 1b and 2b are supported, but Hypotheses 1a and 2a are not.

Hypotheses 3 and 4 predicted that work and family instrumental and emotional support would have a positive relationship with work and family role adjustment, respectively. Work instrumental support was significantly and positively related to work role adjustment ($b = .17; p < .001$), however, work emotional support was not. Family instrumental support was also significantly and positively related to family role adjustment ($b = .15; p < .01$) as was family emotional support ($b = .13; p < .05$). Therefore, Hypotheses 3a and 4a-b are supported, but Hypothesis 3b is not.

In Hypothesis 5, we predicted that self-efficacy would contribute positively to work and family role adjustment. Self-efficacy had a significant and positive relationship with work role adjustment ($b = .23; p < .001$) but not with family role adjustment. Therefore, Hypothesis 5a is supported, but Hypothesis 5b is not.

Next we conducted multigroup SEM analysis to test for differences between SIEs and CEs in relation to the proposed nomological network. We first tested a model where all structural paths, with the exception of controls, were constrained to be equal across the two groups. This model demonstrated an acceptable fit to the data (CFI = .93; RMSEA = .08) with a chi-square of 161.92 and 80 degrees of

freedom. We then compared this model to one where all structural paths were freely estimated within the groups of SIEs and CEs. The latter model fit the data significantly better ($\Delta\chi^2 = 34.32 < .05$, $\Delta df = 12$; CFI = .95; RMSEA = .08), suggesting that the relationships in the proposed nomological network may vary across SIEs and CEs. To assess whether specific path relationships are significantly different across the two groups, we compared a SEM model where only the structural path was allowed to vary across types of expatriates to the model where all structural paths of interest were constrained. If the model fit did not improve significantly with the release of the path, there was no significant difference between SIEs and CEs.

We found several significant differences between SIEs and CEs (see Figure 2). Family emotional demands had a significant and negative relationship with family role adjustment ($b = -.47$; $p < .001$) for SIEs but not for CEs ($\Delta\chi^2 = 6.37 < .05$, $\Delta df = 1$). For SIEs, family instrumental support had a significant and positive relationship with family role adjustment ($b = .15$; $p < .05$) but this was not the case for CEs ($\Delta\chi^2 = 8.54 < .05$, $\Delta df = 1$). While the relationship between family emotional support and family role adjustment was not significant for SIEs, it was significant for CEs ($b = .26$; $p < .01$) ($\Delta\chi^2 = 12.36 < .05$, $\Delta df = 1$). These results provide partial support for Hypotheses 6 and 7. Although not hypothesized, the relationship between self-efficacy and family role adjustment was significant and positive for CEs ($b = .27$; $p < .05$), but not SIEs ($\Delta\chi^2 = 8.05 < .05$, $\Delta df = 1$).

STUDY 5: PREDICTIVE VALIDITY

To provide further evidence of validity, we examine whether our proposed measure of work and family role adjustment predicts global professionals' future work and family role performance. As described in Study 2, work and family role performance represent the degree to which individuals are successful within a given life role by effectively fulfilling responsibilities and expectations associated with the role (Chen et al., 2014; Welbourne et al., 1998). However, high levels of role performance cannot be achieved without first reaching a state of comfort within the role by adjusting to the responsibilities and relationships that define it. Lazarova and colleagues (2010) further proposed that for

global professionals in particular, attaining a level of adjustment within work and family roles is a necessary precursor to successful role performance. To test these ideas, we assess adjustment at Time 1 and performance at Time 2.

Hypotheses 1a-b: Work role adjustment at Time 1 will be positively related to (a) task and (b) contextual work role performance at Time 2.

Hypotheses 2a-b: Family role adjustment at Time 1 will be positively related to (a) task and (b) relationship family role performance at Time 2.

Methods

Data collection and sample. To gather two-wave data, we contacted the expatriates who provided data for Study 4. In addition, we collected data by sending online surveys to alumni of a large Spanish business school who had graduated in the last 35 years. Both SIEs and CEs participated; respondents self-reported the type of expatriate assignment. For their participation respondents were entered in a lucky draw with a chance to win a US\$100 gift card. Of the 2,056 surveys distributed to the business school alumni, 200 completed surveys were initially received. All participants who participated in the first wave and agreed to participate in the second wave received a second online survey after 3 months. We were able to match 157 completed surveys across the two time points. After deleting respondents who changed their employer during the 3-month period and eliminating missing observations, we were left with a sample size of $n = 136$ ($n = 68$ SIEs; $n = 68$ CEs). Respondents from a variety of industries, including finance, energy, information technology, services, and others were represented in the overall sample. Demographics are presented in Table 1.

Measures. The scales in this study are the same as reported in previous studies: *work* ($\alpha = .82$) and *family* ($\alpha = .85$) *role adjustment*, *work role performance* (task $\alpha = .86$; contextual $\alpha = .85$) and *family role performance* (task $\alpha = .92$; relationship $\alpha = .88$). We controlled for *cultural adjustment* ($\alpha = .87$), *accompanying family members*, *gender* (0 = male, 1 = female), and *type of expatriate* (0 = SIE; 1 = CE).

Results

Table 6 presents the means, standard deviations, correlations, and internal reliabilities. To assess predictive validity we used SEM and, as in Study 4, we created parcels to represent the task and relationship aspects of work and family role adjustment and used the “partially latent” approach for the rest of the variables. We allowed the disturbance terms of work task and contextual performance and family task and relationship performance to covary to account for the correlations among these performance dimensions. The model showed a good fit to the data (CFI = .98; RMSEA = .04; SRMR = .05) with chi-square of 32.38 and 25 degrees of freedom. The path coefficients for the proposed relationships are presented in Figure 3.

Table 6 and Figure 3 go about here

Hypotheses 1a-b suggested that work role adjustment at Time 1 would be positively related to work role performance at Time 2. The relationships between work role adjustment and both dimensions of work role performance were significant (i.e., task, $b = .66$; $p < .001$; contextual, $b = .60$; $p < .001$). Thus Hypotheses 1a-b are supported.

In Hypotheses 2a-b we proposed that family role adjustment at Time 1 would have a positive relationship to family role performance at Time 2. Family role adjustment positively related to both aspects of family role performance (i.e., task, $b = .25$; $p < .05$; relationship, $b = .44$; $p < .001$). Thus Hypotheses 2a-b are supported. Taken together, the above results provide strong evidence for the predictive validity of work and family role adjustment.

DISCUSSION

Since early expatriation research, adjustment has been assumed to be a critical psychological influence on performance. This is even more relevant today given the increased intensity and scope of global work (Hinds, Liu, & Lyon, 2011) and the growing number of individuals that are faced with adjustment challenges stemming from global work responsibilities (Brookfield Global Relocation Services, 2013). Following the conceptual argument that global professionals need to adjust to role

expectations both in the work and the family domains (Lazarova et al., 2010), we conducted five interlocking studies to clarify the content space of adjustment and validate a multi-dimensional measure of work and family role adjustment that is suitable for all global professionals. We also assessed differences in the degree (levels) and kind (patterns) of adjustment for different types of global professionals to demonstrate that adjustment is not necessarily the same for all global professionals.

