

Transnational social capital: A conceptualization and research instrument

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International Journal of Cross Cultural Management, 13(3): 319-338.

Cite as follows: Levy, O., Peiperl, M., & Bouquet, C. (2013). Transnational social capital: A conceptualization and research instrument. *International Journal of Cross Cultural Management*, 13(3): 319-338.

Abstract

In this study, we introduce a conceptual framework for transnational social capital as a higher-order multidimensional construct. Consistent with this view, we develop and validate an 11-item scale aimed at measuring bridging and bonding social capital embedded within a cross-border network of professional relations and ties. Data from several exploratory and confirmatory studies of executives and MBA students show reliability and construct validity. This research instrument provides researchers with a valuable resource for assessing transnational social capital of individuals and exploring its implications.

Keywords

Transnational social capital, bridging and bonding, global careers

Introduction

Social capital has long been recognized as a significant resource, affecting a wide range of individual outcomes such as career mobility (Burt, 1997; Podolny and Baron, 1997; Seidel, Polzer and Stewart, 2000; Seibert, Kraimer and Liden, 2001), employment (De Graaf and Flap, 1988; Fernandez, Castilla and Moore, 2000) and performance (Sparrowe et al., 2001; Mehra, Kilduff and Brass, 2001). However, over the past two decades, a growing number of skilled individuals work across borders, both virtually and physically (Peiperl and Jonsen, 2007; Solimano, 2008; Vertovec, 2002; see also OECD, 2008), and thereby develop professional ties that span national and cultural boundaries. Thus, social capital is becoming more and more transnational as connections, interactions and transactions span national borders.

For instance, professionals pursuing global careers develop both ‘weak’ and ‘strong’ ties across geographic and cultural boundaries (Berthoin Antal, 2000; Suutari and Makela, 2007; Jokinen, Brewster and Suutari, 2008; Dickmann and Doherty, 2008; Makela and Suutari, 2009; Jokinen, 2010) and use cross-border networks to find information about overseas employment opportunities and connect with potential employers (Meyer, 2001). Key employees in multinational corporations (MNCs) solidify relationships across the firm’s global network and with important categories of customers and business partners in a wide range of foreign locations – relationships that enhance coordination, collaboration and knowledge sharing within the firm and contribute to the firm’s global success (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998; Kostova and Roth, 2003; Griffith and Harvey, 2004; Taylor, 2007; Makela, 2007; Reiche, Harzing and Kraimer, 2008). Finally, entrepreneurs use their international social capital to access and mobilize resources to promote rapid internationalization of their firm (McDougall, Shane and Oviatt, 1994; Autio, Sapienza and Arenius, 2005; Prashantham and Dhanaraj, 2010).

Thus, as the business environment becomes increasingly global and complex, it is often critical for individuals to develop *transnational social capital*, defined as the actual and potential resources embedded within, available through and derived from a network of professional relationships and ties that span national borders (Nahapiet and Ghoshal, 1998).¹ Drawing on social capital theory, we view transnational social capital as a multidimensional construct because the different types of professional relations often give rise to largely distinct forms of social capital (Adler and Kwon, 2002). Of all the dimensions along which social capital may vary, the most important distinction is between bridging and bonding forms (Putnam, 2000). Bridging social capital is the actual and potential resources embedded within a network of ‘weak ties’ that individuals develop through their employment contracts, professional interests or interactions with organizations that are global in scope. Such ties are often used to gain access to career- and business-related resources, information and support (Granovetter, 1973; Lin, 1999; Seibert, Kraimer and Liden, 2001; Chua, Ingram and Morris, 2008). On the other hand, bonding social capital is embedded within a network of ‘strong ties’ or friendships with other professionals, co-workers, former classmates and colleagues. These professional ties that are more personal and social in nature provide a reliable access to valuable resources such as emotional and social support, help and high-quality or proprietary information (Granovetter, 1973; Krackhardt, 1994; Bian, 1997).

Despite the growing prevalence of cross-border social relations and the significance of these ties to both individuals and organizations, there is surprisingly little conceptual and empirical work on transnational social capital (Makela and Suutari, 2009). Empirical studies have either relied on interviews with fairly small and homogeneous samples (e.g. Dickmann and Doherty, 2008; Jokenin, 2010) or used international experience as a proxy for transnational social capital (e.g. Shrader, Oviatt and McDougall, 2000; McDougal, Oviatt and Shrader, 2003). However, such experience does not systematically correlate with

transnational social capital because of the difficulties associated with creating and maintaining social relations across national and cultural boundaries (Taylor, 2007). Consequently, our understanding of why levels of transnational social capital vary across individuals, even when they have relatively similar levels of international experience, is rather limited. Furthermore, noticeably absent from the literature are studies that systematically examine transnational social capital and the value it may generate to both individuals and their firms. For example, while transnational social capital is considered a key global competency, we know relatively little about whether it fosters the development of other global competencies such as global mindset (Osland, Bird and Mendenhall, 2012) or whether global firms can benefit from their employees' transnational social capital (Lazarova and Taylor, 2009).

These observations suggest that previous research has not adequately captured the properties of transnational social capital across a diverse set of individuals and professional contexts. We believe that social capital in an international context is better explained by examining a broader set of professional relations and ties conducive to forming bridging and bonding capital across national borders. Consistent with this view, we conceptualize transnational social capital as a higher-order multidimensional construct, with bridging and bonding forms of social capital each constituting a distinct, yet complementary dimension. Specifically, we introduce and validate a scale that articulates and measures the bridging and bonding capital that individuals develop through their cross-border professional relations and contacts.

