Multidimensional Networking Behavior in Germany and China: Measurement Invariance and

Associations With Objective Career Success

Judith Volmer and Maximilian Orth

University of Bamberg

Hans-Georg Wolff

University of Cologne

Author Note

Judith Volmer, Work and Organizational Psychology Group, University of Bamberg;

Maximilian Orth, Work and Organizational Psychology Group, University of Bamberg;

Hans-Georg Wolff, Department of Psychology, University of Cologne.

Correspondence concerning this article should be addressed to Judith Volmer, Work

and Organizational Psychology Group, University of Bamberg, An der Weberei 5, Bamberg,

96047, Germany.

This is an author accepted manuscript of

Abstract

Prior research has so far established the multidimensional nature of networking behavior in Western but not Asian working populations. Based upon theories on cultural differences, the purpose of the present study was to assess the cross-cultural measurement invariance and predictive validity of a multidimensional networking scale for objective career success (i.e., salary and number of promotions) in Germany and China. We used a German and a Chinese sample (total $N = 248$) of individuals employed by the same multinational corporation with a two-month interval between the assessment of networking and career success. Multigroup confirmatory factor analyses demonstrated metric, but not scalar measurement invariance of the multidimensional networking measure, indicating that comparisons of relationships to other constructs, but not of mean differences across cultures are meaningful. Path-analytic findings indicated that some but not all networking subdimensions significantly predict salary and promotions two months later. Within and between cultural groups, relative weight analyses shed light on the complex pattern of relative importance of networking subdimensions (i.e., building, maintaining, or using intra- or extraorganizational informal relationships). Internal, but not external networking behaviors explained significant non-trivial variance in Chinese employees' salary and promotions. In the German group, a largely opposite pattern was found. Regarding cross-group differences, the relative importance of *building* and *using* internal contacts emerged as significantly greater in China in comparison to Germany, relative to the predictive power of control variables and the respective other networking dimensions. We conclude that the functional but not necessarily the structural facet of a multidimensional conceptualization of networking behavior exhibits meaningful cross-cultural equivalence.

   Keywords: networking, career success, longitudinal study, cross-cultural, measurement invariance, relative weight analysis

Multidimensional Networking Behavior in Germany and China: Measurement Invariance and

Associations With Objective Career Success

Integrating the growing body of interdisciplinary research on networking behavior,

Gibson, Hardy, and Buckley (2014) recently proposed a consensus definition of networking

as "a form of goal-directed behavior, both inside and outside of an organization, focused on

creating, cultivating, and utilizing interpersonal relationships" (p. 150). This complex

multidimensional notion of networking (see also Porter & Woo, 2015, for a discussion)

echoes recent advances in the networking literature that have relied on a multidimensional

scale (Wolff & Moser, 2006; Wolff, Schneider-Rahm, & Forret, 2011) to begin to map out

the differential effects that functional and structural facets of networking behavior exert on

desirable individual-level career outcomes (McCallum, Forret, & Wolff, 2014; Wolff &

Moser, 2009, 2010).

So far, however, it has remained undetermined whether a multifaceted

conceptualization of networking comprising multiple dimensions of engaging in informal

relationships at work (i.e., using, maintaining, and using contacts either intra- or

extraorganizationally; cf. Gibson, Hardy, & Buckley, 2014; Wolff & Moser, 2006) can be

readily applied to cultures other than Western ones. Implicitly, contemporary career models

(e.g., Lent & Brown, 2013) describe adaptive career behaviors such as networking as

universal, implying their cross-cultural equivalence in increasingly globalized occupational

environments. However, this assumption has not received much scholarly attention, thwarting

efforts to advance a culturally more informed understanding of the nature of networking

behavior. The few studies conducted so far do not allow firm conclusions as they rely on ad

hoc choices of items or even scales (Rasdi, Garavan, & Ismail, 2013; Wok & Hashim, 2014)

and only one single study actually compared networking using samples from two cultures,

albeit it did not examine whether comparisons are warranted (Cheung, Dougherty, & Herndon; 2011).

Thus, the purpose of the present article is to investigate the measurement invariance of an established multidimensional networking measure, so far validated in German and English speaking working populations (Gervorkian, 2011; Wolff & Moser, 2006; Wolff et al., 2011) across a Western (i.e., German) and Asian (i.e., Chinese) group of employees working for the same multinational company (MNC). In particular, this approach allows to control for the possible confounding effects of organization-specific variables (e.g., organizational culture, HR practices etc.) so as to facilitate conclusions regarding the adequacy and usefulness of a multifaceted construal of networking in collectivistic cultures such as China (Hofstede, 2003).

Further, the purpose of this study is to examine and compare the predictive validity of the present networking scale in both cultural groups to derive a more comprehensive picture of the widely assumed role of networking as an important agentic vocational behavior (for reviews see Gibson et al., 2014; Porter & Woo, 2015) across cultural boundaries. Specifically, we assessed relationships of networking facets with objective career outcomes (i.e., salary and promotions, assessed two months later) and pursued an exploratory approach to elucidate patterns of relative predictive importance within and between both cultural groups. Hence, our study aims at providing vocational and organizational scholars and practitioners alike with empirical guidance regarding the cross-cultural applicability of a multidimensional notion of networking behavior. Below, we develop our hypotheses regarding (a) the cross-cultural measurement invariance of networking behavior and (b) possible relationships of networking behavior with objective career success.

Networking as a Multifaceted Behavior

Networking, as defined in the introduction section refers to informal relationships (Wolff et al., 2008) that people use to exchange work related resources or favors such as task advice, information, or influence. These relationships represent a hybrid of universalistic and particularistic considerations, as people typically hold valuable resources due to their work role (the universalistic part) and are more inclined to informally provide these resources to those they know (the particularistic part). Trust and reciprocity are important mechanisms in this cooperative exchange, because trust facilitates this exchange of resources and the reciprocity norm secures that favors will be returned. Also, good 'networkers' have more contacts and moreover a higher number of nonredundant contacts (Wolff & Moser, 2006) that provide the opportunity to tap into a variety of resources (Burt, 2004).

Concerning the nomological net of networking, the focus on multiple contacts distinguishes networking from mentoring that considers a single, very specific relationship between a younger protégé and an older, senior mentor (Kram, 1985). In contrast to networking, the exchange in mentoring relationships is typically asymmetric, that is, the protégé receives career and psychosocial support, whereas the mentor attains loyalty and fulfillment of generative needs (Wolff, Moser, & Grau, 2008). Mentoring can, however, expedite networking when, for example, a mentor introduces the protégé to important contacts (Blickle, Witzki, & Schneider, 2009). In addition, scholars consider networking as a more malleable und thus trainable behavior syndrome. In contrast to broad dispositional constructs (e.g., extraversion or self-monitoring) networking also focuses on work or career related goals. This contextualized focus of networking is also evident in differential relationships between dispositional constructs and the facets of networking, which we discuss in the next paragraph (e.g., Wolff & Kim, 2012).

Accounting for calls to study career self-management strategies on more nuanced conceptual grounds (McArdle, Waters, Briscoe, & Hall, 2007), an increasingly influential

stream of research on networking behavior has moved beyond a homogenous, unitary understanding of the construct towards a multifaceted notion capturing the distinct structural and functional manifestations of working individuals' networking endeavors (Wolff et al., 2008). This theoretical shift has been acknowledged repeatedly in recent reviews of the pertaining literature, highlighting its scientific impact. For instance, Porter and Woo (2015) discuss how this "behavioral approach" provides incremental value to traditional organizational and managerial stances on networking by emphasizing "what people actually do when networking" (p. 1480) and that dimensions of networking behavior "may serve discrete functions that differentially relate to career outcomes" (p. 1480). As noted earlier, Gibson and colleagues (2014) have explicitly anchored their integrative theoretical model of networking around a multidimensional conceptualization of the construct, thereby considering both the structural (extra- versus intraorganizational networking) and functional (building, maintaining or using informal professional relationships) facets of networking. Paving the way for research in this vein, Wolff and colleagues have developed a multidimensional networking measure and empirically demonstrated its reliability and construct validity in German and English speaking employee samples (Gervorkian, 2011; Wolff & Moser, 2006; Wolff & Kim, 2012; Wolff et al., 2011).