Theoretical Contributions

Our research makes several contributions to the literature. First, consistent with the argument that individuals' behavioral work outcomes (Welbourne et al., 1998) and family outcomes (Chen et al., 2014) have both task-oriented and relationship components, we proposed and found evidence that affective responses to changes in work and family roles are also multi-dimensional. Our initial studies demonstrated that both work and family role adjustment of global professionals comprise a task and a relationship dimension, which has implications for adjustment research. For example, in Study 2 we showed that the affective concept of work and family adjustment is positively related, yet distinct from relevant motivational (e.g., work and family role engagement) and behavioral (e.g., work and family role performance) constructs. This provides further evidence for the notion that expatriate performance consists of a multi-stage process that includes but goes beyond adjustment (Lazarova et al., 2010). Given the high correlations between the task and relationship dimensions within domains, however, we focused on the higher order forms of work and family adjustment in the remaining validation studies, choosing parsimony over precision (Dragoni, Oh, Tesluk, Moore, VanKatwyk, & Hazucha, 2014).

Second, our assessment of differences in the levels of adjustment across four types of global professionals (GDs, CEs, SIEs, and IBTs) highlights the importance of considering domain-specific forms of adjustment. Although we did not find any differences in work role adjustment among the various types of global professionals, differences in family role adjustment were significant and complex. As expected, GDs had higher levels of family adjustment than either type of expatriate. However, contrary to our hypotheses, IBTs also had higher levels of family role adjustment than expatriates. Perhaps family role

adjustment is not as dramatic for IBTs since it is only the professional who is mobile; the family remains in a familiar routine so the disturbance to family life is not as extreme as for those whose families relocate with them (Welch & Worm, 2006). Also, there is some evidence that international trips are actually a form of respite for the traveler (Westman, Etzion, & Gattenio, 2008), thus shielding the employee from the negative consequences to the family and making their own family role adjustment easier.

Third, based on the JD-R model, our nomological network analysis (Study 4) revealed important similarities and differences in demand- and resource-related influences on work and family role adjustment between SIEs and CEs. Across both groups of global professionals, we found that resources, both instrumental and emotional support as well as self-efficacy, were important inputs to at least one form of adjustment. The effects of demands on adjustment, by contrast, were generally weaker. In particular, neither work nor family role overload significantly related to their respective form of role adjustment for either of the two groups of employees. This suggests that positive aspects of the expatriate experience may play a relatively stronger role in adjustment-related outcomes. In addition, for both groups, work instrumental support appeared more salient for work role adjustment than work emotional support. It is possible that in adjusting to their work roles global professionals derive their necessary emotional support from other sources, such as other local nationals, expatriates or the family.

As anticipated, SIEs and CEs differed with regard to the strength of several antecedents on work and family role adjustment. Specifically, although SIEs had relatively higher levels of family role adjustment, family demands and resources (in this case family emotional demands and family instrumental support) were more likely to affect their family role adjustment compared to CEs. SIEs' families may serve as a more salient source of instrumental support because they are more likely to be involved in the decision to relocate and hence motivated to make the necessary adjustments (Doherty, 2013). At the same time, having initiated the move abroad themselves, SIEs may also feel increased responsibility and emotional burden for the well-being of their family. In contrast, the influence of family emotional support on family adjustment was stronger for CEs than SIEs. This finding is consistent with our argument that CEs may be more dependent on family members than SIEs, who tend to develop

stronger social networks within the host community. Further, while self-efficacy was significantly positively related to both work and family role adjustment for CEs and neither of the relationships was supported in the case of SIEs, the difference between SIEs and CEs was only significant with respect to family adjustment. We may speculate that this is because SIEs decide themselves to relocate abroad and therefore, on average, have more similar beliefs in their capabilities to succeed in the foreign work and family role contexts. By contrast, CEs have relatively less control in the relocation decision, making self-efficacy a more salient personal resource in facilitating their work and family role adjustment.

Taken together, our findings from Studies 3 and 4 clearly demonstrate that role adjustment is different in both degree and kind across types of global professionals. This has implications for future theorizing and suitable sampling strategies in expatriate adjustment research. Given the differences in both levels of role adjustment and the strengths of relationships between role adjustment and its antecedents, it is important to conceptualize in greater depth how and why specific demands and resources, as well as additional antecedents, relate to role adjustment for each group of global professionals. Our results suggest that lumping together different types of global professionals may conceal important differences and even cancel out the effects of predictor variables.

Fourth, many studies have either implicitly or explicitly adopted a stress perspective in examining expatriate adjustment, thereby neglecting other potentially fruitful theoretical perspectives that could further the study of adjustment (Harrison et al., 2004). Consistent with Lazarova et al.'s (2010) conceptualization of expatriate adjustment, we build on role theory (Katz & Kahn, 1978) to theoretically distinguish between the bases of adjustment as rooted in different life domains or role sets that a global professional experiences. In doing so, we contribute to the literature on work role transitions more broadly. Specifically, despite early conceptual work on role transitions (Nicholson, 1984), and few initial applications in the international business literature (e.g., Black, 1988; Shay & Baack, 2004), relatively little research has examined in detail the conceptual bases of role adjustment from a role theory perspective. In addition, while most role adjustment research has been confined to organizational newcomers (e.g., Bauer et al., 2007), we argue that adjustment is an ongoing process that requires

employees to respond continually to changes in role content and environment, a notion that is of particular relevance for global professionals. Further, our conceptualization has the added advantage that it can be easily extended to other nonwork domains, such as leisure time, and equally applied to transitions that are not primarily cross-cultural in nature. We also envision that a more explicit integration of role theory with other related theories may help to conceptualize conditions under which spillover between work and family role adjustment (as demonstrated in Study 2) or other role domains is more or less likely to occur. For example, global professionals' relationship identification, understood as the extent to which they define themselves in terms of a role relationship (Sluss & Ashforth, 2007) not only at work but also at home, may provide a theoretical rationale for why spillover effects could be relatively stronger from one role-based adjustment to another.

Finally, by explicitly considering the expatriate's work and family domains, we address calls for moving beyond the global employee and his or her work context to include other stakeholders such as the family (Takeuchi, 2010). Given changes in family structures and systems, our consideration of both work and family role adjustment is relevant to work-family researchers as well. In this regard, we would encourage scholars to examine whether our distinction between family task and relationship adjustment also holds for the accompanying partner, especially in the case of dual-career couples.

Managerial Implications

Our research also entails practical implications. Further impetus to develop more far-reaching and appropriate support and training for both the global employee and his or her family comes from understanding that global professionals need to adjust not only to their new sociocultural environment but also to their redefined work and family roles. This understanding yields knowledge that should help managers and employees address some of the stress-related problems that stem from global employment experiences. We suggest that managers can assist global professionals and their families to adjust more effectively by helping them understand the needs and challenges associated with their new roles and supplying them with training and support. Support throughout the global employment experience is

crucial; it is not enough to offer this only at the outset or at the end of an assignment (Mezias & Scandura, 2005). Organizations may provide adjustment workshops for global professionals and their families. These workshops have two main aims: (1) to increase participants' awareness of the family challenges that are commonly experienced by global professionals and their partners and children, and (2) to help HR managers diagnose the adjustment process by using the new scale as a benchmark, comparing family adjustment across different kinds of global professionals.