The paper is structured as follows: First, we review the current state of research on social capital in the international context. Second, we describe our operational approach to measuring transnational social capital. We then present the methods used to develop and

validate the transnational social capital scale. Finally, we discuss our findings, their limitations and implications for further research and practice.

Transnational social capital of individuals

The concept of social capital generally represents those resources available to social actors through their membership in social networks and links with other social actors (Portes, 1998). In the professional domain, transnational social capital is those resources – real or virtual – that an individual (or a social unit) derives from networks of professional relations and contacts that span the boundaries of two or more national societies. In addition to friendships with co-workers, classmates and colleagues, these may include more formal networks based on employment, professional interests or engagement in various communities of practice. Thus, transnational social capital is embedded in a variety of transnational professional relations that are used to gain access to a wide-range of tangible and intangible resources.

The first benefit of extensive cross-border networks is the ability to gain access to more information and knowledge that can help in identifying new business and employment opportunities (Oviatt and McDougall, 1997; Ellis, 2000; Shrader, Oviatt and McDougall, 2000; Meyer, 2001; McDougall, Oviatt and Shrader, 2003). For example, Makela and Suutari (2009) reported that Finnish managers who expand their networks of professional contacts during overseas assignments accrue significant information benefits such as more diverse information and quicker access to information. Wong and Salaaf (1998) found that skilled professionals use international networks of colleagues, fellow alumni and organizations to gain access to information and overseas employment opportunities. Ellis and Pecotich (2001) show that exporters learn about foreign opportunities through their existing network of ‘cosmopolitan ties,’ which in turn, influence their export activities and outcomes.

Beyond such information benefits, transnational social capital facilitates individuals' and firms' access to more scarce or proprietary resources such as knowledge, advice, help, support, referral trust by a third party and solidarity. McDougall et al. (1994) suggest that direct personal contacts of key individuals in foreign markets can be used to identify new opportunities, obtain business advice, assist in foreign negotiation and open doors in new international markets. Makela and Suutari (2009) found that weak and strong ties developed through international assignments can provide help and support on both professional and personal matters as well as affect career advancement. Makela and Maula (2008) found that the international social capital of local venture capitalists facilitates the formation of cross-border investment syndicates. Yli-Renko, Autio and Tontti (2002) report a positive association between the international contact networks of key employees and the knowledge intensity of the firm. Finally, in the context of MNCs, the cross-border social capital of key employees has been linked with enhanced coordination, cooperation and knowledge sharing within the firm's global network (Tsai and Ghoshal, 1998; Kostova and Roth, 2003; Griffith and Harvey, 2004; Inkpen and Tsang, 2005; Taylor, 2007).

While the benefits of transnational social capital are widely recognized, its antecedents are relatively understudied (Payne et al., 2011). Kostova and Roth (2003) suggest that the quality of social capital of boundary spanners is influenced by the extent and efficacy of their interactions with headquarters representatives. Similarly, Griffith and Harvey (2004) suggest that marketing managers develop social capital through interactions with both headquarters and foreign subsidiaries. The most direct evidence is offered in the area of global careers, where research suggests that transnational social capital is developed through international assignments and relocations (Berthoin Antal, 2000; Suutari and Makela, 2007; Jokinen, Brewster and Suutari, 2008; Makela and Suutari, 2009).

With relatively few exceptions, and as noted above, the research reviewed here utilizes case study methodology and interviews to study transnational social capital, or it employs proxies (such as international experience) that do not adequately describe the theoretical properties supposed to represent this construct. The lack of quantitative studies and measurement hinders our understanding of how transnational social capital may affect individual and organizational outcomes. In the section below, we develop a research instrument that can be used in future large-scale studies.

Operational approach

We conceptualize transnational social capital as the combination of actual and potential resources embedded within cross-border networks of professional relationships and contacts. This approach reflects four important conceptual distinctions. First, it reflects the recognition that transnational social capital is a higher-order multidimensional construct because different types of professional relations give rise to largely distinct forms of social capital (Putnam, 2000; Adler and Kwon, 2002). Specifically, we view bridging and bonding social capital as two distinct forms of social capital. Second, we view bridging and bonding as *complementary* where transnational social capital emerges as the combination of these two forms of social capital. Third, the definition reflects the understanding that social capital varies by network type or social domain. Finally, this definition is concerned with perceived access to resources embedded within the network rather than the actual use of these resources. Below we discuss these conceptual distinctions and identify the critical facets of bridging and bonding social capital, which should be included in any representative, content-valid measure of transnational social capital.

Bridging and bonding social capital

Different types of professional ties have direct implications for the promotion and nature of social capital. Bridging social capital includes the actual and potential resources embedded within a network of ‘weak ties’ (low-density networks of acquaintances) or casual cross-border professional relations. Weak ties tend to be extensive and diverse, serving as a bridge between otherwise disconnected networks. They provide access to new and non-redundant information from disparate parts of the network (Granovetter, 1973; Burt, 1992) and often facilitate broad identities and generalized reciprocity among members (Putnam, 2000). Such ties are often used to gain access to career- and business-related resources, information and support (Granovetter, 1973; Lin, 1999; Seibert, Kraimer and Liden, 2001; Chua, Ingram and Morris, 2008). The foregoing discussion suggests that there are three critical facets of bridging social capital that should be included in the measure.