Networking in Western and non-Western cultures

To our knowledge, three studies have examined networking behaviors in the Asian context. Utilizing samples from Hong Kong and the US, Cheung, Dougherty, and Herndon (2011) used items from three of Forret and Dougherty's (2001) five networking dimensions (i.e., socializing, increasing internal visibility, and professional activities), stating that the other dimensions (i.e., maintaining external contacts and participating in community activities) are 'uncommon' in the Asian context. In Malaysia, Rasdi, Garavan, and Ismail (2013) used items from all Dimensions of Forret and Dougherty's (2001) networking

measure, and Wok and Hashim (2014) examined internal and external networking in Malaysia.

Although these studies provide valuable insights into networking in an Asian context, we argue that conclusions concerning the cross-cultural comparability and generalizability are limited in two main ways. First, these studies used ad hoc adaptations of a few items of some networking dimensions that do not sufficiently delineate its structural and functional components (i.e., the consensual multidimensional definition as proposed by Gibson et al., 2014) and might not provide full coverage of the networking concept. Second, we argue that a statistical examination of the cross-cultural measurement (non)invariance of the full range of networking components is necessary to explicitly assess the cultural boundaries of a multidimensional conceptualization of networking behaviors. As we will explain in the section on cross-cultural invariance, measurement invariance is a prerequisite for comparisons across cultures. In sum, item subsets used in previous investigations of networking behavior in Asian contexts might not fully represent the original constructs and the lack of rigorous comparisons with Western cultures precludes sound conclusions on differences in means and also relationships between networking behaviors and other constructs.

In light of this, our study contributes to the literature by applying a multidimensional networking scale in a Western and non-Western context, hence accounting for calls to explore the cross-cultural generalizability of vocational behavior (e.g., Heslin, 2005). We empirically assess the transferability of the scale (and thus, of a multifaceted notion of networking behavior) from a Western (i.e., German) to an Asian (i.e., Chinese) occupational environment with a twofold approach. First, we conducted cross-group measurement invariance analyses to evaluate the extent of cross-cultural equivalence of psychometric properties of the present scale. Second, we evaluate and cross-culturally compare the

predictive validity of the multidimensional networking measure by means of a comprehensive examination of its associations with objective career success (i.e., salary and promotions) via path- and relative weight analyses.

To examine whether the Western networking concept can be applied to the Chinese culture also requires a comparison of the German (i.e., Western) and Chinese cultures. Cultural norms shape affective and cognitive processes, and also behavior. They therefore influence how people create, develop, and utilize interpersonal relationships at work. In terms of Hofstede's (2003) dimensions of national culture, China and Germany differ in three key characteristics. The Chinese culture is characterized by 1) higher power distance 2) lower individualism, and 3) lower uncertainty avoidance than the German culture. First, the dimension of power distance refers to an unequal distribution of prestige, wealth, and power that is more acceptable in China than in Germany. Thus, organizational hierarchies constitute of higher boundaries in China, whereas direct and participative communication across hierarchies is more common in Germany. For example, Smith, Peterson, and Schwartz (2002) found that in a range of managerial situations,,managers from high power distance societies thought that reliance on formal rules and procedures was more appropriate than managers from low power distance societies. As networking relies on informal contacts, networking across hierarchies might be harder and less common in China. Second, in individualistic cultures cognition and behavior is governed by individuals' goals, attitudes, and personal preferences, whereas members of collectivistic cultures place higher priority on group interests, and harmonious relationships, which results in a stronger obligation to provide in-group members with favors. In numerous studies Leung has shown that people put more emphasis on the distinction between in-groups and out-groups in collectivistic cultures. For example, in collectivistic cultures rewards are allocated more egalitarian in in-groups (Leung & Bond, 1984), and people behave more businesslike and exploitative towards outgroups

(Leung & Iwawaki, 1988) and are less likely to interact and share their knowledge with out-groups (Lu, Leung, & Koch, 2006). Therefore, networking might have to take interests of in-groups into account whereas individual goals are more important for networking in Germany. Finally, Germany is also considered a culture with high uncertainty avoidance indicating that planning and rules are more valued than ambiguity and uncertainty, whereas people in the Chinese culture are more comfortable with uncertainty, as for example present in entrepreneurial contexts.

In sum, the networks acquired might differ across cultures in which, in comparison to Germany, cultural values (i.e., collectivism, power distance) and norms may restrict the range of contacts in China and might also result in a more densely knit in-group network of stronger contacts. Yet, it remains an open question to what extent people use different behaviors to build, maintain, and use their contacts. In line with recent criticism on ethical research practices, we abstained from hypothesizing after results are known, but rather explore potential differences, for which, based on the literature, a myriad of hypotheses appear plausible.

Cross-Cultural Measurement Invariance

To overcome ethnocentric bias and to enhance the international theoretical and practical impact of organizational and vocational research, explicit assessments of the equivalence of important psychological constructs across different cultural contexts are necessary (Gelfand, Erez, & Aycan, 2007; Shiraev & Levy, 2013). Networking, the focal construct of the present research is widely believed to serve as an important career self-management strategy (Laud & Johnson, 2012; Lent & Brown, 2013), but our understanding of its cultural boundaries remains in its infancy. In this study, we use a cross-cultural sample of white-collar employees working for a global player in high-tech manufacturing. We anticipate some degree of (i.e., configural and metric) cross-group invariance of the present

multidimensional networking scale in light of the high degree of globalization that characterizes the work environments of our participants.

Measurement invariance is a statistical concept representing a continuum of increasing similarity. Using the confirmatory factor analysis framework, scholars posit three general models that successively allow more meaningful comparisons across groups (Steinmetz, Schmidt, Tina-Booh, Wieczorek, & Schwartz, 2009; Milfont & Fisher, 2008). Cross-group *configural invariance* implies the same number of factors and the same pattern of fixed and non-fixed parameters of the respective measurement model. In this study, configural invariance indicates that members of each group conceptualize the theoretically anticipated dimensions of networking behavior *similarly* and that items belong to the same latent construct(s) in both cultures (e.g., asking for advice is a manifestation of using, but not building contacts).

Metric invariance refers to equally constrained factor loadings, reflecting a strict condition for construct comparability across groups. According to Steinmetz, Schmidt, Tina-Booh, Wieczorek, and Schwartz (2009), metric invariance constitutes "a prerequisite for inferring that the construct has the *same* meaning" (p. 603) and is necessary for meaningful quantitative comparisons. If metric invariance holds, relationships between constructs (e.g., the relationship between networking and career outcomes) can be meaningfully compared across cultures. On the basis of our considerations above, we assume the multidimensional networking scale will exhibit this level of cross-cultural measurement invariance in the present samples of white-collar employees in a MNC.

By contrast, we argue that it is unreasonable to expect *scalar invariance*, which refers to identical item means across cultures and represents a necessary condition to meaningfully compare scale means across cultures (Steinmetz et al., 2009). This is in line with findings from other scales assessing important vocational constructs such as career adaptability

(Savickas, & Porfeli, 2012). For example, slight differences in the meaning of scale anchor translations might result in different mean scores.

Given the discussion on networking in the previous section, the focus on in-group contacts and strong ties might well yield mean differences in items indicating that showing some behaviors might be restricted by the cultural context (e.g., building contacts beyond one's in-group might be rarer in China). In sum, we propose the following hypotheses regarding the invariance of the multidimensional networking scale across Germany and China.

Hypothesis 1a. The present multidimensional networking scale will exhibit configural invariance across groups of German and Chinese white-collar employees employed by the same multinational company.

Hypothesis 1b. The present multidimensional networking scale will exhibit metric invariance across groups of German and Chinese white-collar employees employed by the same multinational company.

Networking and Objective Career Success

Networking behavior is thought to influence an array of important outcomes variables including visibility, power, career success, performance, and turnover (see Gibson et al., 2014, for a review), but also well-being (e.g., positive affect, career optimism; Volmer & Wolff, 2016). The goal of this study is to explore the cross-cultural transferability of a multidimensional networking scale not only by examining its psychometric invariance but also its predictive validity. Regarding the choice for appropriate criterion variables, we opted for objective career success (i.e., salary and promotions). According to Heslin (2005), objective career success outcomes are defined as "directly observable, measurable, and verifiable by an impartial third party" (Heslin, 2005, p. 114). Kraimer, Seibert, and Astrove (2015) recently reiterated this definition in their success typology and specifically regard

salary and promotions as extrinsic success outcomes due to their instrumental value. In light

of this sentiment as well as research supporting the meaningfulness of these outcome

variables in a Chinese context (Bian, Huang, & Zhang, 2015; Gong & Chang, 2008; Tu,

Forret, & Sullivan, 2006), we chose to assess these outcome variables.