Implicit to these arguments is also another important implication. There is increased recognition that organizational interventions should draw on theories. For example, Michie, Johnston, Francis, Hardeman, and Eccles (2008) have pointed out that the links between the theoretical and intervention research literatures are weak, advocating the use of theory in designing interventions. For example, theory-based interventions facilitate an understanding of what works and thus are a basis for developing better theory across different contexts, populations, and behaviors. This view further supports the use of our new, theoretically grounded scale.

Strengths, Limitations, and Future Research

Our research has several strengths that bolster confidence in the validity of our work and family role adjustment scale. By drawing on diverse samples that consisted of professionals on different global work assignments, representing different nationalities and different industries, we offer triangulated evidence of construct validity, making our measure applicable across groups of global professionals and helping scholars to better understand how these groups differ in their adjustment experiences. In contrast with Black and Stephens' (1989) measure of adjustment, we use the word "comfort" as a prompt, thereby capturing the affective quality of adjustment. We also provide evidence for predictive and cross-cultural validity of our developed measure, which is especially important since much of the early adjustment research was cross-sectional and primarily US-centric.

Nevertheless, as with all studies, ours has some limitations that can provide a basis for future research. A possible empirical limitation is that our data were self-reports. Although this data collection

approach can be very useful in assessing perceptions (e.g., work and family role adjustment) (Spector, 1994), there is a potential for common method bias. The preliminary test that was reported as part of Study 4 and the addition of longitudinal data in Study 5 limit the risk of common method bias; the existence of these effects, however, cannot be completely ruled out. Thus, we urge future researchers to also test our measure with a multisource sample of global professionals and their spouses.

There are also certain limitations concerning some of our samples. The response rates from the French expatriate organization in Studies 3 and 4 (SIEs) and the business school alumni for Study 5 were lower compared to the other data sources, most probably because the email databases on which the online surveys were based were not regularly updated. As some of our samples include predominant national groups, it is also possible that global professionals' culture of origin may have a bearing on our findings. Although we did establish measurement invariance across different cultural groups, it is advisable for the scale to be further tested with different cultural samples (e.g., Thomas et al., in press). In addition, we encourage researchers to examine diverse samples including migrants, entrepreneurs, and other forms of global professionals.

Recognizing the increasingly complex and diverse forms of today's families, our definition of family was intentionally broad and not limited to spouses or spouses with children. Instead, we allowed respondents to draw on their own definitions of family, an approach that is consistent with the vast majority of work-family research and with family science researchers (see Rothausen, 1999 for a review of family measures). This meant that our samples consisted of both married and single global professionals. Our more parsimonious approach has limitations in terms of precision and thus we cannot be sure exactly to whom the participants were referring when they responded to questions from the family adjustment dimension. To minimize the consequences of such decreased precision, in Study 3 we controlled for marital status and in Studies 4 and 5 we controlled for the number of nuclear family members (i.e., spouse and number of children) accompanying the expatriate. The inclusion of these control variables accounts for their potential influence on the findings.

Further, our focus on work and family roles is not intended to undermine the potential importance of cultural adjustment, which has been identified as a key element of the expatriate experience (Black & Stephens, 1989; Hippler et al., 2014; Ward & Kennedy, 1999). However, from a role theory perspective (Kahn et al., 1964; Katz & Kahn, 1978), we focus on work role adjustment and family role adjustment because adjustment to these two particular in-role environments may include but is not limited to cultural aspects. For example, the expatriate's adjustment to communication with his or her colleagues may entail cultural elements because communication styles differ across cultures (Hall, 1959). However, it also captures the adjustment challenges related to more general tasks and responsibilities of the new work role. To account for the relevance of cultural adjustment, we include it as a control variable in our nomological network and predictive validity analyses. Although researchers can use existing measures of cultural adjustment and our new work and family role adjustment scale in conjunction with each other, we encourage researchers to also develop items that specifically tap into aspects of cultural adjustment for both work and family role adjustment.

Finally, in our validation Studies 4 and 5 we considered the same antecedents (e.g., work and family overload, work and family instrumental support) and outcomes (e.g., work task and contextual performance) for the two types of role adjustment, as well as for both corporate and self-initiated expatriates. It would be fruitful for future research to identify additional distinct predictors, including both demands (e.g., role stressors) and resources (e.g., organizational support) for both forms of adjustment and for various global professional groups.

CONCLUSION

Adjusting to global work experiences entails achieving a certain level of comfort with the responsibilities and relationship interactions within new or redefined work and family roles. We believe our scale of work and family role adjustment will aid researchers in developing a more comprehensive view of role adjustment, where both the work and family domains are considered when examining the experiences of global professionals. For years organizations have been aware that families contribute to

the success of global professionals, yet this has not translated into adequate consideration of family factors and family support during global work assignments. We hope that our role adjustment scale provides the necessary impetus for designing more suitable interventions to assist all global professionals.

REFERENCES

- Al Ariss, A., & Özbilgin, M. 2010. Understanding self-initiated expatriates: Career experiences of Lebanese self-initiated expatriates in France. *Thunderbird International Business Review*, 52(4): 275-285.
- Andresen, M., Bergdolt, F., Margenfeld, J., & Dickmann, M. 2014. Addressing international mobility confusion – developing definitions and differentiations for self-initiated and assigned expatriates as well as migrants. *The International Journal of Human Resource Management*, 25(16): 2295-2318.
- Ashforth, B. E. 2001. *Role transitions in organizational life: An identity-based perspective*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. 2000. All in a day's work: Boundaries and micro role transitions. *Academy of Management Review*, 25(3): 472-491
- Aycan, Z. 1997. Expatriate adjustment as a multifaceted phenomenon: Individual and organizational level predictors. *The International Journal of Human Resource Management*, 8(4): 434-456.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. 2005. Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10(2): 170-180.
- Bandura, A. 1986. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Baruch, Y., Dickmann, M., Altman, Y., & Bournois, F. 2013. Exploring international work: Types and dimensions of global careers. *The International Journal of Human Resource Management*, 24(12): 2369-2393.
- Bauer, T.N., Bodner, T., Erdogan, B., Truxillo, D.M., & Tucker, J.S. 2007. Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92(3): 707-721.

- Bhaskar-Shrinivas, P., Harrison, D. A., Shaffer, M. A., & Luk, D. M. 2005. Input-based and time-based models of international adjustment: Meta-analytic evidence and theoretical extensions. *Academy of Management Journal*, 48(2): 257–281.
- Biddle, B. J. 1986. Recent development in role theory. *Annual Review of Sociology*, 12: 67-92.
- Black, J. S. 1988. Work role transitions: A study of American expatriate managers in Japan. *Journal of International Business Studies*, 19(2): 277-294.
- Black, J. S., & Gregersen, H. B. 1991a. Antecedents to cross-cultural adjustment for expatriates in Pacific Rim assignments. *Human Relations*, 44(5): 497-515.
- Black, J. S., & Gregersen, H. B. 1991b. The other half of the picture: Antecedents of spouse cross-cultural adjustment. *Journal of International Business Studies*, 22(3): 461–477.
- Black, J. S., & Stephens, G. K. 1989. The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignments. *Journal of Management*, 15(4): 529–544.
- Black, J. S., Mendenhall, M., & Oddou, G. 1991. Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review*, 16(2): 291-317.
- Bolino, M. C., & Turnley, W. H. 2005. The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology*, 90(4): 740-748.
- Brookfield Global Relocation Services. 2013. *Global relocation trends survey report*. Woodridge, IL.
- Caligiuri, P. M. 1997. Assessing expatriate success: Beyond just being there. In Z. Aycan (Ed.), *New approaches to employee management: Expatriate management theory and research*: 117-140. Greenwich, CT: JAI Press.
- Caligiuri, P. M., Hyland, M. A. M., Joshi, A., & Bross, A. S. 1998. Testing a theoretical model for examining the relationship between family adjustment and expatriates' work adjustment. *Journal of Applied Psychology*, 83(4): 598-614.