1. *Extensivity*. Bridging social capital tends to be embedded within extensive and diverse networks of casual or ‘weak’ relations. Therefore, items were designed to capture whether an individual has an extensive network of cross-border professional relations and ties. For example, the item ‘I have an extensive network of professional contacts in other countries’ captures this facet.
2. *Access to information*. This is considered the defining characteristic of bridging social capital (Putnam, 2000; Granovetter, 1973). Items were designed to capture whether an individual can access his or her cross-border professional network to find information. For example, the ‘It is easy for me to access my professional network in other countries to find information’ conveys this facet.
3. *Generalized reciprocity and broad identity*. Bridging social capital is embedded within more inclusive and outward-oriented networks and tends to facilitate generalized

reciprocity between members and the formation of broad identity (Putnam, 2000; Coleman, 1990). Therefore, items were designed to capture whether an individual, who views himself or herself as part of an international professional community, is willing to support the community without expecting an immediate return. For example, the item ‘I spend time supporting international professional activities’ reflects this facet.

Bonding social capital includes the actual and potential resources embedded within a network of professional-related friendships with co-workers, classmates and colleagues. These ‘strong ties’ are typically characterized by trust, intimacy and reciprocity built over time (Granovetter, 1973; Krackhardt, 1992). They provide emotional and social support and reliable access to valuable resources such as help and high-quality or proprietary information (Granovetter, 1973; Krackhardt, 1994; Bian, 1997). Thus, bonding social capital is characterized by the following three critical facets, which are included in the measure:

1. *Emotional and psychological support.* Bonding social capital provides crucial emotional and social support and is ‘good for undergirding specific reciprocity’ (Putnam, 2000: 22). Items were designed to capture whether an individual seeks emotional support and advice at critical career-related junctures. For example, the item ‘If I were at a career crossroads, there are several professional contacts in other countries I could talk to about it’ reflects this facet.
2. *Trust.* Bonding relations are typically characterized by trust (Putnam, 2000; Coleman, 1990) and therefore we included the following item: ‘I trust several of my professional contacts in other countries to act in my best interests.’
3. *Access to limited or valuable resources.* Bonding social capital provides access to valuable or limited resources. In the context of professional relations, such resources

could provide help, assistance in a job search and access to important people or organizations. For example the item ‘Some of my professional contacts in other countries would make a significant effort to help me find a new job’ reflects this theme.

There are two main conceptual distinctions between bridging and bonding social capital. First, bonding social capital tends to be exclusive and undergird specific reciprocity between those with whom close ties are maintained whereas bridging tends to be inclusive and facilitate generalized reciprocity. Second, bonding relations have an affective component (Krackhardt, 1994), whereas bridging relations are more instrumental (Burt, 1992).

Complementarities between bridging and bonding

We view bridging and bonding social capital as complementary because the wide range of relationships associated with bridging and the strength of relationships associated with bonding provide access to different yet complementary resources (Collins and Clark, 2003; Tiwana, 2008; Patel and Terjesen, 2011; Simon and Tellier, 2011). Furthermore, synergistic effects between bridging and bonding can arise because having more of one form of social capital can increase the returns of the other form (Tiwana, 2008). In particular, the presence of strong ties can enhance the returns on bridging social capital; alternatively, the resources associated with bridging ties can be used for the benefit of those with whom strong ties are maintained (Galunic, Ertug and Gargiulo, 2012). In the context of alliances, for example, Tiwana (2008) found that strong ties provide mechanisms to integrate a diverse, novel knowledge that is made accessible by bridging ties. Similarly, Patel and Terjesen (2011) showed in their study of transnational entrepreneurship that a wide range of relations facilitates access to a broad set of knowledge and resources, but these resources can only be activated in the presence of strong ties. Therefore, we conceptualize transnational social

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capital as the complementary combination of bridging and bonding and consider them simultaneously (Adler and Kwon 2002; Patulny and Svendsen 2007). Statistically, we use the multiplicative term between the bridging and bonding sub-scales to capture these synergistic effects in our measurement of transnational social capital (see below).

Contextual approach to social capital

We view social capital as a construct that varies by network type or social context. Thus, the specific manifestations of bridging and bonding, as well as the outcomes associated with each, may be influenced by the type of network and therefore vary from one context to another (Stone and Hughes, 2002). Therefore, we adopt a contextual approach to operationalizing transnational social capital and measure bridging and bonding embedded within cross-border networks of professional ties. The measure thus does not assess the overall stock of transnational social capital across social realms or the overall stock of professional social capital across both domestic and transnational settings. Nor, conversely, does it measure transnational social capital within a single organizational setting such as a multinational corporation.

Access to resources

We operationalize transnational social capital primarily in terms of *perceived access* to resources associated with bonding social capital rather than their actual *use* (Lin, 1999; Van Der Gaag and Snijders, 2004). This approach taps into tacit social resources that are inherent in social relations or embedded in networks—resources that are largely invisible to outsiders but could be mobilized by an individual should he or she wish. Hence, the measure developed herein assesses perceived transnational social capital embedded in cross-border professional networks, rather than actual social capital.