Studies in Western and Asian cultures alike support a positive association between

networking and objective career success (Ng & Feldman, 2014; Rasdi et al., 2013; Wok &

Hashim, 2014). In their review and theoretical synthesis of the networking literature, Gibson

et al. (2014) identified two mechanisms thought to account for this relationship, access to

strategic information, and social capital. The former may, for instance, facilitate salary

negotiations and boost job performance. Social capital, defined as characteristics of social

structures that facilitate certain actions (Coleman, 1988), captures a higher-level construct

than specific networking behaviors, because itrefers to one's overall individual network

structure (Gibson et al., 2014). Social capital can increase a person's visibility, reputation, or

power that affect career outcomes (Wolff et al., 2008).

As discussed earlier, a multidimensional notion of networking behavior entails the prospect

to examine differential relations with relevant outcome variables, and research in this vein is

slowly beginning to accumulate (e.g., McCallum et al., 2014; Wolff & Moser, 2010).

However, theoretical advances that provide guidance regarding such differential predictions

in light of cross-cultural differences have yet to be achieved. Hence, we pursue an

exploratory approach to examine the pattern of associations between dimensions of

networking behavior and objective career success in Germany and China in this study. The

decision for this approach is also driven by the purpose of this study which centers on a

preliminary examination of the cross-cultural equivalence of a consensual multifaceted

conceptualization of networking behavior. For this purpose, we broadly hypothesize a

positive link between networking and objective career success and conduct detailed

exploratory analyses of the differential predictive power of networking dimensions within and between both cultural groups under study.

Hypothesis 2. Networking behavior will be positively related to objective career success (i.e., salary and promotions) in Germany and China.

Method

Procedure and Participants

We conducted a two-wave, web-based field study with a time lag of two months. Data was collected from Chinese and German white collar employees who were employed by the same international manufacturing company, a global provider of semiconductors. With the help of two directors of the company's human resource department, potential participants were contacted via e-mail and invited to take part in a study on networking behavior. In order to ensure compliance, an anonymized feedback report was offered after study completion, outlining the purpose, theoretical background, and key results of the study. Data were available for 118 German and 130 Chinese employees at Time 1 (T1). After two months had elapsed and participants completed the Time 2 (T2) questionnaire, data were available for 107 German and 93 Chinese employees, resulting in a satisfactory response rate of 90.68% and 71.57% in the German and Chinese sample, respectively. Since data from one German participant could not be matched and thus had to be excluded from further analyses, the final German sample consisted of 106 participants with a mean age of 44.7 years ($SD = 11.29$). 37.7% of the German participants were female. Ten Chinese participants were excluded over the course of data matching. As a result, the final Chinese sample included 83 employees who, on average, were 37.2 years old ($SD = 6.82$). 56.6 % of the Chinese participants were female. On average, German and Chinese participants reported an organizational tenure of 14.26 ($SD = 10.50$) and 10.05 years ($SD = 6.22$), respectively.

Measures

Following Banville, Desrosiers and Genet-Volet's (2000) recommendations for cross-cultural research, a double translation/back-translation procedure was employed to ensure semantic equivalence. The original German multidimensional networking scale (Wolff & Moser, 2006) and instructions were translated and back-translated by a committee of four Chinese native speakers proficient in German. Alongside the traditional Chinese translation, Chinese participants were additionally provided with the English version of the present networking measure (Wolff, Schneider-Rahm, & Forret, 2011). Both, the German and Chinese version of the multidimensional networking scale can be obtained upon request.

Networking behavior. Employees' habitual networking behavior was assessed with Wolff and Moser's (2006) multidimensional 44-item measure assessing six subscales which result from crossing the theoretically derived functional and structural facets of networking. The functional facet denotes to *building*, *maintaining*, and *using* informal relationships at work, whereas the structural facet captures whether networking is pursued inside or outside of one's organization (i.e., *internal* versus *external* networking). On 4-point Likert scales (1 = *never/very seldom* and 4 = *always/very often*), participants indicated how often they engaged in specific networking behaviors. Sample items for the six subscales were "I use company events to make new contacts" (building internal contacts; assess with 6 items in total, for German and Chinese samples Cronbach's α = .75/.84, respectively), "I catch up with colleagues from other departments about what they are working on" (maintaining internal contacts; 8 items, α = .79/.85), "I use my contacts with colleagues in other departments in order to get confidential advice in business matters" (using internal contacts; 8 items, α = .80/.89), "I accept invitations to official functions or festivities out of professional interest" (building external contacts; 7 items, α = .81/.88), "I ask others to give my regards to business acquaintances outside of our company" (maintaining external contacts; 7 items, α = .80/.88), "I exchange professional tips and hints with acquaintances from other organizations" (using

external contacts; 8 items, α = .83/.93). Several studies provide comprehensive evidence for

the construct validity of the present multidimensional networking scale (e.g., Wolff & Moser,

2006; Wolff & Kim, 2012).

Objective career success. In line with extant career research (Ng, Eby, Sorensen, &

Feldman, 2005) and contemporary typologies of career success (Kraimer, Seibert, & Astrove,

2015), we assessed self-reported salary and number of promotions as key objective career

success outcomes. Specifically, participants were provided with information on currency

translation rates to indicate their current monthly salary in US dollars (1 = *up to $999*, 2 =

$*1000–$1999*, 3 = $*2000–$2999, …,* 11 = $*10.000–$10.999*, and 12 = *more than $11.000*).

Participants reported how many promotions they had received since joining the company. A

promotion was defined as "any upwards movement in the organizational hierarchy and/or any

job change that involves substantial increase in responsibilities, power and salary"

(Bozionelos & Wang, 2006, p. 1538).

Control variables. To rule out alternative explanations, several sociodemographic

control variables were assessed. In particular, we controlled for participants' age, sex (1 =

female, 2 = *male*), education (1 = *none*, 2 = *high school or equivalent*, 3 =

vocational/technical secondary school/Zhongzhuan, 4 = *some college*, 5 = *university level*

degree, 6 = *doctoral degree*), and organizational tenure. Meta-analytic findings show positive

associations of these variables with both salary and promotions (Ng et al., 2005).

Statistical Analyses

We used *M*plus (Version 7.2; Muthén & Muthén, 2015) for all statistical analyses

described below. Cross-cultural measurement invariance was assessed with two stages of

confirmatory factor analyses (CFA). First, we examined the dimensionality of networking

behavior separately in each cultural group, thereby testing the configural invariance of the

multidimensional networking scale (Cheung & Rensvold, 1999; Milfont & Fisher, 2008).

Second, multigroup CFA was used to further inspect measurement invariance across both samples. Following the approach pursued in previous research (Wolff & Moser, 2008), parcels were created according to the parceling scheme employed by Wolff and Moser (2006) in their validation study of the present networking scale. Thus, we ensured continuity and comparability with prior research by favoring a meso-level of (dis)aggregation in constructing our latent measurement models (Little, Cunningham, Shadar, & Widaman, 2002). To evaluate model fit, the comparative fit index (CFI), the Tucker–Lewis index (TLI), and the root-mean-square error of approximation (RMSEA) were assessed. Cutoff values were .90 for CFI and TLI indices, and .08 for RMSEA (Bentler & Bonett, 1980; Byrne, 2010). To deal with missing values and nonnormality, robust maximum likelihood estimation (MLR) was used. Latent factors were scaled by means of the marker variable method (Little, Preacher, Selig, & Card, 2007). Nested models were compared by conducting Satorra–Bentler scaled difference chi-square tests (Bryant & Satorra, 2012; Satorra & Bentler, 2001). Further, we conducted multigroup path analysis with observed variables to investigate time-lagged associations of multidimensional networking with both objective career success outcomes simultaneously in both cultural groups.

Results

Tables 1 and 2 show the means, standard deviations, and intercorrelations of study variables observed in the German and Chinese sample, respectively.