- Campbell, D.T., & Fiske, D.W. 1959. Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56(2): 81-105.
- Cerdin, J. L., & Selmer, J. 2014. Who is a self-initiated expatriate? Towards conceptual clarity of a common notion. *The International Journal of Human Resource Management*, 25(9): 1281-1301.
- Chen, F. F. 2007. Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, 14(3): 464-504.
- Chen, F. F., Sousa, K. H., & West, S. G. 2005. Teacher's corner: Testing measurement invariance of second-order factor models. *Structural Equation Modeling*, 12(3): 471-492.
- Chen, G., Gully, S. M., & Eden, D. 2001. Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1): 62-83.
- Chen, Y. P., Shaffer, M.A., Westman, M., Chen, S., Lazarova, M., & Reiche, S. 2014. Family role performance: Scale development and validation. *Applied Psychology: An International Review*, 63(1): 190-218.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. 2001. The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3): 499-512.
- DeVellis, R.F. 2012. *Scale development: Theory and applications*. Thousand Oaks, CA: Sage Publications, Inc.
- Doehrman, S.R. 1984. Stress, strain, and social support during a role transition. In V. L. Allen, & E. van de Vliert (Eds.). *Role transitions: Explorations and explanations*: 253-262. New York: Plenum Press.
- Doherty, N. 2013. Understanding the self-initiated expatriate: A review and directions for future research. *International Journal of Management Reviews*, 15(4): 447-469.
- Dragoni, L., Oh, I. S., Tesluk, P. E., Moore, O. A., VanKatwyk, P., & Hazucha, J. 2014. Developing leaders' strategic thinking through global work experience: The moderating role of cultural distance. *Journal of Applied Psychology*, 99(5): 867-882.

- Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. 2008. The development and validation of the workplace ostracism scale. *Journal of Applied Psychology*, 93(6): 1348-1366.
- Fornell, C., & Larcker, D. F. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39–50.
- Froese, F. J., & Peltokorpi, V. 2013. Organizational expatriates and self-initiated expatriates: Differences in cross-cultural adjustment and job satisfaction. *The International Journal of Human Resource Management*, 24(10): 1953-1967.
- Gist, M.E., & Mitchell, T.R. 1992. Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17(2): 183-211.
- Gorsuch, R. L. 1983. *Factor analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Greenhaus, J. H., & Powell, G. N. 2006. When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31(1): 72-92.
- Hall, E. 1959. *The silent language*. Garden City, NY: Doubleday.
- Harrison, D.A., Shaffer, M.A., & Bhaskar-Shrinivas, P. 2004. Going places: Roads more and less traveled in research on expatriate experiences. In J.J. Martocchio (Ed.), *Research in personnel and human resources management*: 199-247. Oxford: Elsevier.
- Haslberger, A., Brewster, C., & Hippler, T. 2013. The dimensions of expatriate adjustment. *Human Resource Management*, 52(3): 333-351.
- Hinds, P., Liu, L., & Lyon, J. 2011. Putting the global in global work: An intercultural lens on the practice of cross-national collaboration. *The Academy of Management Annals*, 5(1): 135-188.
- Hinkin, T. R. 1998. A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1): 104-121.
- Hippler, T., & Caligiuri, P.M. 2009. *Revisiting the construct of expatriate adjustment: Implications for theory and measurement*. Paper presented at the 2009 International Human Resource Management Conference, 21-24 June 2009, Santa Fe, NM.

- Hippler, T., Caligiuri, P. M., Johnson, J. E., & Baytalskaya, N. 2014. The development and validation of a theory-based expatriate adjustment scale. *The International Journal of Human Resource Management*, 25(14): 1938-1959.
- House, J.S. 1981. *Work stress and social support*. Reading, MA: Addison-Wesley.
- Huitt, W. 1999. Conation as an important factor of mind. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. <http://www.edpsycinteractive.org/topics/conation/conation.html>
Accessed August 13, 2014.
- 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: Jon Wiley & Sons, Inc.
- Kahn, W.A. 1990. Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4): 692-724.
- Katz, D., & Kahn, R.L. 1978. *The social psychology of organizations*. New York: Jon Wiley & Sons, Inc.
- Kline, R. B. 2005. *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Lazarova, M. B., & Thomas, D. C. 2012. Expatriate adjustment and performance revisited. In G. Stahl, I. Björkman & S. Morris (Eds.). *Handbook of research in international human resource management* (2nd ed.): 271-292. Cheltenham: Edward Elgar.
- Lazarova, M. B., Westman, M., & Shaffer, M.A. 2010. Elucidating the positive side of the work-family interface on international assignments: A model of expatriate work and family performance. *Academy of Management Review*, 35(1): 93-117.
- Lindell, M. K., & Whitney, D. J. 2001. Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1): 114-121.
- Lobel, S. A., & St. Clair, L. 1992. Effects of family responsibilities, gender, and career identity salience on performance outcomes. *Academy of Management Journal*, 35(5): 1057-1069.
- Mayerhofer, H., Hartmann, L. C., & Herbert, A. 2004. Career management issues for flexpatriate international staff. *Thunderbird International Business Review*, 46(6): 647-666.

- Mezias, J. M., & Scandura, T. A. 2005. A needs-driven approach to expatriate adjustment and career development: A multiple mentoring perspective. *Journal of International Business Studies*, 36(5): 519-538.
- Michie, S., Johnston, M., Francis, J., Hardeman, W., & Eccles, M. 2008. From theory to intervention: Mapping theoretically derived behavioral determinants to behavior change techniques. *Applied Psychology*, 57(4): 660-680
- Montes, S. D., & Zweig, D. 2009. Do promises matter? An exploration of the role of promises in psychological contract breach. *Journal of Applied Psychology*, 94(5): 1243-1260.
- Nicholson, N. 1984. A theory of work role transitions. *Administrative Science Quarterly*, 29(2): 172-191.
- Nunnally, J. C. 1978. *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Peltokorpi, V., & Froese, F. J. 2009. Organizational expatriates and self-initiated expatriates: Who adjusts better to work and life in Japan? *The International Journal of Human Resource Management*, 20(5): 1096-1112.
- Punnett, B.J. 1997. Towards effective management of expatriate spouses. *Journal of World Business*, 32(3): 243-257.
- Rothausen, T. J. 1999. 'Family' in organizational research: A review and comparison of definitions and measures. *Journal of Organizational Behavior*, 20(6): 817-836.
- Rothausen, T. J. 2011. Unpacking work–family: Core overarching but underidentified issues. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 4(3): 379-384.
- Rothbard, N.P. 2001. Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46(4): 655-684.
- Searle, W., & Ward, C. 1990. The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14(4): 449-464.
- Shaffer, M. A., & Harrison, D. A. 1998. Expatriates' psychological withdrawal from international assignments: Work, nonwork, and family influences. *Personnel Psychology*, 51(1): 87–118.