Methods

Scale development

To begin operationalizing transnational social capital at the individual level, we conducted an extensive review of existing literature and consulted the vast methodological literature on individual-level measures of social capital (for reviews see Lin, 1999; Van Der Gaag and Snijders, 2004, Van Der Gaag and Snijders, 2005; Yang, 2007).² We then generated a pool of 24 items that could be used as potential measures of transnational social capital (DeVellis, 2003). Drawing on the foregoing conceptual discussion that delineated the content domain of bridging and bonding social capital, we generated 13 bridging items and 11 bonding items that reflect each of the critical facets of bridging and bonding (see Appendix). In generating the items, we took particular care to ensure that the items capture the domain of interest and reflect bridging and bonding resources that are relevant in a professional context. We also made an effort to ensure that the transnational aspect of professional relations was expressed in relatively unambiguous terms. Therefore, we chose to use the phrase ‘in other countries’ to denote transnational contacts and activities. The survey was administered in English, as English is the common language used by respondents.

We tested and validated the scale with two samples drawn from a population of executives and MBA students who participated in programs or studied at a private, globally top-ranked business school in Switzerland. These populations were particularly suitable for the development of the instrument because most individuals would typically have accumulated international experience as well as opportunities to develop transnational social capital. Moreover, both MBAs and executives in our sample are likely to work (or have worked) in environments that place a premium on cross-border ties. Therefore, the individuals included in our sample are more likely to possess some level of transnational

social capital, and at the same time the range of experiences characterizing each group provides sufficient variation on the overall construct.

The scale was pre-tested with a sample of 124 executives and MBA students.³ The sample included respondents from 42 countries, thus assuring diversity of perspectives and experiences. Respondents from three countries – France (13.7%), the US (10.5%) and Italy (6.5%) — accounted for just over 30% of the subjects. Most respondents were men (72%), had a graduate degree (69%) and some type of international experience (97%). The average age of the sample's members was 36 years. The MBA students as well as the executives in the sample all had significant work experience. Sample equivalence of executives versus MBA students was examined with the Wilcoxon-Mann-Whitney U-test (Gravetter and Wallnau, 2008; Boyatzis, Stubbs and Taylor 2002; Dushnitsky Lenox, 2006) using gender, age, level of education, international work experience (across four indicators) and language skills. The samples were found to be equivalent with three exceptions: MBA students were younger, had worked for fewer years in multinational corporations, but had a larger number of work-related international relocations.

With 124 respondents, the pre-test sample had a ratio of five respondents per item, which adheres to the minimum ratio of 5:1 recommended by Gorsuch (1983). Moreover, most of the communalities were above .50, making the sample size adequate (Worthington and Whittaker, 2006). Principal Axis Factoring with Direct Oblimin rotation, which allows for related factors, was used to extract the factors (Kline, 2005). The parallel analysis pointed at a two-factor solution, while the scree plot criterion suggested retaining three factors. The three factors were found meaningful, consisting of a bridging factor, a bonding factor and a reverse-scored items factor. As a first step toward scale refinement, we eliminated the reverse-scored items in order to prevent method variance associated with item wording.⁴

Next, in order to refine the meaning of the remaining two-factor solution, we eliminated four bridging items: one item that loaded on the bonding factor, one item with large residuals in the reproduced correlations matrix and two items with high cross-loadings. One bonding item was eventually included in the bridging sub-scale because it loaded highly on the bridging factor with no cross-loading, thus improving the reliability of the scale. Finally, after establishing the expected bridging and bonding factors, we deleted four items with loadings lower than .55 in order to achieve a shorter, more reliable scale (Hair, et al., 2006; Tabachnick and Fidell, 2007). The final scale consisted of 11 items, 5 bridging and 6 bonding. Cronbach's alpha for bridging was .84 and for bonding, .86. The bridging and bonding factors were positively correlated ($r = .61$), indicating that Direct Oblimin rotation was the appropriate method. Table 1 presents the final scale items.

Insert Table 1 about here

Scale validation

To evaluate the validity of the two-factor solution that emerged through the exploratory analysis, we conducted a confirmatory factor analysis (CFA) on a separate sample (Worthington and Whittaker, 2006). CFA tests hypotheses about the relationships among observed variables on the basis of the hypothetical constructs they are purported to measure, thus providing a superior evaluation of construct validity (Kline, 2005). We collected a total of 229 usable surveys from executives and MBA students from the same business school in Switzerland.⁵ The sample included respondents from 58 countries; respondents from four countries – France (8.3%), Switzerland (7.9%), Germany (6.6%) and Denmark (5.2%) –

accounted for almost 30% of the subjects. Most respondents were men (83%), had a graduate degree (81%), and some type of international experience (92%). The average age of the sample's members was 42 years. Both executives and the MBA students in the sample had significant work experience. Sample equivalence of executives versus MBA students was examined with the Wilcoxon-Mann-Whitney U-test using gender, age, level of education, international work experience (across four indicators) and language skills. The samples were found to be equivalent in all of the areas examined, with two exceptions: MBA students were younger and had worked for fewer years in multinational corporations.