Cross-Cultural Measurement Invariance

Configural invariance. Table 3 shows the model fit indices obtained for a series of competing latent measurement models tested separately in the German and Chinese subsample. The theoretically anticipated correlated six-factor model adequately fit the data in both cultural groups. Each of the competing models (i.e., a one-factor model, models in which either the structural or functional facets of networking were aggregated, and an

alternative five-factor model) yielded fit indices below the cutoff values, indicating inferior model fit in comparison to the theoretical six-factor model (see Table 3). Hence, initial evidence for the cross-cultural configural invariance of multidimensional networking behavior was found, supporting Hypothesis 1a.

Metric invariance. Subsequently, cross-group invariance analyses proceeded with multigroup CFA. As a first step, the correlated six-factor model was specified simultaneously in both samples. This unconstrained model yielded good fit, SB-$\chi^2(348) = 477.83$, $p < .001$, CFI = .95, TLI = .93, RMSEA = .063, again confirming the configural invariance of multidimensional networking across cultural groups. Next, factor loadings of the same indicators (i.e., parcels) were constrained to be equal across groups to examine metric invariance. Results indicated that the metric model (see Table 4) did not differ significantly in fit from the previously specified unconstrained (i.e., configural) model ΔSB-$\chi^2(15) = 11.16$, $p = .74$. Thus, we found support for Hypothesis 1b.

Scalar invariance. To assess the presence of scalar invariance, equality constraints were placed on all item intercepts across both cultural groups. The resulting model fit significantly worse than the metric model, ΔSB-$\chi^2(21) = 132.61$, $p < .001$. An examination of the modification indices for the model specifying full scalar invariance revealed three substantial values. Testing a subsequent model in which the intercepts of the three respective indicators were freely estimated still indicated a significantly worse model fit compared to the metric model, ΔSB-$\chi^2(18) = 80.53$, $p < .001$. In sum, results from multigroup CFA confirmed neither full nor partial scalar invariance of multidimensional networking across both samples.

Path-Analysis

Table 5 shows the results from specifying a multivariate multigroup path-analytic model in which control variables and networking dimensions predicted German and Chinese employees' salary and promotions simultaneously.

Positively predicting promotions, the only intraorganizational networking dimension significantly related to Germans' objective career success was *building* internal contacts (β = .15, *SE* = 0.07, *p* = .049). Further, two different functional forms of German employees' extraorganizational networking behavior significantly and differentially predicted objective career success: *Maintaining* external contacts positively predicted promotions (β = .32, *SE* = 0.14, *p* = .027), whereas *using* external contacts positively predicted salary (β = .25, *SE* = 0.12, *p* = .045). By contrast, extraorganizational networking emerged as entirely unrelated to objective career success in the Chinese group. Conversely, *building* and *using* internal contacts significantly predicted both salary (β = .38, *SE* = 0.10, *p* < .001 and β = .22, *SE* = 0.11, *p* = .043, respectively) and promotions (β = .25, *SE* = 0.12, *p* = .033 and β = .41, *SE* = 0.11, *p* < .001, respectively) among Chinese participants. In sum, path-analytic results support Hypothesis 2.

Relative Weight Analyses

Using Tonidandel and LeBreton's (2015) online tool RWA-Web, we conducted relative weight analysis (RWA) to investigate patterns of relative importance of our predictor variables for objective career success, both within and between both cultural groups. RWA is a powerful method to "decompose the total variance predicted in a regression model (R^2) into weights that accurately reflect the proportional contribution of [multiple, often correlated] predictor variables" (Tonidandel & LeBreton, 2015, p. 207), thus serving as a valuable supplement to traditional regression analysis. In light of the observed interrelations among subdimensions of networking behavior as well as control variables (i.e., age, sex, education,

and organizational tenure), RWA also allowed us to appropriately address possible issues of multicollinearity (Tondidandel & LeBreton, 2011, 2015).

Within-group pattern of results. Tables 6 and 7 show the RWA results obtained for the criterion variables salary and promotions, respectively. In both tables, results from RWA conducted separately in the German and Chinese group are summarized. Multiple parameters are reported including (a) raw relative weights as a measure of relative effect size, (b) rescaled relative weights indicative of the percentage of the total explained variance in the criterion variable attributable to the respective predictor variable, (c) 95% confidence intervals (CIs) for individual raw relative weights, and (d) CIs testing the statistical significance of relative weights. All CIs were based on bootstrapping with 10,000 replications; bias corrected and accelerated CIs were used on grounds of their superior coverage accuracy, as recommended by Tonidandel, LeBreton, and Johnson (2009). Notably, the regular CIs around relative weights (c) provide information on the sampling distribution of weight estimates, whereas meaningfully different CIs (d) were used to assess statistical significance (Tonidandel, LeBreton, & Johnson, 2009). Results demonstrate that weighted linear combinations of our predictor variables explained roughly half of the total variance in both objective career success outcomes in both cultural groups ($R^2 = 0.51$–57 and $R^2 = 0.45$–54 for salary and promotions, respectively), closely mirroring R^2 values obtained in the previously conducted path analysis (see Table 5).

An examination of raw relative weights (RWs) indicates a largely opposite pattern for the German and Chinese group. In the Chinese sample, maintaining, building, *and* using internal contacts explained a significant amount of variance in salary (RWs = .17, .09, and .10, respectively) and promotions (RWs = .11, .07, and .14), as all of the associated 95% CIs for tests of statistical significance excluded zero. Notably, maintaining internal contacts had emerged as unrelated to salary and promotions in our path analysis (see Table 5), whereas

RWA showed that *all* dimensions of intraorganizational networking including the maintenance dimension significantly predicted objective career success. This "lack of concordance in the significance of the regression coefficients and the relative weights is not uncommon" (Tonidandel & Breton, 2015, p. 215) and in this case indicates that all dimensions of intraorganizational networking explain *non-trivial* variance in salary and promotions, but due to intercorrelations among the predictor variables maintaining internal contacts explains little unique, *incremental* variance. RWA results for the Chinese group further demonstrate that extraorganizational networking was unrelated to objective career success, in line with path-analytic results.

By contrast, the pattern observed in the German group suggests that all functional dimensions of extraorganizational networking significantly predict variance in salary (RWs = .05, .07, and .08, for building, using, and maintaining external contacts, respectively) and promotions (RWs = .07, .09, and .04, respectively). Previous path-analytic results had indicated that only using external contacts significantly predicted Germans' salary, and that only maintaining external contacts predicted promotions (see Table 5). Again, RWA results revealed that all subdimensions of extraorganizational networking explained non-trivial variance. Conversely, only the relative weight of *maintaining* internal contacts for salary was statistically significant (RW = .05), whereas none of the (other) intraorganizational networking behaviors significantly predicted objective career success (see Tables 6 and 7). Although the regression weight of building internal contacts predicting promotions had reached significance in the path analysis, its relative weight (RW = .04) was not significant (only marginally) as the corresponding 95% CI included zero, [0.00, 0.12]. Briefly, RWA results supported Hypothesis 2 regarding our overall assumption of a positive association of networking behavior with objective career success.

Between-group comparisons. To assess whether the magnitude of the relative weight estimates for our predictor variables differ significantly between both cultural groups, group difference tests for relative weights were conducted (Johnson, 2004; Tonidandel et al., 2009). If the resulting CIs estimated for each predictor variable exclude zero, the relative weight of the pertaining predictor differs significantly between groups (grouping variable: 0 = *Chinese*, 1 = *German*). We conducted this analysis separately for each career success outcome. With regard to dimensions of networking behavior, results suggest a greater relative importance of intraorganizational networking for objective career success in China. Specifically, the relative weight of using internal contacts was shown to be significantly higher for Chinese participants' salary and promotions than for Germans', 95% statistical significance CIs = [0.03, 1.71] and [0.05, 2.45], respectively. Moreover, the relative weight of building internal contacts predicting salary was significantly higher in the Chinese group, 95% CI = [0.10, 2.68].