- Shaffer, M. A., & Harrison, D. A. 2001. Forgotten partners of international assignments: Development and test of a model of spouse adjustment. *Journal of Applied Psychology*, 86(2): 238-254.
- Shaffer, M. A., Harrison, D.A., & Gilley, K. M. 1999. Dimensions, determinants, and differences in the expatriate adjustment process. *Journal of International Business Studies*, 30(3): 557-581.
- Shaffer, M. A., Kraimer, M. L., Chen, Y. P., & Bolino, M. C. 2012. Choices, challenges, and career consequences of global work experiences a review and future agenda. *Journal of Management*, 38(4): 1282-1327.
- Shay, J. P., & Baack, S. A. 2004. Expatriate assignment, adjustment and effectiveness: An empirical examination of the big picture. *Journal of International Business Studies*, 35(3): 216-232.
- Sieber, S. D. 1974. Toward a theory of role accumulation. *American Sociological Review*, 39(4): 567-578.
- Sluss, D. M., & Ashforth, B. E. 2007. Relational identity and identification: Defining ourselves through work relationships. *Academy of Management Review*, 32(1): 9-32.
- Spector, P. E. 1994. Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior*, 15(5): 385-392.
- Suutari, V. & Brewster, C. 2000. Making their own way: International experience through self-initiated foreign assignments. *Journal of World Business*, 35(4): 417-436.
- Takeuchi, R. 2010. A critical review of expatriate adjustment research through a multiple stakeholder view: Progress, emerging trends, and prospects. *Journal of Management*. 36(4): 1040-1064.
- ten Brummelhuis, L. L. 2014. *Does family life impede or improve performance at work? Short-term and long-term effects of family demands and resources on work performance*. Paper presented at the 2014 Work and Family Researchers Network Conference, 19-21 June 2014, New York, NY.
- ten Brummelhuis, L. L., ter Hoeven, C. L., de Jong, M. D. T, & Peper, B. 2013. Exploring the linkage between the home domain and absence from work: Health, motivation, or both? *Journal of Organizational Behavior*, 34(3): 273-290.
- Tharenou, P. 2013. Self-initiated expatriates: an alternative to company-assigned expatriates? *Journal of Global Mobility*, 1(3): 336-356.

- Thomas, D. C., Liao, Y., Aycan, Z., Cerdin, J.-L., Pekerti, A. A., Ravlin, E. C., Stahl, G. K., Lazarova, M. B., Fock, H., Arli, D., Moeller, M., Okimoto, T. G., & van de Vijver, F. in press. Cultural intelligence: A theory-based, short form measure. *Journal of International Business Studies*. doi:10.1057/jibs.2014.67
- Van der Zee, K. I., Ali, A. J., & Salomé, E. 2005. Role interference and subjective well-being among expatriate families. *European Journal of Work and Organizational Psychology*, 14(3): 239-262.
- Van Veldhoven, M., & Meijman, T. 1994. *Het meten van Psychosociale arbeidsbelasting (The measurement of psychosocial job demands)*. Amsterdam: NIA.
- von Borell de Araujo, B. F., Teixeira, M. L. M., da Cruz, P. B., & Malini, E. 2014. Understanding the adaptation of organisational and self-initiated expatriates in the context of Brazilian culture. *The International Journal of Human Resource Management*, 25(18): 2489-2509.
- Ward, C., & Chang, W. C. 1997. "Cultural fit": A new perspective on personality and sojourner adjustment. *International Journal of Intercultural Relations*, 21(4): 525-533.
- Ward, C., & Kennedy, A. 1992. Locus of control, mood disturbance, and social difficulty during cross-cultural transitions. *International Journal of Intercultural Relations*, 16(2): 175-194.
- Ward, C., & Kennedy, A. 1999. The measurement of sociocultural adaptation. *International Journal of Intercultural Relations*, 23(4): 659-677.
- Welbourne, T. M., Johnson, D. E., & Erez, A. 1998. The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal*, 41(5): 540-555.
- Welch, D. E. & Worm, V. 2006. International business travelers: A challenge for IHRM. In G. K. Stahl & I. Björkman, (Eds.), *Handbook of research in international human resource management*: 283-301. Cheltenham, UK: Edward Elgar.
- Welch, D. E., Welch, L. S., & Worm, V. 2007. The international business traveller: A neglected but strategic human resource. *The International Journal of Human Resource Management*, 18(2): 173-183.
- Westman, M. 2001. Stress and strain crossover. *Human Relations*, 54(6): 717-751.

Westman, M., Etzion, D., & Gattenio, E. 2008. International business travels and the work-family interface: A longitudinal study. *Journal of Occupational and Organizational Psychology*, 81(3): 459-480.

TABLE 1

Sample Demographics across Studies

Sample/Study	Average Age	Gender	Marital Status	With Children	Position Level	Nationality
Study 1/IBTs (Sample 1)	37	66% male	75% married/in a committed relationship	72%	31% top-level management 51% mid-level management 9% low-level management 9% non-management	82% American 18% mix of 22 nationalities (e.g., Italy, Germany, Korea, Japan, China)
Studies 1 and 3/IBTs (Sample 2)	38	59% male	79% married/in a committed relationship	73%	36% top-level management 48% mid-level management 9% low-level management 7% non-management	88% American 12% mix of 20 nationalities
Studies 2 and 3/CEs	34	89% male	77% married/in a committed relationship	55%	4% top-level management 24% mid-level management 27% low-level management 45% non-management	57% Indian 16% Israeli 27% mix of 17 nationalities (e.g., Brazil, China, Ireland, Romania)
Studies 3 and 4/SIEs	46	62% male	79% married/in a committed relationship	62%	58% top-level management 24% mid-level management 6% low-level management 12% non-management	95% French 5% mix of nationalities (e.g., Cameroon, Australia, Lebanon, Syria)
Study 3/GDs	47	57% male	96% married/in a committed relationship	79%	N/A	100% American
Study 4/CEs	41	82% male	83% married/in a committed relationship	68%	9% top-level management 30% mid-level management 24% low-level management 37% non-management	43% Spanish 57% mix of 24 nationalities (e.g., Argentina, Brazil, Cuba, Denmark, Indonesia, Mexico)
Study 5/SIEs and CEs	43	82% male	81% married/in a committed relationship	64%	38% top-level management 32% mid-level management 13% low-level management 17% non-management	34% French 30% Spanish 36% mix of 21 nationalities (e.g., Argentina, Germany, India, USA)

TABLE 2

Factor Structure and Standardized Factor Loadings (Sample 1) (Study 1)

Items	Initial EFA			Final EFA	
	Work Role Adjustment	Family Role Adjustment	Third Factor	Work Role Adjustment	Family Role Adjustment
Work role task adjustment					
1. My specific job responsibilities	.74	.02	.16	.80	.00
2. My activities or tasks at work	.74	.00	.26	.77	.02
3. My work hours*	.65	-.02	.50		
4. My workload	.66	.09	.34	.67	.14
Work role relationship adjustment					
5. Communications among my colleagues (e.g., coworkers, direct reports)	.73	.08	.02	.75	.06
6. Collegiality among colleagues	.83	-.01	-.09	.81	-.04
7. Teamwork among my colleagues	.83	.00	-.11	.80	-.02
Family role task adjustment					
8. The amount of time I spend with family members	.01	.79	.14	.03	.81
9. The quality of time I spend with family members	-.05	.85	.15	-.02	.87
10. How we handle role responsibilities in our family*	.05	.75	.08		
11. My participation in family activities and tasks	-.04	.78	.12	-.02	.81
Family role relationship adjustment					
12. My relationship with my partner/family	.00	.83	.00	.02	.81
13. Communication among family members*	.13	.77	-.12		
14. How we make decisions as a family	.04	.84	-.07	.06	.80
15. How family members resolve conflict	.04	.82	-.08	.05	.79
16. How family members express affection with each other*	.02	.81	-.11		

* Items that were deleted after the scale purification.