CFA was conducted on the 11 items retained after the exploratory analysis. For CFA, Grimm and Yarnold (1985) recommend a minimum sample size of five to ten respondents per observed variable. The model specified in the CFA contains 11 observed variables; thus, the sample size of 229 was more than adequate. We used the EQS6.1 software (Bentler, 2005) and maximum likelihood estimation method to evaluate the appropriateness of conceptualizing transnational social capital as a higher-order construct comprised, as described above, of the non-substitutable combination of two distinct yet interrelated first-order dimensions, bridging and bonding. We followed Kline's (2005: 134) recommendation in reporting a minimal set of fit indices that includes: (1) the model chi-square, which tests the overall model fit; (2) the Steiger-Lind Root Mean Square Error of Approximation (RMSEA); and (3) the Bentler Comparative Fit Index (CFI). Indicators of good fit include a non-significant chi-square, a value of .95 or above for the CFI index and a value of less than .06 for the RMSEA index (Brown, 2006; Hu and Bentler, 1998). Due to substantial multivariate kurtosis in the data (Mardia's normalized coefficient > 5) analyses were based on the Satorra-Bentler scale chi-square statistic (Satorra and Bentler, 1988) that does not require normal distribution. Post-hoc modifications for the tested models were evaluated according to the Lagrange Multiplier tests (Bentler, 2005). The hypothesized model provided

a good fit to the data as indicated by the values of fit indexes (RMSEA = .052, with a 90% confidence interval of .028 - .074, CFI = .959), although the overall chi-square remained significant (χ^2 [43, $n = 229$] = 69.40, $p < .01$).

The results of the CFA are shown in Table 2. While conceptually distinct, the bridging and bonding dimensions were highly correlated ($r = .87$, $p < .001$). Thus, these dimensions largely co-vary in approximating respondents' level of transnational social capital. To ensure discriminant validity, we compared the two-factor model to a one-factor structure, using the chi-square difference test (Bollen, 1989; Kline, 2005). The fit associated with a one-factor model (χ^2 [44, $n = 229$] = 100.56, $p < .001$, RMSEA = .075 with a 90% confidence interval of .056 - .094; CFI = .912) significantly decreased compared to the hypothesized structure of two correlated factors, as the chi-square difference of 31.16 between these two models was significant ($\Delta df = 1$, $p < .001$). The correlation between the factors was significantly less than unity, and it was also estimated to be less than the practical cut-off ($r < .90$) (Hair et al., 2006). Thus, we conclude that discriminant validity exists between the bridging and bonding dimensions.

Taken together, these analyses provide support for our conceptualization of transnational social capital as a higher-order construct comprising the non-substitutable combination of two distinct, yet highly correlated, first-order dimensions. The convergent validity of the subscales was established based on the significance of the loadings (all above .55) the composite reliabilities (above .70), and the variance extracted indices (above .50).

Insert Table 2 about here

Construct validity

Establishing the construct validity of a new scale also involves testing a nomological network of constructs – antecedents and/or outcomes – that relate to the new instrument in a consistent, theoretically predicted way (Carmines and Zeller, 1979). Statistically, when constructs are related, the correlations should be positive, whereas when they are unrelated, the correlations should be near zero. Thus, to further demonstrate construct validity, we tested the relations between the scale and a set of individual background characteristics considered antecedents of transnational social capital and which should thus be positively and significantly correlated with the scale. Using background variables has the advantage of minimizing the possibility of method bias because it involves different question formats and primarily factual data as opposed to perception data (Podsakoff et al., 2003). We considered the following three sets of background variables:

1. *International work experience.* Previous research has suggested that transnational social capital is developed through international assignments and relocations (Berthoin Antal, 2000; Suutari and Makela, 2007; Jokinen, Brewster and Suutari, 2008; Makela and Suutari, 2009) as well as through working in a multinational company (Kostova and Roth, 2003; Griffith and Harvey, 2004). Suutari and Makela (2007), for example, found that Finnish managers with multiple international work experiences expanded their networks of professional contacts during international relocations and developed bridging social capital. These contacts were developed within the organization in the assignment country as well as with senior managers at headquarters, and also spanned organizational boundaries to include customer relationships and professional and personal connections. Suutari and Makela (2007) concluded that extensive bridging social capital appears to be a distinctive element of the ‘knowing-whom’ career capital of managers with global

careers. Makela (2007) also reported that managers with expatriate experience had significantly more (overall) social capital than their domestic counterparts. Based on this research we expected transnational social capital to be positively correlated with international work experience. We measured international work experience using three variables: *number of work-related international relocations* (count); *number of work years in (any) MNC* (years); and *working in a foreign country for at least three months* (Yes/No)

2. *Living and studying abroad.* Living and studying in a foreign country can also influence the development of transnational social capital through informal transnational networks consisting of other professionals, colleagues and fellow alumni. These networks often convey information about employment opportunities, facilitate connections with potential overseas employers and provide support in various forms (Portes, 2000; Meyer, 2001). Wong and Salaaf (1998), for example, found that highly skilled professionals often have extensive and diverse transnational networks that facilitate cross-border job mobility. Therefore, we expected transnational social capital to be positively correlated with living and studying abroad, measured by two items: *living in a foreign country for at least three months* (Yes/No); and *studying abroad for one semester or more* (Yes/No).
3. *Foreign language skills.* Developing and maintaining transnational social capital requires effective intercultural communication skills. Foreign language skills can be considered a generalized communication skill that contributes to a sense of ease and efficacy in intercultural settings (Thomas and Osland, 2004). This competency contributes to effective intercultural communication and may affect the development of social relations. Thus, we expect transnational social capital to be positively correlated with foreign language skills measured as the *number of languages spoken well* (count).