Discussion

The purpose of this study was twofold. First, we examined the degree to which an established multidimensional networking scale, so far exclusively applied to Western working populations, exhibited cross-cultural measurement equivalence across a German and Chinese sample of working individuals employed by the same MNC. Results indicate the presence of configural and metric, but not scalar measurement invariance. However, mean scores of extraorganizational networking as well as correlations between intra- and extraorganizational networking were somewhat low in the Chinese group. A plausible explanation is the heigthtened distinction between in-grouips- and out-groups in China. Yet, we cannot fully rule out a possibly decontextualized application of the concept of extraorganizational networking behavior among Chinese individuals. Second, we were interested in determining the predictive validity of the multidimensional networking scale in

both cultural groups by assessing associations of networking behaviors with objective career success (i.e., salary and number of promotions, assessed two months later). We complemented our path-analysis with relative weight analyses to explore the relative effect sizes of networking subdimensions and control variables within and between our two subsamples. In line with theoretical models of overall networking, specific networking dimensions were indeed significantly and positively related to self-reported objective career success, depending on which cultural group and which success outcome were considered. We provide an in-depth discussion of our findings below.

Theoretical Contributions

A multifaceted behavioral notion of networking behavior as posited by Wolff and colleagues (e.g., Wolff et al., 2008; Wolff & Moser, 2009) has been acknowledged as "the most comprehensive coverage of the networking construct space to date" (Porter & Woo, 2015). Yet, hardly any research has so far assessed the cross-cultural boundaries of this conceptualization (see Wolff et al., 2011, for an exception), which has been primarily put under empirical scrutiny in Western working populations to date (Wolff & Moser, 2009, 2010; Wolff & Kim, 2012). Hence, our findings broaden the scope of the literature by demonstrating that networking behavior can not only be conceived of as functionally multifaceted in Western but also in an Asian (i.e., Chinese) context. Evidence for the cross-cultural configural and metric measurement invariance of Wolff and colleagues' multidimensional networking scale (Wolff & Moser, 2006; Wolff et al., 2011) initially suggested that German and Chinese employees conceptualize networking behavior equivalently and respond to the respective items similarly. Our finding of scalar noninvariance further implies that (latent) mean comparisons across both cultural groups are not advisable, and that such comparisons across Western and Asian cultures may equally require caution.

Moreover, our findings regarding the predictive power of dimensions of networking behavior for objective career success merit closer scrutiny. In sum, our results confirmed the assumption of a positive association of networking behavior(s) with objective career success, in line with previous research (Ng & Feldman, 2014; Rasdi et al., 2013; Wok & Hashiam, 2012). Regarding German employees' salary, we found that all subscales except building and using internal contacts explained significant variance in salary. In a sample of German employees, Wolff and Moser (2009) found that, in comparison, all six networking dimensions concurrently explained significant non-trivial variance in salary. Our findings thus highlight the importance of external networking for salary attainment in Germany and suggest that effects of intraorganizational networking might depend on additional contextual variables. For example historical differences (e.g., economic cycles) between studies or specifics of the MNC we examined might account for the slightly divergent findings.

In contrast, only intra-, but not extraorganizational networking was significantly related to salary and promotions in the Chinese sample (see RWA results). Moreover, in comparison to the German sample some of the relationships between intraorganizational networking and career outcomes were significantly higher in the Chinese sample. We suggest that cultural differences in collectivism and power distance between China and Germany may be responsible for the differences in the importance of networking. Given the stronger focus on strong ties and in-group members in collectivistic societies, intraorganizational networking appears to be especially important for career success. Because the more pronounced distinction between in-groups and out-groups in collectivistic societies results in distinct cognitions of and behaviors towards external contacts, it might be hard, atypical, or at times inappropriate to build, maintain, and use extraorganizational contacts. Also, presuming that it is more difficult to build, maintain, and use contacts across hierarchies in high power

distance cultures, overcoming this barrier by means of intraorganizational networking might yield even higher returns and career success.

Generally, an interesting theoretical implication that may be drawn from our findings is the need for networking theorizing to not only acknowledge the complex multidimensionality of networking behavior but also to consider the largely neglected issue of relative contributions of specific networking behaviors to the emergence of vocational outcomes. Do cultural (cf. this study), temporal (e.g., proximity patterns of mobility outcomes, cf. Wolff et al., 2010), and contextual boundary conditions (e.g., organizational and occupational characteristics such as HR practices) affect the corresponding relative importance of networking behaviors for respective outcome variables? Thorough theorizing and empirical insight into this question have the potential to greatly enhance the accuracy of our prediction regarding the differential effects of networking behaviors and equip practitioners with the necessary expertise to guide their clients networking endeavors on a more informed basis.

Limitations

Several study limitations need to be addressed. First, we modelled no change in our outcome variables because we did not opt for repeated assessments of salary and promotions across more frequent measurement occasions. Prior research indicates that meaningful changes in objective career success outcomes may occur across far longer time spans (i.e., years) than the two-month time lag in our study. The primary purpose of the current research however, was not to elucidate the possible role of networking in long-term changes of objective career success. Rather, we were interested in establishing initial evidence for the predictive validity of the present networking measure in a Chinese sample of working individuals. Nevertheless, future research should strive to shed light on how multidimensional networking influences the long-term emergence of both objective and

subjective career success outcomes. A second limitation of our study was the narrow focus on objective success measures which we considered to be culturally invariant to the extent that salary and promotions are likely to be comparably valued and meaningful in both our subsamples. We urgently call for more qualitative and quantitative efforts to determine if and how cultural differences impact the conceptualization of self- and other-referent subjective career success outcomes (e.g., perceived marketability, career satisfaction). Pertaining insights would pave the way for research that simultaneously assesses multiple career success outcomes of networking behavior on a cross-cultural level of analysis. Third, the correlative nature of our findings regarding associations between networking behaviors and career success implies that the possibility of reverse caution (e.g., more successful employees may engage in more frequent networking) cannot be ruled out. Multi-wave, change-oriented investigations of the underlying developmental patterns and possible directions of causality are needed to elucidate this question. Finally, although we think our focus on employees of a single multinational corporation is a distinct strength of our study, it also comes at some costs. Chinese employees of a MNC might not be representative for the Chinese population, as working in an MNC provides exposure to an international, western context. In this vein, we caution scholars to generalize the present findings, for example, to the Chinese rural population. However, our study in a single MNC minimizes some other contextual alternative explanations for our findings, such as differences in HR practices (e.g., compensation and promotion systems) or organizational culture.

Practical Implications

Our findings have some important implications for employees or managers as well as organizations. The metric invariance of the networking construct implies that the concepts of building, maintaining, and utilizing intra- as well as extraorganizational contacts is meaningful in both cultures and can thus be applied in strategic considerations of networking,

for example, in career planning. Yet employees must be aware that the value of intra- and extraorganizational networking differs in China and Germany and they should focus their networking accordingly. Orientations and trainings for expatriates should also emphasize that learned contingencies between networking styles (i.e., a focus on intra- vs. extraorganizational networking) and career outcomes must be reconsidered and necessitate adaptation to specific cultures. Our finding also informs HR managers that different kinds of networking yield career success and thus provide individual incentives (i.e., the prospect of salary increases and promotions) for different kinds of networking behaviors. Thus if other kinds of networking are valuable to an organization, HRMs might have difficulties and should align incentives accordingly. For example, increasing extraorganizational networking in China to reap organizational benefits can be supported by expense accounts, strategic discussions or the inclusion of networking in performance reviews (Collins & Clark, 2003).