Response prompts for work items: Please indicate the extent to which you feel comfortable with each aspect of your global employment.

Response prompt for family items: Please indicate the extent to which you feel comfortable with each aspect of your family life since you became a global employee.

Scale: 1 = not at all to 5 = to a great extent

TABLE 3Means, Standard Deviations, Internal Consistency Reliabilities, and Pearson Correlations (Study 2)^a

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Work task adjustment	4.05	0.74	(.78)											
2. Work relationship adjustment	4.09	0.67	.50	(.82)										
3. Family task adjustment	3.24	1.03	.36	.15	(.88)									
4. Family relationship adjustment	3.79	0.89	.27	.22	.67	(.89)								
5. Work contextual performance	4.10	0.61	.30	.39	.08	.17	(.89)							
6. Work task performance	4.28	0.57	.34	.27	.17	.15	.57	(.88)						
7. Family relationship performance	3.75	0.87	.36	.26	.53	.59	.22	.13	(.92)					
8. Family task performance	3.37	0.99	.45	.16	.40	.29	.20	.12	.50	(.94)				
9. Work engagement (attention)	6.07	0.81	.11	.11	.03	.14	.47	.33	.05	-.02	(.90)			
10. Work engagement (absorption)	5.13	1.05	.04	.17	-.08	-.02	.38	.31	-.11	-.12	.56	(.82)		
11. Family engagement (attention)	4.88	1.23	.20	.02	.39	.48	.06	.02	.44	.28	.11	-.06	(.91)	
12. Family engagement (absorption)	4.53	1.30	.10	.07	.20	.23	.08	.02	.27	.24	.07	.20	.53	(.92)

^a All correlations larger than .14 are significant at $p < .05$ and all correlations larger than .18 are significant at $p < .01$
 $n = 200$

TABLE 4

Means, Standard Deviations, Internal Consistency Reliabilities, and Pearson Correlations for the Combined Sample across Self-Initiated and Corporate Expatriates (Study 4) ^a

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Work role adjustment	4.05	0.61	(.81)													
2. Family role adjustment	3.64	0.85	.37	(.88)												
3. Work emotional demands	2.93	0.75	-.11	-.08	(.74)											
4. Work role overload	4.13	1.48	-.15	-.24	.29	(.82)										
5. Work instrumental support	2.86	0.95	.43	.14	-.05	-.11	(.91)									
6. Work emotional support	2.84	0.93	.35	.16	-.12	-.10	.55	(.91)								
7. Self-efficacy	4.16	0.59	.31	.19	.12	.07	.18	.09	(.92)							
8. Family emotional demands	2.06	0.69	-.22	-.32	.14	.18	-.12	-.07	-.10	(.86)						
9. Family role overload	2.51	0.87	-.07	-.19	.16	.38	-.13	-.07	.06	.32	(.85)					
10. Family instrumental support	3.55	1.11	.17	.36	.04	.02	.26	.15	.33	-.08	-.01	(.95)				
11. Family emotional support	3.67	1.06	.16	.32	-.03	.02	.18	.26	.28	-.14	.05	.67	(.94)			
12. Cultural adjustment	3.50	1.02	.31	.20	-.12	-.13	.10	.10	.08	-.08	-.02	-.03	.02	(.89)		
13. Accompanying family members	1.65	1.35	.04	.27	.05	.09	.05	.03	.04	.11	.04	.22	.15	.01	-	
14. Gender	0.28	0.45	-.03	.04	-.16	.01	-.04	.03	-.02	-.13	.07	-.13	.10	.11	-.14	-
15. Type of expatriate	0.47	0.50	-.20	-.14	-.03	.16	.09	.01	.14	.01	.03	.23	.15	-.33	.01	-.22

^a All correlations larger than .12 are significant at $p < .05$ and all correlations larger than .15 are significant at $p < .01$
 $n = 256$

TABLE 5

Means, Standard Deviations, Internal Consistency Reliabilities, and Pearson Correlations for Self-Initiated ^a and Corporate Expatriates ^b (Study 4)

Variable	Mean ^c	SD ^c	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Work role adjustment	4.16/ 3.92	0.62/ 0.56	(.83/ .77)	.28	-.21	.03	.43	.30	.40	-.17	-.02	.19	.19	.14	-.04	.04
2. Family role adjustment	3.75/ 3.51	0.81/ 0.88	.41	(.88/ .88)	-.08	-.12	.12	.21	.34	-.14	-.14	.50	.50	.21	.34	-.02
3. Work emotional demands	2.95/ 2.91	0.74/ 0.77	-.05	-.09	(.75/ .74)	.24	-.01	-.05	-.04	.24	.12	.06	-.08	-.04	.02	-.13
4. Work role overload	3.91/ 4.38	1.58/ 1.32	-.22	-.31	.35	(.83/ .80)	.09	.05	.04	.23	.23	.11	.03	-.03	.11	-.04
5. Work instrumental support	2.78/ 2.95	1.02/ 0.86	.47	.18	-.08	-.25	(.93/ .88)	.47	.14	-.01	-.08	.13	.04	.07	.01	.09
6. Work emotional support	2.83/ 2.85	0.96/ 0.90	.39	.12	-.18	-.21	.60	(.92/ .88)	.15	-.06	-.14	.15	.15	-.01	.03	.01
7. Self-efficacy	4.09/ 4.25	0.58/ 0.60	.30	.10	.28	.05	.19	.04	(.91/ .93)	-.07	.14	.38	.37	.11	.02	.04
8. Family emotional demands	2.05/ 2.06	0.71/ 0.67	-.25	-.48	.06	.15	-.19	-.08	-.13	(.88/ .84)	.34	.02	-.09	-.08	.18	-.18
9. Family role overload	2.48/ 2.54	0.85/ 0.89	-.10	-.23	.20	.49	-.17	-.01	-.02	.31	(.84/ .87)	.14	.05	-.04	-.05	-.01
10. Family instrumental support	3.32/ 3.83	1.09/ 1.06	.26	.31	.04	-.11	.32	.15	.24	-.16	-.15	(.95/ .93)	.73	.01	.20	.07
11. Family emotional support	3.52/ 3.85	1.04/ 1.06	.21	.21	.03	-.04	.27	.35	.17	-.19	.03	.61	(.94/ .94)	.06	.07	.17
12. Cultural adjustment	3.82/ 3.14	0.88/ 1.05	.39	.11	-.24	-.12	.20	.24	.16	-.08	.01	.10	.09	(.89/ .87)	.11	.06
13. Accompanying family members	1.64/ 1.66	1.30/ 1.42	.11	.21	.08	.09	.07	.02	.06	.05	.13	.24	.23	-.10	-	-.23
14. Gender	0.37/ 0.18	0.49/ 0.38	-.15	.02	-.21	.10	-.08	.05	-.01	.10	.14	-.19	.12	.12	-.08	-

^a Correlations for self-initiated expatriates (n = 137) are below the diagonal. All correlations larger than .16 are significant at p < .05 and all correlations larger than .21 are significant at p < .01

^b Correlations for corporate expatriates (n = 119) are above the diagonal. All correlations larger than .17 are significant at p < .05 and all correlations larger than .22 are significant at p < .01.