To further evaluate construct validity of the scale, we combined the two samples, yielding a total of 353 respondents. Transnational social capital was measured as a multiplicative interaction between bridging and bonding, reflecting our argument that these two forms of social capital are complementary. We calculated the overall score for this construct by first calculating the score of each sub-dimension as a mean composite score and then multiplying the scores of the sub-dimensions. Higher scores obtained with this multiplicative term indicate higher levels of transnational social capital.

The construct validity correlations indicate (see Table 3) that the multiplicative transnational social capital term was positively correlated with living in a foreign country ($r = .31, p < .01$), working abroad ($r = .31, p < .01$), studying abroad ($r = .12, p < .05$), number of international relocations ($r = .36, p < .01$), number of work years in an MNC ($r = .12, p < .05$) and number of languages spoken ($r = .24, p < .01$), as expected. The bridging and bonding sub-scales were also positively correlated with living and working abroad, the number of relocations and number of languages spoken. Studying abroad was positively correlated with the bonding sub-scale, but was not correlated with the bridging sub-scale; the number of work years in an MNC was positively correlated with the bridging sub-scale, but was not correlated with the bonding sub-scale. Independent samples t-tests indicated that people who lived ($t(341) = 5.77, p < .000$), studied ($t(343) = 2.19, p < .005$), or worked abroad ($t(343) = 7.19, p < .000$) had significantly higher transnational social capital than those who did not. Independent samples t-test also indicated that there were no significant differences between MBA students and executives in transnational social capital. These theoretically-predicted results, which are consistent with previous research in the field (e.g., Berthoin Antal, 2000; Suutari and Makela, 2007; Makela, 2007), support the construct validity of the scale.

Insert Table 3 about here

Discussion

Despite considerable theoretical interest, research on transnational social capital of individuals has been relatively limited. The majority of studies have focused on small, highly selective samples using qualitative methodologies to evaluate the construct of interest. However, today an increasing number of managers and professionals cross borders to work, both physically and virtually (Peiperl and Jonsen 2007). Presumably, they develop transnational social capital through a variety of cross-border professional and personal activities; this social capital can be both ‘general’ and firm specific. The social capital thus developed differs, at the very least in its contextual basis and its complexity, from social capital developed in more local professional contexts. Furthermore, it is quite possible that managers who develop transnational social capital also have significantly more (overall) social capital (Makela, 2007).

Furthermore, the ability to create social relations in a cross-cultural setting is considered a key factor in expatriate adjustment and success (Black, Mendenhall and Oddou, 1991; Arthur and Bennett, 2006; Bhaskar-Shrinivas et al., 2005; Harrison and Shaffer, 2005) and an essential global management skill. Bird and his colleagues (Bird and Osland 2004; Bird et al., 2010), for example, have developed an index of global competencies, including boundary spanning, and creating and building trust – closely related to the bridging and bonding dimensions of transnational social capital. Moreover, transnational social capital can foster

the development of a global mindset – another critical global competency (Osland, Bird and Mendenhall, 2012; Beechler and Javidan, 2007).

Global mindset is considered a prerequisite for effective managerial action in the global environment and a source for long-term competitive advantage for transnational corporations (Bartlett and Ghoshal, 1990; Levy et al., 2007b). Global mindset is viewed as a cognitive structure characterized by cosmopolitanism and cognitive complexity (Levy et al., 2007a). While there is very limited empirical research on global mindset development, there is a broad consensus that exposure to diverse cultural and business environments can help cultivate global mindset (e.g. Gupta and Govindarajan, 2002; Arora, et al., 2004). Furthermore, the cosmopolitan approach specifically suggests that cosmopolitan employees seek affiliations with external professional organizations and would devote considerable attention to maintaining extensive professional relations (Goldberg 1976). Thus, the processes through which transnational social capital and global mindset are developed could be causal, reciprocal or iterative.

From an organizational perspective, employees' transnational social capital can be used for the benefit of the firm (Lazarova and Taylor, 2009). Once hired, employees with a high level of transnational social capital – bridging especially – bring with them their extended social networks, which can potentially be accessed and used by others in the firm. Furthermore, these employees can also enhance the firm's social capital within its global network of external constituencies (Griffith and Harvey, 2004). Finally, they can enhance the firm's innovative capacity by acquiring information and knowledge from new and diverse sources and sharing knowledge among and between networks of employees, customers, suppliers and alliance partners (Subramaniam and Youndt, 2005; Subramaniam and Venkatraman, 2001). Subramaniam and Youndt (2005), for example, found that employees' intraorganizational social capital, as well as their relations with customers and suppliers,

significantly influenced both incremental and radical innovative capabilities. Thus, although we conceptualize transnational social capital as an individual-level asset, it can nevertheless be used, potentially to great effect, by organizations.

With the ongoing development of cross-border business, both professionals and firms, in larger and larger numbers, seek to develop and benefit from the kind of transnational social capital accessed by the present construct. Indeed, many firms active in regional and global markets struggle to access, accumulate and hold on to such capital, often by attracting, developing and retaining professionals with significant cross-national experience and networks. It should not be a surprise, for example, given the positive correlations between international experience and transnational social capital, that most large global firms now select their senior executives in part on the basis of their experience living and working abroad (Peiperl and Jonsen 2007; for examples see Carter et al., 2006). At the other end of the professional career ladder, most major MBA programs (and many others, including law and medicine/public health) now provide either optional or required overseas projects or term-long exchanges as part of their curricula, and recruiters consistently list a global orientation, if not direct international experience, as a highly desirable trait in graduate candidates (AACSB International, 2011).