Future Research

We call for more indigenous and cross-cultural research to unravel the nature of networking behavior in non-Western cultures. While our study provides initial insight into the cross-culturally invariant functional facets of networking inside one's organization (i.e., building, maintaining, and using informal contacts), it is too early to derive a definitive answer as to whether networking is explicitly pursued as a universal strategy to self-direct one's career (e.g., attain career goals, regulate career insecurity, cope with anticipated or experienced occupational transitions). Tied to this sentiment is the need for future research to thoroughly assess whether individual-level cultural differences (e.g., values, norms, beliefs) affect the enactment and functioning of networking behavior. Our study specifically raises the question why Chinese employees (in a globalized occupational environment) report to hardly engage in any networking behaviors outside of their organization. We assume that it is likely that this finding is due to cultural differences, as our sampling strategy relied on a

single MNC, hence allowing us to largely rule out the possible confounding role of differences in organization-specific socialization or industry. Gibson et al.'s (2014) integrative networking theory organizes possible antecedents of (overall) networking behavior into three categories: organizational (e.g., organizational culture), job characteristics, and individual antecedents (e.g., personality, attitudinal variables, self-esteem), some of which may be subject to cultural differences and in turn affect the likelihood of engaging in intra- versus extraorganizational networking. Despite recent advances in the networking literature, however, findings on "differential" antecedents of structural and functional dimensions of networking are still scarce (see Wolff & Kim, 2012, for an exception), rendering it difficult to derive comprehensive explanations regarding our finding of low extraorganizational networking among Chinese working individuals. Consequently, we call for more exploratory field studies in this vein. A notable example for this approach is Kim's (2013) semi-standardized interview study of managers' self-reported networking experiences. This qualitative study adopted, at least partially, a multidimensional lens on networking behavior by distinguishing differential antecedents (enablers versus constraints) and outcomes of building and maintaining (but not using) informal relationships. However, the distinction between intra- and extraorganizational networking was neglected, limiting the potential of the pertaining study results for explaining our finding of Chinese employees' low engagement in extraorganizational networking. We nevertheless consider Kim's (2013) methodology, perhaps complemented by (1) quantitative efforts, (2) a rigorous cross-cultural approach, and (3) a complete (rather than abridged) multifaceted conceptualization of networking behavior, to be a promising avenue for future research.

Conclusion

Our study of white-collar workers employed by the same MNC in Germany and China indicated that the functional but not necessarily the structural facet of a consensual

multidimensional conceptualization of networking behavior was applicable in a Chinese context. Specifically, the distinction between multiple functional dimensions of networking (i.e., building, maintaining, and using informal professional relationships) was cross-culturally applicable, whereas the irrelevance of extraorganizational networking behaviors for predicting objective career success in China suggests cultural differences in the impact of networking behavior. A complex pattern of differential predictive power of networking subdimensions for salary and promotions emerged within and between cultural groups. A key cross-cultural finding was the greater magnitude of relative effect sizes observed for intraorganizational networking (i.e., the using and building dimensions) in China compared to Germany. We hope to stimulate future inquiry into the cultural, temporal, and contextual boundary conditions of the dimensionality and consequences of networking behavior.

References

Banville, D., Desrosiers, P., & Genet-Volet, Y. (2000). Translating questionnaires and

inventories using a cross-cultural translation technique. *Journal of Teaching in Physical Education*, *19*(3), 374–387.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606.

Bozionelos, N., & Wang, L. (2006). The relationship of mentoring and network resources with career success in the Chinese organizational environment. *The International Journal of Human Resource Management*, *17*(9), 1531–1546. doi:10.1080/09585190600878345

Bian, Y., Huang, X., & Zhang, L. (2015). Information and favoritism: The network effect on wage income in China. *Social Networks*, *40*, 129–138. doi:10.1016/j.socnet.2014.09.003

Blickle, G., Witzki, A. H., & Schneider, P. B. (2009). Self-initiated mentoring and career success: A predictive field study. *Journal of Vocational Behavior, 74*, 94-101. doi: 10.1016/j.jvb.2008.10.008

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology*, *110*(2), 349–399. doi:10.1086/421787

Bryant, F. B., & Satorra, A. (2012). Principles and practice of scaled difference chi-square testing. *Structural Equation Modeling*, *19*(3), 372–398. doi:10.1080/10705511.2012.687671

Byrne, B. M. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York, NY: Routledge.

Cheung, G. W., & Rensvold, R. B. (1999). Testing factorial invariance across groups: A

reconceptualization and proposed new method. *Journal of Management*, *25*(1), 1–27.

doi:10.1177/014920639902500101

Cheung, Y. H., Dougherty, T. W., & Herndon, N. C. (2011). *Personality, networking*

behaviors and network resources of employees in the U.S. and Hong Kong. Paper

presented at the Academy of Management Conference, San Antonio, TX.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of*

Sociology, 94 (Suppl.), S95-S120.

Forret, M. L., & Dougherty, T. W. (2001). Correlates of networking behavior for managerial

and professional employees. *Group & Organization Management*, *26*(3), 283–311.

doi:10.1177/1059601101263004

 Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior.

Annual Review of Psychology, *58*, 479–514.

doi:10.1146/annurev.psych.58.110405.085559

Gervorkian, M. (2011). *Networking as a mediator between proactive personality,*

performance perceptions, and career success. Unpublished Dissertation. San Diego,

CA, Alliant International University.

Gibson, C., III, J. H., & Buckley, M. R. (2014). Understanding the role of networking in

organizations. *The Career Development International*, *19*(2), 146–161.

doi:10.1108/CDI-09-2013-0111

Gong, Y., & Chang, S. (2008). Institutional antecedents and performance consequences of

employment security and career advancement practices: Evidence from the People's

Republic of China. *Human Resource Management*, *47*(1), 33–48.

Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of*

Organizational Behavior, *26*(2), 113–136. doi:10.1002/job.270

Hofstede, G. H. (2003). *Culture's consequences* (2nd ed.). Thousand Oaks, CA: Sage.

Johnson, J. W. (2004). Factors affecting relative weights: The influence of sampling and measurement error. *Organizational Research Methods*, *7*(3), 283–299. doi:10.1177/1094428104266018

Kim, S. (2013). Networking enablers, constraints and dynamics: A qualitative analysis. *The Career Development International*, *18*(2), 120–138. doi:10.1108/CDI-04-2012-0051

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY, US: Guilford Press.

Kraimer, M. L., Seibert, S. E., & Astrove, S. L. (2015). Consequences of high LMX: Career mobility and success. In T. N. Bauer & B. Erdogan (Eds.), *Oxford handbook of leader–member exchange*. Oxford, England: Oxford University Press.

Kram, K. E. (1985). *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott Foresman.

Laud, R. L., & Johnson, M. (2012). Upward mobility: A typology of tactics and strategies for career advancement. *The Career Development International*, *17*(3), 231–254. doi:10.1108/13620431211241072

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, *60*(4), 557–568. doi:10.1037/a003344

Leung, K., & Bond, M. H. (1984). The impact of cultural collectivism on reward allocation. *Journal of Personality and Social Psychology, 47*, 793-804.

Leung, K., & Iwawaki, S. (1988). Cultural collectivism and distributive behavior. *Journal of Cross-Cultural Psychology, 19*, 35-49.

Little, T. D., Preacher, K. J., Selig, J. P., & Card, N. A. (2007). New developments in latent

variable panel analyses of longitudinal data. *International Journal of Behavioral

Development*, *31*(4), 357–365. doi:10.1177/0165025407077757

Lu, L., Leung, K., & Koch, P. T. (2006). Managerial knowledge sharing: The role of

individual, interpersonal, and organizational factors. *Management and Organization

Review, 2*, 15-41.

McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. (2007). Employability during

unemployment: Adaptability, career identity and human and social capital. *Journal of

Vocational Behavior*, *71*(2), 247–264. doi:10.1016/j.jvb.2007.06.003

McCallum, S. Y., Forret, M. L., & Wolff, H. (2014). Internal and external networking

behavior: An investigation of relationships with affective, continuance, and normative

commitment. *The Career Development International*, *19*(5), 595–614.

doi:10.1108/CDI-08-2013-0101

Milfont, T. L., & Fischer, R. (2010). Testing measurement invariance across groups:

Applications in cross-cultural research. *International Journal of Psychological

Research, 3*(1), 111–121.

Muthén, L. K. & Muthén, B. O. (2015). *Mplus user's guide* (7th ed.). Los Angeles, CA:

Muthén & Muthén.

Ng, T. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and

subjective career success. A meta-analysis. *Personnel Psychology*, *58*(2), 367–408.

doi:10.1111/j.1744-6570.2005.00515.x

Porter, C. M., & Woo, S. E. (2015). Untangling the networking phenomenon: A dynamic

psychological perspective on how and why people network. *Journal of Management*,

41(5), 1477–1500. doi:10.1177/0149206315582247

Ng, T. W. H., & Feldman, D. C. (2014). A conservation of resources perspective on career hurdles and salary attainment. *Journal of Vocational Behavior*, *85*, 156-168. doi: http://dx.doi.org/10.1016/j.jvb.2014.05.008

Rasdi, R. M., Garavan, T. N., & Ismail, M. (2013). Networking behaviours and managers' career success in the Malaysian public service: The moderating effect of gender. *Personnel Review*, *42*(6), 684–703. doi:10.1108/PR-07-2010-0117

Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, *66*(4), 507–514. doi:10.1007/BF02296192

Shiraev, E. B., & Levy, D. A. (2013). *Cross-cultural psychology: Critical thinking and contemporary applications* (5th ed.). Boston: Pearson.