^c Means, SDs and Cronbach alphas (on the diagonal) for self-initiated expatriates are presented first.

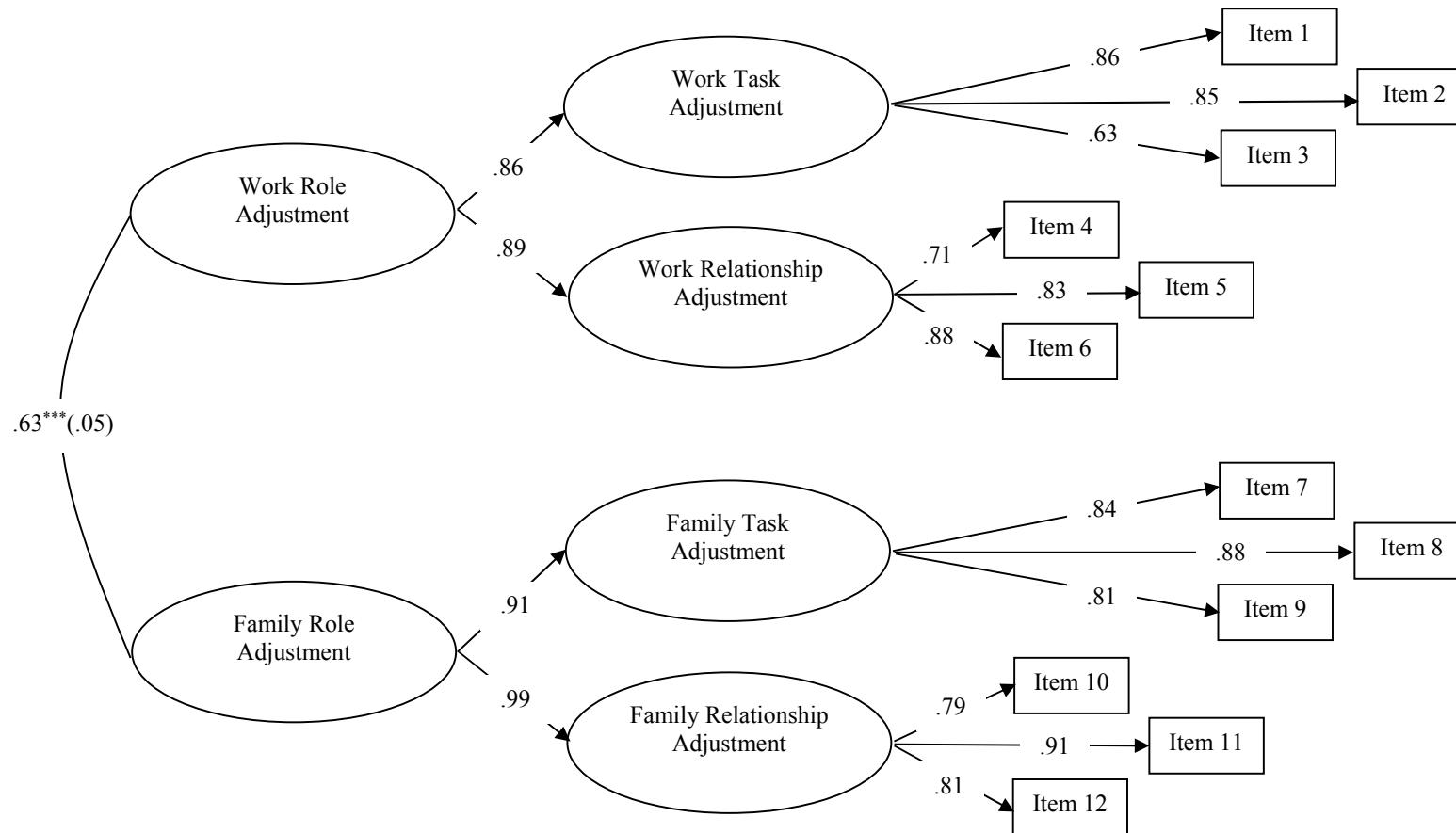
TABLE 6Means, Standard Deviations, Internal Consistency Reliabilities, and Pearson Correlations (Study 5) ^a

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Work role adjustment (T1)	4.04	0.65	(.82)								
2. Family role adjustment (T1)	3.52	0.81	.15	(.85)							
3. Work task performance (T2)	3.95	0.57	.34	.25	(.86)						
4. Work contextual performance (T2)	3.93	0.58	.39	.19	.64	(.85)					
5. Family task performance (T2)	3.47	0.88	.02	.20	.13	.14	(.92)				
6. Family relationship performance (T2)	3.83	0.75	.10	.43	.26	.29	.45	(.88)			
7. Cultural adjustment (T1)	3.66	0.93	.34	.14	.13	.19	.07	.01	(.87)		
8. Accompanying family members (T1)	1.79	1.48	-.14	.18	.06	.01	-.07	.12	-.02	-	
9. Gender (T1)	0.18	0.38	-.01	.07	-.10	-.02	.10	.06	-.01	-.05	-
10. Type of expatriate (T1)	0.50	0.50	-.26	-.14	-.04	-.13	-.11	-.18	-.36	-.01	-.08

^a All correlations larger than .17 are significant at $p < .05$ and all correlations larger than .24 are significant at $p < .01$
n = 136