Moving people across national borders, in particular, is a challenge to global firms. Even when they succeed in staffing expatriate assignments, the expatriates may not succeed (Black, Gregerson and Mendenhall, 1992; Tungli and Peiperl, 2009; Earley and Erez, 1997). A better understanding of cross-border phenomena, including the development of social capital, is essential to improve firms' and individuals' ability to succeed at cross-border assignments. Furthermore, the difference between bonding capital, which can contribute to individuals' sense of safety and well-being in unfamiliar locations, and bridging capital, which can help them access resources they and their firms need to succeed in such settings, suggests the

multidimensional construct of transnational social capital as derived here is appropriate to the global business arena.

Thus, notwithstanding the many available selection metrics for professional posts, including expatriate assignments, we offer the transnational social capital construct as a potentially useful, and unique, way of assessing critical attributes for a variety of international roles. Individuals' own bridging and bonding transnational social capital are likely to be important determinants of their ability to work well in unfamiliar situations in new places and across borders generally. In the case of cross-national teams, the presence of sufficient transnational social capital across members may make the difference in the team being able to find the resources and make the connections it needs to succeed. For global firms striving for both overall efficiency and local effectiveness, their collective stock of transnational social capital, if well accessed and deployed, should help enable them to strike that balance. In summary, as organizations struggle to select and develop executives with good global management skills and assets, and to compete effectively across borders, transnational social capital can serve as an important criterion for selecting talent both individually and collectively, using an instrument like the one developed here.

Limitations

Any self-reported measure, of course, is subject to biases, and one way to avoid these would be to use the present instrument as part of a multi-source or 360-degree assessment. We can see the potential for both future research and applications of this kind, in which the measurement of transnational social capital is accomplished through the aggregation of multiple viewpoints in the focal person's network. Of course, anyone providing such inputs would have to be reasonably well connected in the same network in order to be able to judge it accurately.

Another limitation is the use of demographic variables, viewed as antecedents of transnational social capital, to validate the scale. We did not consider other substantive variables that theoretically could be related to transnational social capital. For example, previous research suggests that a set of psychological traits as well as attitudes and orientations may be related to the development and accumulation of social capital in a global context (Bird and Osland, 2004; Bird et al., 2010). In addition, a more comprehensive scale validation procedure would also include variables that are considered outcomes of transnational social capital. A third limitation concerns the use of single-item Yes/No responses for most of the background variables. For example, while we asked whether a respondent lived for at least three months abroad, we did not measure the overall duration of stay(s) overseas. It may be advisable in the future to collect more nuanced background data such as overall duration of stay(s) overseas, the nature and purpose of relocations, or even patterns of cross-border communication. A final limitation of our research is the possibility of common method bias that can inflate the relationships among variables, a potential problem for the construct validity procedure. We took several steps to minimize this potential problem, including using different question formats for the scales and the background variables and separating the scale items and the background questions into different sections of the survey. Additionally, because the background variables concern factual data, common method bias should have been minimized.

Conclusion

In this article, we reported on the development of a scale that assesses access to two forms of social capital – bridging and bonding – within a cross-border network of professional relations and contacts. The results indicate that the final 11-item instrument that measures bridging and bonding transnational social capital in a professional context is

reliable and valid. The confirmatory factor analysis revealed that bridging and bonding are two distinct yet related dimensions of social capital.

The present study makes several contributions to the literature. First, we introduced the concept of “transnational social capital” that more accurately specifies the spatial dimension of social capital, thus tapping into relationships and interactions that span the borders of at least one nation-state. Second, in conceptualizing this construct we focused on those resources – actual or virtual – that an individual specifically derives from cross-border networks of social relationships. This definition suggests that transnational social capital is an individual asset that can be developed and accumulated throughout life – professional or otherwise – through a variety of activities and interactions, which can be internal or external to the firm. Thus, the type of social capital we measure in our study can be both ‘portable’ and firm-specific. Finally, we developed and tested our multidimensional scale through an iteration of exploratory and confirmatory studies that show it is reliable and valid. The instrument provides researchers with a potentially valuable resource for exploring the presence and implications of transnational social capital, and assessing how variations in transnational social capital across individuals affect their career and business success in a global environment.

NOTES

¹ Transnationalism broadly refers to multiple interactions and ties that link people and organizations across the borders of nation-states. Transnationalism, however, does not necessarily imply a global dimension, but rather an interaction across the borders of two or more nation-states – an interaction that can be confined spatially or regionally. Furthermore, the concept of transnationalism is often used to connote ‘contracts, coalitions and interactions across state boundaries’ that do not involve, and are not controlled by governmental agencies (Keohane and Nye, 1981). These transnational activities can be undertaken ‘from above’ by collective actors or ‘from below’ by individuals or informal groups (Smith and Guarnizo, 1998).