Steinmetz, H., Schmidt, P., Tina-Booh, A., Wieczorek, S., & Schwartz, S. H. (2009). Testing measurement invariance using multigroup CFA: Differences between educational groups in human values measurement. *Quality & Quantity: International Journal of Methodology*, *43*(4), 599-616. doi:10.1007/s11135-007-9143-x

Tonidandel, S., & LeBreton, J. M. (2011). Relative importance analysis: A useful supplement to regression analysis. *Journal of Business and Psychology*, *26*(1), 1–9. doi:10.1007/s10869-010-9204-3

Tonidandel, S., & LeBreton, J. M. (2015). RWA Web: A free, comprehensive, web-based, and user-friendly tool for relative weight analyses. *Journal of Business and Psychology*, *30*(2), 207–216. doi:10.1007/s10869-014-9351-z

Tonidandel, S., LeBreton, J. M., & Johnson, J. W. (2009). Determining the statistical significance of relative weights. *Psychological Methods*, *14*(4), 387–399. doi:10.1037/a0017735

Tu, H. S., Forret, M. L., & Sullivan, S. E. (2006). Careers in a non-Western context: An exploratory empirical investigation of factors related to the career success of Chinese

managers. *The Career Development International*, *11*(7), 580–593.

doi:10.1108/13620430610713454

Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction,

reliability, and measurement equivalence across 13 countries. *Journal of Vocational*

Behavior, *80*(3), 661–673. doi:10.1016/j.jvb.2012.01.011

Smith, P. B., Peterson, M. F., & Schwartz, S. H. (2002). Cultural values, sources of guidance,

and their relevance to managerial behavior. *Journal of Cross-Cultural Psychology, 33*,

188-208.

Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement

invariance literature: Suggestions, practices, and recommendations for organizational

research. *Organizational Research Methods*, *3*(1), 4–69.

doi:10.1177/109442810031002

Volmer, J., & Wolff, H.-G. (2016). The short-term consequences of networking: A daily

diary study. *Manuscript submitted for publication.*

Widaman, K. F., Ferrer, E., & Conger, R. D. (2010). Factorial invariance within longitudinal

structural equation models: Measuring the same construct across time. *Child*

Development Perspectives, *4*(1), 10–18. doi:10.1111/j.1750-8606.2009.00110.x

Wok, S., & Hashim, J. (2014). Communication networks, organizational contacts and

communication power in grooming professionals for career success. *Malaysian*

Journal of Communication, *30*, 219–242.

Wolff, H.-G., & Kim, S. (2012). The relationship between networking behaviors and the Big

Five personality dimensions. *The Career Development International*, *17*(1), 43–66.

doi:10.1108/13620431211201328

Wolff, H.-G., & Moser, K. (2006). Entwicklung und Validierung einer Networkingskala [Development and validation of a networking scale]. *Diagnostica*, *52*(4), 161–180. doi:10.1026/0012-1924.52.4.161

Wolff, H.-G., & Moser, K. (2009). Effects of networking on career success: A longitudinal study. *Journal of Applied Psychology*, *94*(1), 196–206. doi:10.1037/a0013350

Wolff, H.-G., & Moser, K. (2010). Do specific types of networking predict specific mobility outcomes? A two-year prospective study. *Journal of Vocational Behavior*, *77*(2), 238–245. doi:10.1016/j.jvb.2010.03.001

Wolff, H.-G., Moser, K., & Grau, A. (2008). Networking: Theoretical foundations and construct validity. In J. Deller (Ed.), *Readings in applied organizational behavior from the Lüneburg symposium – Personality at work* (pp. 101–118). Mering, Germany: Rainer Hampp.

Wolff, H.-G., Schneider-Rahm, C. I., & Forret, M. L. (2011). Adaptation of a German Multidimensional Networking Scale into English. *European Journal of Psychological Assessment*, *27*(4), 244–250. doi:10.1027/1015-5759/a000070

Table 1

Means, Standard Deviations, and Intercorrelations of Study Variables in the German Sample

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	44.70	11.28	—											
2. Sex[a]	1.62	0.49	.23*	—										
3. Education[b]	4.26	1.02	−.16	.30**	—									
4. Organizational tenure	14.26	10.50	.56**	.20*	−.13	—								
5. Building internal contacts	2.36	0.50	.03	.17	.24*	−.05	(.75)							
6. Maintaining internal contacts	2.63	0.48	.28**	.28**	.25*	.06	.30**	(.79)						
7. Using internal contacts	2.38	0.49	−.03	.18	.26**	−.07	.20*	.50**	(.80)					
8. Building external contacts	2.15	0.66	.23*	.37**	.29**	.22*	.38**	.42**	.46**	(.88)				
9. Maintaining external contacts	2.14	0.64	.27**	.37**	.25*	.22*	29**	.47**	.55**	.70**	(.88)			
10. Using external contacts	2.09	0.79	.20*	.26**	.15	.18	.26**	.41**	.52**	.63**	.77**	(.93)		
11. Salary	7.12	0.74	.38**	.46**	.35**	.30**	.18	.43**	.23*	.48**	.53**	.49**	—	
12. Promotions	3.78	2.58	.44**	.38**	.08	.36**	.29**	.31**	.20*	.50**	.54**	.43**	.61**	—

Note. N = 106.

[a]Sex is coded as 1 = *female*, 2 = *male*. [b]Education is coded as 1 = *none*, 2 = *high school or equivalent*, 3 = *vocational/technical secondary school/Zhongzhuan*, 4 = *some college*, 5 = *university degree*, 6 = *doctoral degree*.

*p < .05. **p < .01.

Table 2

Means, Standard Deviations, and Intercorrelations of Study Variables in the Chinese Sample

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	37.2	6.82	—											
2. Sex[a]	1.43	0.50	.07	—										
3. Education[b]	4.75	0.46	.21	.22*	—									
4. Organizational tenure	10.05	6.22	.77**	.03	.17	—								
5. Building internal contacts	2.62	0.56	.32**	.06	.10	.34**	(.84)							
6. Maintaining internal contacts	2.84	0.54	.32**	.03	.15	.32**	.75**	(.85)						
7. Using internal contacts	2.68	0.66	.29**	.01	.14	.36**	.60**	.69**	(.89)					
8. Building external contacts	1.88	0.44	−.02	.19	.13	.03	.18	.09	.12	(.81)				
9. Maintaining external contacts	1.74	0.42	−.03	.17	.01	.05	.14	.18	.25*	.65**	(.80)			
10. Using external contacts	1.72	0.45	−.03	−.01	.09	.01	−.06	.06	.16	.53**	.67**	(.83)		
11. Salary	4.06	2.31	.50**	.14*	.13	.52**	.65**	.57**	.55**	.06	.04	−.09	—	
12. Promotions	2.40	1.79	.47**	.05	.02	.54**	.55**	.50**	.62**	.02	.14	−.02	.76**	—

Note. N = 83. NW = networking behavior.

[a]Sex is coded as 1 = *female*, 2 = *male*. [b]Education is coded as 1 = *none*, 2 = *high school or equivalent*, 3 = *vocational/technical secondary school/Zhongzhuan*, 4 = *some college*, 5 = *university degree*, 6 = *doctoral degree*.

p < .05. **p* < .01.

Table 3

Fit of Latent Measurement Models to Assess Dimensionality of Networking Behavior in Germany and China

CFA models by sample	SB-χ^2	*df*	CFI	TLI	RMSEA
German sample					
One-factor model	635.08	189	.69	.66	.143
Two-factor model[a] (internal, external)	525.82	188	.77	.74	.125
Three-factor model[a] (building, maintaining, using)	464.08	186	.81	.79	.113
Five-factor model[b]	259.26	164	.92	.90	.078
Six-factor model[a]	227.32	174	.97	.96	.049
Chinese sample					
One-factor model	767.28	189	.48	.42	.186
Two-factor model[a] (internal, external)	432.12	188	.78	.76	.121
Three-factor model[a] (building, maintaining, using)	668.03	186	.57	.52	.170
Five-factor model[b]	265.40	164	.90	.87	.089
Six-factor model[a]	260.58	174	.92	.90	.077

Note. N_{German} = 106; $N_{Chinese}$ = 83. All SB-χ^2 values were significant at p < .05. SB-χ^2 = Satorra–Bentler scaled chi-square; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; NW = networking behavior.