FIGURE 1

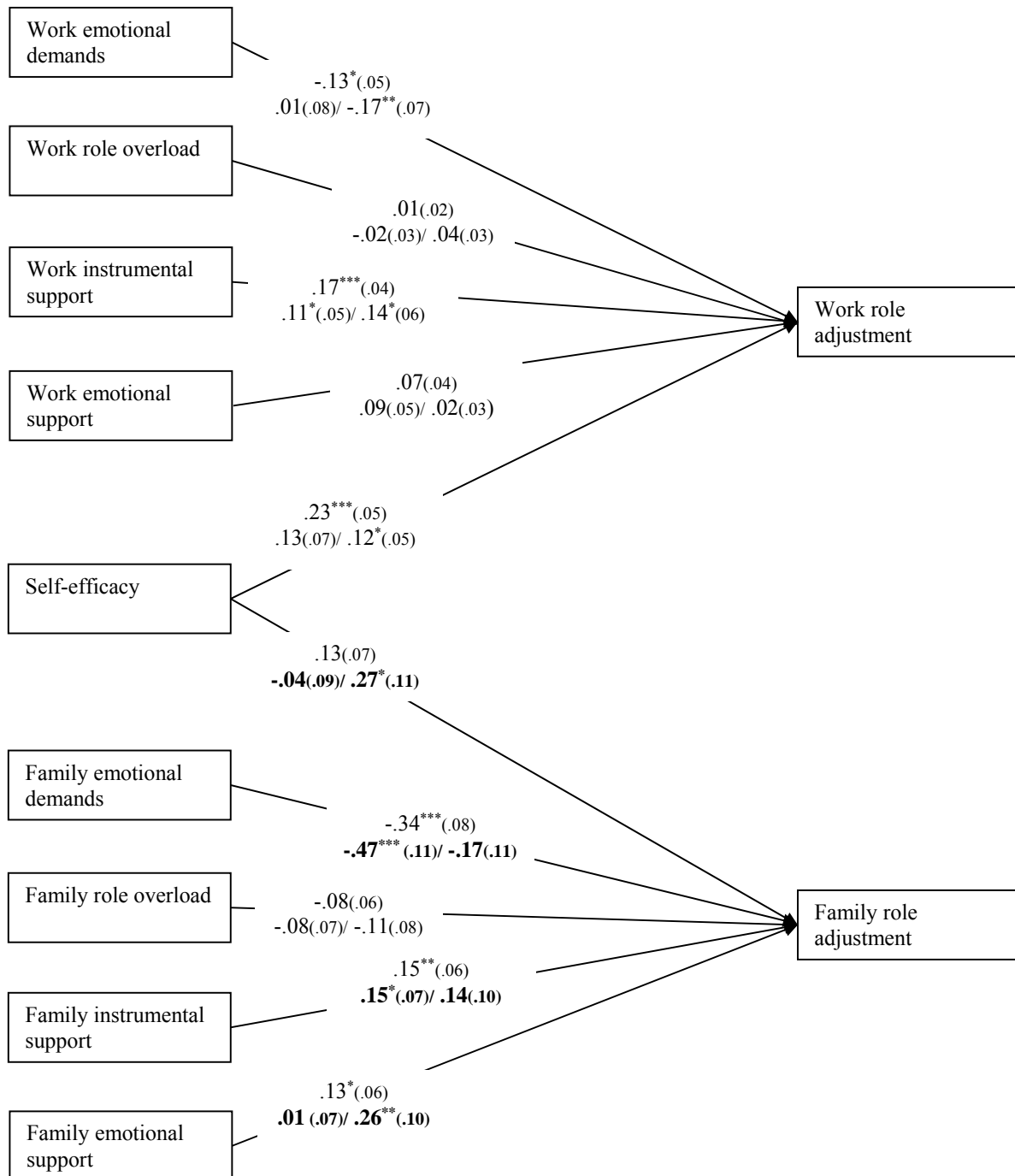
Results of Confirmatory Factor Analysis of the Higher-Order Factors of Work and Family Role Adjustment (Sample 2) (Study 1) ^a



^a Completely standardized factor loadings are presented. All factor loadings were significant.

FIGURE 2

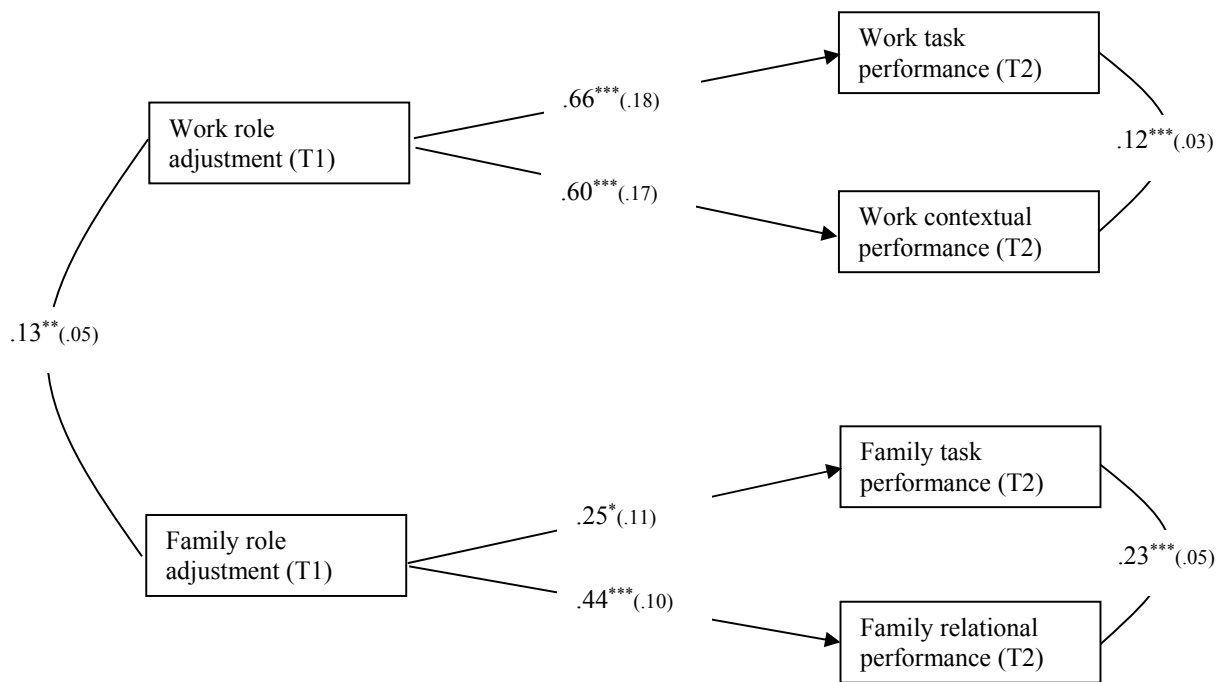
Results for Nomological Network of Work and Family Role Adjustment (Study 4) ^a



^a Numbers in parentheses are standard errors; Results for the combined model across expatriate types are presented on top; Results for SIEs (n = 137) are presented on the bottom left and results for CEs (n = 119) are presented on the bottom right; Parameters in bold denote significant group differences; Controls are omitted from the graph for clarity; *p < .05, **p < .01, ***p < .001

FIGURE 3

Results for Predictive Validity of Work and Family Role Adjustment (Study 5)^a



^a Numbers in parentheses are standard errors; Controls are omitted from the graph for clarity; n = 136; *p < .05, **p < .01, ***p < .001

ⁱ Further details provided from the corresponding author.

ⁱⁱ Further details provided from the corresponding author.

ⁱⁱⁱ We conducted a test of measurement invariance of the second-order factor structure of work and family role adjustment comparing all the English language samples we use in this paper (pooled together) to the French language sample. We conducted the test based on Chen, Sousa, and West's (2005) guidelines for measuring invariance of higher-order factors. The measure demonstrated configural invariance ($df = 98$, $\chi^2 = 488.22$, $CFI = .973$). Factorial and strong invariance (i.e., invariance of intercepts) will be achieved if there is no significant difference in chi-square from one nested model to another or the change in CFI is less than .005 (Chen, 2007). Both the first-order factor loadings ($\Delta\chi^2 = 4.80 > .05$, $\Delta df = 8$; $CFI = .973$) and the second-order factor loadings ($\Delta\chi^2 = 6.23 > .05$, $\Delta df = 4$; $CFI = .973$) demonstrated invariance. In terms of strong invariance, our measure demonstrated invariance of intercepts of the measured variables/items ($\Delta\chi^2 = 35.99 < .05$, $\Delta df = 8$, $CFI = .971$; $\Delta CFI = .002$) and invariance of intercepts of the first-order factors ($\Delta\chi^2 = 43.11 < .05$, $\Delta df = 4$, $CFI = .969$; $\Delta CFI = .002$).