² Broadly speaking, individual-level measures can be classified into two categories: Measures that assess the structure of social relations usually through an analysis of the structural properties of social networks (e.g. size, density, composition strength of ties) and the position of a focal actor in these networks (e.g. Burt, 1992; Portes, 1998); and measures that focus on the content or quality of social relations (i.e. bridging versus bonding), as well as on the quality of norms (e.g. trust, reciprocity) governing such exchange relations (Coleman, 1990). The proposed scale of transnational social capital largely falls within the second category of measures.

³ The survey was administered to 314 respondents and 131 surveys were received (41% response rate). After cases with missing data were eliminated, the final pretest sample consisted of 124 respondents.

⁴ The issue of reverse-scored items is highly debated with strong proponents both for and against their use (Schriesheim and Eisenbach, 1995). Reverse-scored items are commonly used to mitigate response pattern bias. However, they often reduce the validity of survey responses and introduce systematic error to a scale (Hinkin, 1995).

⁵ The survey was administered to a sample of 744 participants and a total of 268 surveys was received (36% response rate). After cases with missing data had been eliminated from the analyses, the final confirmatory sample consisted of 229 respondents.

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Appendix. Scale items for initial testing.

Bridging items

Expansiveness of cross-border network

I have an extensive network of professional contacts in other countries.

I routinely cooperate with professionals from other countries.

I make new contacts with professionals in other countries all the time.

Access to information

It easy for me to access my professional network in other countries to find information.

My network in other countries helps me to keep up with new professional developments.

Generalized reciprocity and broad identity

I spend time supporting international professional activities.

I am happy to help out members of my professional network in other countries.

Keeping in touch with my professional network in other countries makes me feel like part of a larger community.*

Keeping in touch with my professional network in other countries makes me feel connected to the bigger picture.

Keeping in touch with my professional network in other countries makes me interested in global issues.*

My professional contacts in other countries come from diverse national origins.

Most of professional contacts in other countries come from a similar cultural to my own (reversed).

Most of my professional contacts are local (reversed).

Bonding items

Emotional and psychological support

I often turn to my professional contacts in other countries for advice when making an important career decision.

I trust several of my professional contacts in other countries to act in my best interests.

If I were at a career crossroads there are several professional contacts in other countries I could talk to about it.

I do not have a professional contact in another country with whom I feel comfortable talking about personal problems (reversed).*

Sometimes I feel left out of my professional network in other countries (reversed).

Access to limited or valuable resources

Some of my professional contacts in other countries would make a significant effort to help me find a new job.

Some of my professional contacts in other countries would put their reputation on the line for me.*

My professional contacts in other countries could get me access to important people or organizations.*

My professional contacts in other countries would give me a positive letter of reference.

If I organized a professional activity (e.g. project, conference, task force) I could get my professional contacts in other countries to participate.

I do not know my professional contacts in other countries well enough to get them to do anything important (reversed).

* Adapted from Williams (2006).

Table 1. Final Scale Items.

Respondents were given the following instructions: ‘The following section includes a series of statements about your professional network and contacts in other countries (*i.e. not your country of residence*). Using the response categories on the seven-point scale below, please indicate how much you agree or disagree with each statement’ (1=strongly disagree, 2=disagree, 3=disagree somewhat, 4=neither agree nor disagree, 5=agree somewhat, 6=agree, 7=strongly agree).

Bridging Dimension

1. I have an extensive network of professional contacts in other countries (BR1).

2. If I organized a professional activity (e.g. project, conference, task force), I could get my professional contacts in other countries to participate (BO1).
3. I make new contacts with professionals in other countries all the time (BR5).
4. I spend time supporting international professional activities (BR9).
5. I routinely cooperate with professionals from other countries (BR10).

Bonding Dimension

1. If I were at a career crossroads, there are several professional contacts in other countries I could talk to about it (BO2).
2. My professional contacts in other countries would give me a positive letter of reference (BO4).
3. Some of my professional contacts in other countries would put their reputation on the line for me (BO5).
4. I trust several of my professional contacts in other countries to act in my best interests (BO6).
5. Some of my professional contacts in other countries would make a significant effort to help me find a new job (B08).
6. My professional contacts in other countries could get me access to important people or organizations (BO11).

Table 2. Confirmatory Factor Analysis.

Correlated factors/indicator	Standardized loading	Z statistic	Composite reliability	Average variance extracted
Bridging			.81	.56

BR1	.85	12.09***		
BO1	.80	11.22***		
BR5	.75	12.24***		
BR9	.62	9.98***		
BR10	.69	9.98***		
Bonding			.82	.53
BO2	.80	13.16***		
BO4	.77	9.65***		
BO5	.71	11.58***		
BO6	.70	7.92***		
BO8	.78	12.67***		
BO11	.59	7.01***		

*p < .05; **p < .01; ***p < .001

Table 3. Descriptive statistics and correlations of transnational social capital with individual background variables.

Measures	Mean	SD	Transnational social capital	Bridging	Bonding
Lived abroad	.81	.39	.31**	.24**	.33**
Worked abroad	.73	.45	.31**	.37**	.40**
Studied abroad	.46	.49	.12*	.04	.18**

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Number of years working in MNC	12.25	7.4	.12*	.17**	.01
Number of international relocations	2.41	2.86	.36**	.31**	.34**
Number of languages	2.76	1.07	.24**	.23**	.23*
<i>Mean</i>			26.69	4.97	5.13
<i>SD</i>			8.72	1.11	.933
<i>α</i>				.85	.87

Due to missing values, the sample size ranges from 342 to 353

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