[a]Latent factors were correlated. [b]The five-factor model incorporated the following latent dimensions: internal and external NW (i.e, two factors reflecting the structural facet of networking), and building, maintaining, and using contacts (i.e., three factors reflecting the functional facet of networking); factors were allowed to correlate within facets (e.g., internal and external NW were correlated), but not between facets (e.g., using contacts was neither correlated with internal and external NW). Thus, this model incorporated double-loadings for each NW indicator.

Table 4

Fit of Multigroup Measurement Models to Test Cross-Cultural Measurement Invariance of Networking Behavior

Model	SB-χ^2	*df*	CFI	TLI	RMSEA (90% CI)	ΔSB-χ^2	Δ*df*
Configural model	477.83***	348	.95	.93	.063 [.048, .076]	–	–
Metric model	488.16***	363	.95	.94	.060 [.046, .074]	11.16	15
Full scalar model	616.24***	384	.90	.89	.080 [.068, .092]	132.61***	21
Partial scalar model[a]	565.40***	381	.92	.92	.072 [.059, .084]	80.53***	18

Note. N_{German} = 106; $N_{Chinese}$ = 83. SB-χ^2 = Satorra–Bentler scaled chi-square; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; CI = confidence interval.

[a]The partial scalar model was compared against the metric model; it incorporated relaxed equality constraints on three indicator intercepts in both groups.

***p < .001.

Table 5

Multigroup Path Analysis Predicting German and Chinese Individuals' Objective Career Success from Dimensions of Networking Behavior

Predictor	German group		Chinese group	
	Salary	Promotions	Salary	Promotions
Control variables				
Age	.17* (0.08)	.22* (0.10)	.16 (0.11)	.11 (0.11)
Sex	.19* (0.08)	.14 (0.09)	.10 (0.08)	.04 (0.08)
Education	.26** (0.09)	−.05 (0.12)	−.03 (0.06)	−.11 (0.08)
Organizational tenure	.09 (0.08)	.11 (0.11)	.18 (0.11)	.26* (0.11)
Networking behavior				
Building internal contacts	−.05 (0.07)	.15* (0.07)	.38*** (0.10)	.25* (0.12)
Maintaining internal contacts	.16 (0.10)	.00 (0.08)	.04 (0.10)	−.08 (0.12)
Using internal contacts	−.15 (0.10)	−.07 (0.10)	.22* (0.11)	.41*** (0.11)
Building external contacts	.04 (0.10)	.14 (0.15)	.02 (0.10)	−.10 (0.11)
Maintaining external contacts	.14 (0.14)	.32* (0.14)	−.06 (0.13)	.12 (0.12)
Using external contacts	.25* (0.12)	.01 (0.11)	−.06 (0.11)	−.08 (0.12)
R^2	.51***	.45***	.58***	56***
n	106		83	

Note. Standardized robust maximum likelihood parameter estimates. Standard errors appear in parentheses. All estimates result from a single (multivariate, multigroup) path-analytic model with observed variables.

*p < .05. ***p < .001

Table 6

Results From Relative Weight Analyses Predicting Salary in the German and Chinese Sample

Predictor variable	German sample				Chinese sample			
	Relative weight		Regular CI	Statistical significance CI[a]	Relative weight		Regular CI	Statistical significance CI[a]
	Raw	Rescaled			Raw	Rescaled		
Age	.059*	11.63%	[0.02, 0.12]	[0.01, 0.13]	.086*	14.95%	[0.03, 0.18]	[0.02, 0.20]
Sex	.080*	15.89%	[0.02, 0.16]	[0.02, 0.17]	.012	2.10%	[0.00, 0.06]	[−0.01, 0.09]
Education	.071*	14.14%	[0.01, 0.16]	[0.01, 0.17]	.003	0.47%	[0.00, 0.01]	[−0.02, 0.03]
Tenure	.036	7.04%	[0.01, 0.09]	[−0.00, 0.11]	.093*	16.24%	[0.04, 0.16]	[0.03, 0.17]
Building internal contacts	.010	1.04%	[0.00, 0.01]	[−0.02, 0.03]	.172*	29.96%	[0.10, 0.26]	[0.10, 0.27]
Maintaining internal contacts	.054*	10.67%	[0.01, 0.13]	[0.01, 0.15]	.094*	16.39%	[0.05, 0.14]	[0.05, 0.16]
Using internal contacts	.012	2.35%	[0.00, 0.02]	[−0.02, 0.03]	.100*	17.37%	[0.03, 0.18]	[0.04, 0.19]
Building external contacts	.046*	9.09%	[0.02, 0.09]	[0.01, 0.10]	.003	0.54%	[0.00, 0.00]	[−0.03, 0.04]
Maintaining external contacts	.067*	13.29%	[0.03, 0.12]	[0.02, 0.13]	.003	0.56%	[0.00, 0.00]	[−0.03, 0.02]
Using external contacts	.075*	14.86%	[0.03, 0.14]	[0.02, 0.15]	.008	1.42%	[0.00, 0.03]	[−0.02, 0.06]
R^2			0.51				0.57	

Note. CI = 95% confidence interval. Rescaled relative weights indicate the relative contribution of each individual predictor variable to the total R^2 (in %).

[a]To evaluate the statistical significance of relative weights, CIs were estimated following the approach described by Tonidandel, LeBreton, and Johnson (2009). A weight is considered significant, if this particular CI excludes zero.

*Asterisked relative weights are statistically significant from zero (i.e., the statistical significance CI estimated for the respective relative weight excludes zero).

Table 7

Results From Relative Weight Analyses Predicting Promotions in the German and Chinese Sample

Predictor variable	German sample				Chinese sample			
	Relative weight		Regular CI	Statistical significance CI[a]	Relative weight		Regular CI	Statistical significance CI[a]
	Raw	Rescaled			Raw	Rescaled		
Age	.083*	18.40%	[0.03, 0.16]	[0.03, 0.17]	.075*	14.01%	[0.03, 0.15]	[0.02, 0.16]
Sex	.049	10.89%	[0.01, 0.12]	[0.00, 0.13]	.001	0.28%	[0.00, 0.00]	[−0.02, 0.04]
Education	.004	0.92%	[0.00, 0.00]	[−0.04, 0.03]	.006	1.11%	[0.00, 0.03]	[−0.01, 0.07]
Tenure	.050	11.18%	[0.01, 0.14]	[0.00, 0.15]	.119*	22.10%	[0.05, 0.21]	[0.05, 0.22]
Building internal contacts	.036	8.04%	[0.01, 0.10]	[0.00, 0.12]	.108*	20.15%	[0.04, 0.19]	[0.04, 0.20]
Maintaining internal contacts	.018	4.10%	[0.01, 0.05]	[−0.00, 0.07]	.065*	12.04%	[0.02, 0.11]	[0.02, 0.13]
Using internal contacts	.010	2.25%	[0.00, 0.02]	[−0.01, 0.03]	.142*	26.39%	[0.06, 0.25]	[0.06, 0.26]
Building external contacts	.065*	14.49%	[0.02, 0.16]	[0.02, 0.17]	.005	0.84%	[0.00, 0.01]	[−0.02, 0.04]
Maintaining external contacts	.090*	20.02%	[0.04, 0.17]	[0.04, 0.17]	.012	2.15%	[0.00, 0.04]	[−0.01, 0.06]
Using external contacts	.044*	9.72%	[0.02, 0.08]	[0.01, 0.09]	.005	0.93%	[0.00, 0.01]	[−0.02, 0.05]
R^2			0.45				0.54	

Note. CI = 95% confidence intervals. Rescaled relative weights indicate the relative contribution of each individual predictor variable to the total R^2 (in %).

[a]To evaluate the statistical significance of relative weights, CIs were estimated following the approach described by Tonidandel, LeBreton, and Johnson (2009). A weight is considered significant, if this particular CI excludes zero.

*Asterisked relative weights are statistically significant from zero (i.e., the statistical significance CI estimated for the respective relative weight excludes zero).